

2

**MASTER**

**Reactor Core Physics Design and Operating Data  
for Cycles 1, 2, and 3 of the Turkey Point #3  
PWR Power Plant**

---

**NP-827  
Research Project 519-2**

Final Report, July 1978 ✓  
                    

Prepared by

479 3800

NUCLEAR ASSOCIATES INTERNATIONAL CORPORATION (NAI)  
a Subsidiary of  
Control Data Corporation  
6003 Executive Boulevard  
Rockville, Maryland 20852

Prepared for

Electric Power Research Institute  
3412 Hillview Avenue  
Palo Alto, California 94304

EPRI Project Manager  
Robert N. Whitesel  
Nuclear Power Division

**DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED**

for

## **DISCLAIMER**

**This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.**

---

## **DISCLAIMER**

**Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.**

#### LEGAL NOTICE

This report was prepared by Nuclear Associates International Corporation (NAI) as an account of work sponsored by the Electric Power Research Institute, Inc. (EPRI). Neither EPRI, members of EPRI, NAI, nor any person acting on behalf of either: (a) makes any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or (b) assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method, or process disclosed in this report.

## Table of Contents

|                  |                                                        |
|------------------|--------------------------------------------------------|
| 1.0              | INTRODUCTION                                           |
| 2.0              | SUMMARY                                                |
| 3.0              | PROCEDURES                                             |
| 3.1              | Procedure for the Acquisition of PWR Data Design       |
| 3.2              | Procedure for the Acquisition of PWR Operating Data    |
| 3.3              | Procedure for Data Verification                        |
| 3.4              | Procedure for Data Correction and Addition of New Data |
| 4.0              | INPUT TO ANALYTICAL MODELS                             |
| 4.1              | EPRI-CELL                                              |
| 4.2              | EPRI-NODE                                              |
| 4.3              | EPRI-THERM                                             |
| 5.0              | INSTRUMENTATION                                        |
| 5.1              | Incore Instrumentation                                 |
| 5.2              | Ex-core Instrumentation                                |
| PWR CYCLE 1 DATA |                                                        |
| PWR CYCLE 2 DATA |                                                        |
| PWR CYCLE 3 DATA |                                                        |

### TABLES

|       |                                            |
|-------|--------------------------------------------|
| 4.1-1 | EPRI-CELL Sample Input, PWR                |
| 4.1-2 | Region 1 EPRI-CELL Input Data Sources, PWR |
| 4.1-3 | Thimble EPRI-CELL Input Data Sources, PWR  |
| 4.2-1 | EPRI-NODE-P Input Data Sources             |
| 4.3-1 | EPRI-THERM-P Input Data Sources            |

Blank Page

#### ACKNOWLEDGEMENT

The collection of the data presented in this volume was made possible by the cooperation and assistance of the Nuclear Operation, Power Resources Department of the Florida Power and Light Company. The contributions of Roger Blake, Nuclear Specialist are noted in particular.

Project Manager for the Electric Power Research Institute was Dr. Robert N. Whitesel who contributed many helpful suggestions as the work progressed. The NAI contributors included J.R. Fisher, R.L. Grow, B.M. Rothleder, C. Ho, E.C. Ferat, E.D. Kendrick, D.A. Lampe and A.C. Schafer.

## 1.0 INTRODUCTION

The purpose of this report is to provide operating reactor reference data for use in the qualification of the package of codes referred to as the Advanced Recycle Methodology Package (ARMP). The data were assembled and the results are reported under contract RP519-2 between the Electric Power Research Institute (EPRI) and Nuclear Associates International Corporation (NAI). Questions concerning the material presented should be directed to the Electric Power Research Institute, attention of Dr. R. N. Whitesel, Project Manager.

The objective of this work has been to obtain and document a complete set of reactor operating data from a prototypical PWR extending through three cycles of operation.

The data forms utilized in this report are the result of several tasks which established the data set requirements, the design data, and the operating data requirements for the Turkey Point #3 Nuclear Power Plant. The PWR operating data includes PWR history, statepoint, hot zero-power and transient data. After the format and content of the data forms were established, procedures were written for the acquisition of design data, the acquisition of operating data, data verification, and data correction or addition of new data. The data forms and procedures were then transmitted to Florida Power and Light Co. (FP&L) representatives for comment. After the comments were received and resolved, arrangements were made to visit the FP&L offices for the collection of data. The collected data were reduced, where necessary, and typed on the forms presented in this report. The final data were verified by an NAI project engineer and are reproduced in this document. The report is issued in loose-leaf form so that the data can be corrected and/or supplemented as required.

The use of these data as input to the analytical models EPRI-CELL, EPRI-NODE, and EPRI-THERM are given in Section 4.0. It is assumed that those who use the data have the necessary nuclear engineering background to understand the terms and data manipulation outlined to provide input to the analytical models.

## 2.0 SUMMARY

Procedures were written and used for the collection of design and operating data from a pressurized water reactor (PWR). The design and operating data were assembled carefully in tabular form and have been verified by experienced nuclear engineers of both FP&L and NAI. Data sources are identified on the forms to permit a quality audit. The resulting tables provide a source of reactor data for input to the ARMP code package which has not been available previously in a single document. A link is provided between these data and input to the EPRI-CELL, EPRI-NODE, and EPRI-THERM codes by reference to the appropriate tables and data items. Notations helpful for input preparation are included.

### 3.0 PROCEDURES

#### 3.1 Procedure for the Acquisition of PWR Design Data

##### 3.1.1 Scope

This procedure applies to the acquisition of PWR design data from the Turkey Point #3 reactor owned by Florida Power and Light Co. (FPL).

##### 3.1.2 Purpose

The purpose of this procedure is to assure a uniform high quality and completeness of information gathered for input to the EPRI-CELL, EPRI-NODE, and EPRI-THERM codes.

##### 3.1.3 Definitions

FSAR = Final Safety Analysis Report

##### 3.1.4 References

1. FSAR
2. Core and Fuel Assembly Drawings
3. Fuel Procurement Documents
4. Material Specifications

##### 3.1.5 Pre-requisites

1. Obtain current reference material or access to the same.
2. Request assistance of Utility Personnel.
3. Arrange for a visit to Utility offices and/or reactor site.
4. Obtain blank forms to be filled out during data acquisition.

### 3.1.6 Data Acquisition Procedure

1. Complete forms from data sources below, referencing sources of entries.
2. Obtain nuclear, thermal and hydraulic design parameters from the FSAR:
  - a. nuclear and control parameters: Chapter 3
  - b. thermal-hydraulic parameters: Chapter 3
  - c. instrumentation: Chapter 7
3. Obtain fuel loading and material information from fuel procurement documentation and material specifications or QC records.
4. Obtain additional information from supplementary sources such as in-house documents and other documents in the public domain.
5. Obtain additional information from as-built drawings and other documents available to the Utility.
6. Request that Utility representative verify the data entered.
7. Consult EPRI about items for which information is not available. Request EPRI assistance to obtain the needed data.
8. Note the unavailability of data not available.
9. Obtain as-built drawings and other pertinent documents, whenever possible. Make Xerox copies to provide backup documentation.
10. Convert design data to appropriate units as indicated on the data collection forms.
11. Data will be originally entered on the forms by hand and then typed on forms to be used in the final report.
12. Verify the typed data in accordance with the Procedure for Data Verification (Section 3.3) and sign each sheet thus verified in the space provided on the forms.

### 3.2 Procedure for the Acquisition of PWR Operating Data

#### 3.2.1 Scope

This procedure applies to the acquisition of PWR operating data from the Turkey Point #3 reactor owned by Florida Power and Light Co. (FPL).

#### 3.2.2 Purpose

The purpose of this procedure is to assure a uniform high quality and completeness of information gathered for input to the EPRI-CELL, EPRI-NODE, and EPRI-THERM codes.

#### 3.2.3 Definitions

FSAR = Final Safety Analysis Report

NSSS = Nuclear Steam Supply System

NCCO = Nuclear Control Center Operator

#### 3.2.4 References

1. Operating Log Books
2. NSSS process computer output
3. Strip charts and other charts
4. FSAR
5. Technical Specification
6. Other Plant Records

#### 3.2.5 Pre-requisites

1. Request assistance of Utility Personnel.
2. Arrange for a visit to the reactor site and/or Utility office where records are kept.
3. Obtain blank forms to be filled out during data acquisition.

### 3.2.6 Data Acquisition Procedure

1. Operating data can be obtained only from the Utility which operates the plant. The initial step is to send a copy of the data acquisition forms to the Utility representative for review and comment, requesting their assistance in collection of the data.
2. Schedule a visit to the site to assist in the collection and verification of data.
3. The primary sources of operating data for the Turkey Point #3 reactor are:
  - a. Computer program TPTRAC output
  - b. NCCO Log Sheets
  - c. Daily Water Report
  - d. In-core detector analysis program output
  - e. Semi-Annual Operating Report.
4. Care should be exercised in choosing data to ensure that operating conditions are representative; e.g., steady-state operating conditions existed when steady-state operating data is desired.
5. Organize and match the various operating data sets to construct a description of the operating history. The data are to be separated into four categories:
  - a. Operating history
  - b. Statepoints
  - c. HZP data (PWR)
  - d. Transient data
6. Operating history data are to be converted into graphical form to represent the time history of power, flow and subcooling with a nominal time increment of 250-500 MWD/MT. The data shall represent the average over the time interval.

7. For each statepoint, derive a set of salient parameters representing the operating conditions of that statepoint. Operating data including whole core TIP traces will be used as input.
8. Obtain PWR 'hot zero power' (HZP) and transient data for benchmark calculations.
9. Convert operating data to appropriate units as indicated on the data collection forms.
10. Data will be originally entered on the forms by hand and then typed on forms to be used in the final report.
11. Verify the typed data in accordance with the Procedure for Data Verification (Section 3.3) and sign each sheet thus verified in the space provided on the forms.

### 3.3 Procedure for Data Verification

#### 3.3.1 Scope

This procedure applies to data acquired from the Turkey Point #3 reactor (PWR) owned by the Florida Power and Light Co. (FPL).

All data which is entered into the data formats shall be subjected to this verification procedure. The data consists of the reference design parameters, the core and component description, and the operating data. All data will be verified by either the independent check for reasonableness, independent spot check, or the independent audit. The definition of these types of verification and the identification of which segments of data are to be verified by a given procedure are outlined below.

#### 3.3.2 Purpose

The purpose of this procedure is to assure a uniform high quality and completeness of information gathered for input to the EPRI-CELL, EPRI-NODE, and EPRI-THERM codes.

#### 3.3.3 Independent Check for Reasonableness

This verification procedure provides for an independent check of all data which is contained on the data formats. This type of verification will ensure that all data has been reviewed by an individual other than the one who entered the data into the format. The steps to be followed in the independent check for reasonableness are:

1. Verify that each data item is complete; i.e., all columns contain the appropriate entry.

2. Based on engineering judgement, substantiate that all entries are reasonable; i.e., the data values entered fall into a range of expected values based on prior experience. Entries which cannot be verified by this technique should be subjected to the spot check verification procedure outlined below.
3. All entries which are rejected by this check for reasonableness shall be subjected to the spot check procedure.

#### 3.3.4 Spot Check Verification

The spot check verification procedure provides for an independent check of all data items rejected by the independent check for reasonableness and those items listed below. The intent of this procedure is to provide an independent check of both the final data value entered into the data format and the reduction of the data item from raw data if appropriate. The data items subjected to this procedure are key items for developing an accurate core model. All of the following items shall be verified by the spot check procedure:

1. All items rejected by the check for reasonableness procedure.
2. All operating data items contained in the PWR statepoints.
3. All design data contained in the core and component description formats.

The procedure to be followed for the spot check verification is outlined below:

- a. Each data item subjected to this verification shall be independently checked to ensure that the value entered into the format agrees with and/or was correctly reduced from the raw data source.
- b. Any data item which cannot be verified shall be rejected and subjected to the independent audit.

### 3.3.5 Independent Audit

The independent audit procedure provides for the most thorough form of data verification. All data items rejected by the spot check procedure and those items listed below will be subjected to this procedure. The intent of this procedure is to eliminate any data discrepancies and to provide verification of those data items which could have been subjected to interpretational judgment. The following items shall be subjected to this procedure:

1. All data items rejected from the spot check procedure.
2. All data items which have been entered into the data format with the comment column entry of "subject to interpretation".
3. All data items which have been entered into the data format with the comment column entry of "conflicting sources".

The steps to be followed in the independent audit are:

- a. All data items subjected to this procedure shall be independently reviewed to establish the correct data entry.
- b. The data items which were rejected by the spot check procedure shall be reviewed to determine the correct entry. If necessary, data sources other than the one listed in the data format should be utilized to determine the correct entry. If the data item cannot be satisfactorily resolved the best estimate should be entered into the format along with the range of error or tolerance for the data value.
- c. The data items which were entered with the comment "subject to interpretation" shall be reviewed to determine the correct entry. If necessary, data sources other than the one listed in the data format should be utilized to determine the correct entry. If the data item cannot be satisfactorily resolved the best estimate should be entered into the format along with the range of error or tolerance for the data value.

- d. The data items which were entered with the comment "conflicting sources" shall be reviewed to determine the correct entry. If necessary, data sources other than the one listed in the data format should be utilized to determine the correct entry. If the data item cannot be satisfactorily resolved the best estimate should be entered into the format along with the range of error or tolerance for the data value.

### 3.4 Procedure for Data Correction and Addition of New Data

#### 3.4.1 Scope

This procedure applies to data acquired from the Turkey Point #3 reactor (PWR) owned by the Florida Power and Light Co. (FPL).

All data which is either a correction or an addition to the data formats shall be entered into the data formats per this procedure. An addition to the data formats is considered to be any data item which is not contained in the current revision of the data format. A correction is considered to be the change of a data item which is contained in the current revision of the data format. All corrections and additions shall be subjected to the Procedure for Data Verification.

#### 3.4.2 Purpose

The purpose of this procedure is to assure a uniform high quality and completeness of information gathered for input to the EPRI-CELL, EPRI-NODE, and EPRI-THERM codes.

#### 3.4.3 Data Additions

All data additions shall be entered into the data format in accordance with the steps outlined below:

1. All columns for the data item being entered must contain an entry.
2. The value for the data item is entered in the value column.
3. The source from which the data value was obtained or derived is entered into the source column.
4. The date of verification will be entered in the space provided by the individual performing the independent data verification.

5. The comment column should contain one of the following types of entries:
  - a. "conflicting sources" if the data item was found to have different sources. The value believed to be correct should be entered in the value column, both sources should be entered into the source column. This type of data discrepancy will be resolved by the verification procedure.
  - b. "subject to interpretation" if there is any doubt about the validity of the value entered into the data format. This type of entry will be resolved by the verification procedure.
  - c. "none" if no comment is necessary or appropriate.
  - d. or any other comment which may be applicable to the data entry.

#### 3.4.4 Data Corrections

All data corrections shall be entered into the data format in accordance with the following procedure:

1. The data formats are of the loose-leaf design such that when a data item entry is to be corrected the entire sheet shall be removed and replaced with the corrected sheet.
2. The corrected sheet shall contain the following entries:
  - a. The revision number and date shall be updated to reflect this change.
  - b. The comment column for the data item(s) changed shall contain the entry of "changed mm/dd/yy" and any other applicable comment.
  - c. The verification space shall contain the date entry mm/dd/yy for which this corrected sheet was verified.

## 4.0 INPUT TO ANALYTICAL MODELS

### 4.1 EPRI-CELL (PWR)

The following description assumes familiarity with the ARMP EPRI-CELL Document (Part II, Chapter 5). Relevant EPRI-CELL input for 4 cases (Regions 1, 2, and 3 fuel, and thimble) is shown in Table 4.1-1. The letter Y is used for proprietary materials and letters XXXXX are used for proprietary data. Tables 4.1-2 and 4.1-3 list sources for the various input items of Table 4.1-1. The seven procedures enumerated under these sources are discussed below.

Procedure 1 --- The extra region includes control rod (or potential control rod) thimbles, the instrument thimble, and the surrounding gap water associated with an assembly. XTRA is the volume fraction of the total assembly associated with the extra region.

Procedure 2 --- The buckling is calculated as the total core spherical buckling with 6 cm reflector savings added. Alternatively, the cylindrical buckling may be used.

Procedure 3 --- The resonance temperature is that temperature which produces the measured (or expected) Doppler defect in the nodal XYZ calculation. Typically, 1200F will produce  $\Delta\rho_{\text{DOP}} = 1.2\%$ .

Procedure 4 --- The non-uniform Dancoff correction accounts for the fact that not all fuel rods are separated by one rod pitch. (A fuel rod is characterized by 4 faces.) Those rods adjacent to a thimble are separated by two rod pitches

(DPITCH = 1.126, CFRAC =  $\frac{4*21}{4*204} = .1029$ ), and those rods adjacent to the gap are separated by the distance "pitch + gap"

(DPITCH = .583, CFRAC =  $\frac{15*4}{4*204} = .07353$ ).

Procedure 5 --- If not available by assay, the U234 weight fraction may be approximately determined from U235 wt. fraction times .008.

Procedure 6 --- The boron concentration should approximately follow the predicted boron letdown curve until 400 ppm, and thereafter be kept constant.

Procedure 7 --- Volume fractions are calculated in standard fashion. The following caveats are in order: (1) the grid should be apportioned between moderator and extra region; (2) the extra region includes all thimbles and the inter-assembly gap.

TABLE 4.1-1 EPRI-CELL Sample Input, PWR

## EPRIDATA PWR TKPT REG1

```

$ENGNR PELOR=.18295,CLADOR=.211,CLADIR=.1867,PITCH=.563,
XTRA=.09782,MESH=0,BUCKL=.0002703,
TFUEL=1200.,TCLAD=620.,TMOD=575.4,PRESS=2250.,
TRES(1)=4*1200.,
DPITCH(1)=1.126,.583,CFRAC(1)=.1029,.07353,
WF235=1.861-2,WF234=XXXXX,WF236=XXXXX,
PPMB(1)=1100.,800.,700.,600.,
RHFUEL=.9398,DISH=XXXXX,
VFMOD(5)=XXXXX,VFXTRA(2)=8.325-2,VFXTRA(Y)=XXXXX,VFXTRA(5)=XXXXX,
CLAD=1,GRID=2,SPECT=1,
POWR=182.,NTS=4,
TIMSTP(1)=100.,400.,1500.,2000.,
OPTION(7)=1,OPTION(17)=2,OPTION(21)=1,1,1,
$END

```

## EPRIDATA PWR TKPT REG2

```

$ENGNR PELOR=.18295,CLADOR=.211,CLADIR=.1867,PITCH=.563,
XTRA=.09782,MESH=0,BUCKL=.0002703,
TFUEL=1200.,TCLAD=620.,TMOD=575.4,PRESS=2250.,
TRES(1)=4*1200.,
DPITCH(1)=1.126,.583,CFRAC(1)=.1029,.07353,
WF235=2.560-2,WF234=XXXXX,WF236=XXXXX,
PPMB(1)=1100.,800.,700.,600.,
RHFUEL=.9297,DISH=XXXXX,
VFMOD(5)=XXXXX,VFXTRA(2)=8.352-2,VFXTRA(Y)=XXXXX,VFXTRA(5)=XXXXX,
CLAD=1,GRID=2,SPECT=1,
POWR=182.,NTS=4,
TIMSTP(1)=100.,400.,1500.,2000.,
OPTION(7)=1,OPTION(17)=2,OPTION(21)=1,1,1,
$END

```

## EPRIDATA PWR TKPT REG3

```

$ENGNR PELOR=.18245,CLADOR=.211,CLADIR=.1867,PITCH=.563,
XTRA=.09782,MESH=0,BUCKL=.0002703,
TFUEL=1200.,TCLAD=620.,TMOD=575.4,PRESS=2250.,
TRES(1)=4*1200.,
DPITCH(1)=1.126,.583,CFRAC(1)=.1029,.07353,
WF235=3.101-2,WF234=XXXXX,WF236=XXXXX,
PPMB(1)=1100.,800.,700.,600.,
RHFUEL=.9197,DISH=XXXXX,
VFMOD(5)=XXXXX,VFXTRA(2)=8.382-2,VFXTRA(Y)=XXXXX,VFXTRA(5)=XXXXX,
CLAD=1,GRID=2,SPECT=1,
POWR=182.,NTS=4,
TIMSTP(1)=100.,400.,1500.,2000.,
OPTION(7)=1,OPTION(17)=2,OPTION(21)=1,1,1,
$END

```

## EPRIDATA PWR TKPT THIM

```

$ENGNR BUCKL=.0002703,TMOD=575.4,PRESS=2250.,
NTS=4.
SPECT=1,PPMB(1)=600.,1100.,600.,0.0,
VFMOD(2)=.08808,VFMOD(5)=XXXXX,VFMOD(Y)=XXXXX,
OPTION(17)=2,OPTION(21)=1,1,1,
$END

```

TABLE 4.1-2      Region 1 EPRI-CELL Input Data Sources, PWR

| <u>Input Item</u> | <u>Source</u>                                                                              |
|-------------------|--------------------------------------------------------------------------------------------|
| PELOR             | Table 2.2, Item 5.4                                                                        |
| CLADOR            | Table 2.2, Item 5.9                                                                        |
| CLADIR            | Table 2.2, Item 5.10                                                                       |
| PITCH             | Table 2.2, Item 4.4                                                                        |
| XTRA              | Table 2.2, Items 4.2, 4.3, 4.7, 4.10; See Procedure 1                                      |
| BUCKL             | See Procedure 2                                                                            |
| TFUEL             | Table 2.1, Item 12                                                                         |
| TCLAD             | Table 2.1, Item 13                                                                         |
| TMOD              | Table 2.1, Item 11                                                                         |
| PRESS             | Table 2.1, Item 4                                                                          |
| TRES              | See Procedure 3                                                                            |
| DPITCH            | See Procedure 4                                                                            |
| CFRAC             | See Procedure 4                                                                            |
| WF235             | Table 2.3, Part A, Item 9; or Table 2.1, Item 19                                           |
| WF234             | Table 2.3, Part A, Item 4; See Procedure 5                                                 |
| WF236             | Table 2.3, Part A, Item 5                                                                  |
| PPMB              | See Procedure 6                                                                            |
| RHFUEL            | Table 2.2, Item 5.2; ARMP Documentation, Part II, Chapter 5, p. 5-61                       |
| DISH              | Table 2.2, Item 5.5                                                                        |
| VFMOD             | Table 2.2, Items 4.4, 4.11, 4.12, 4.13, 5.7, 5.9, 5.10; See Procedure 7                    |
| VFXTRA            | Table 2.2, Items 2.1, 2.3, 2.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.11, 4.12, 4.13; See Procedure 7 |
| POWR              | Table 2.1, Item 3                                                                          |

TABLE 4.1-3      Thimble EPRI-CELL Input Data Sources, PWR

| <u>Input Item</u> | <u>Source</u>                                                                              |
|-------------------|--------------------------------------------------------------------------------------------|
| BUCKL             | See Procedure 2                                                                            |
| TMOD              | Table 2.1, Item 11                                                                         |
| PRESS             | Table 2.1, Item 4                                                                          |
| VFMOD             | Table 2.2, Items 2.1, 2.3, 2.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.11, 4.12, 4.13; See Procedure 7 |

#### 4.2 EPRI-NODE

Familiarity with the ARMP EPRI-NODE Documents (Part II, Chapters 14 and 15) is assumed. Only input items pertinent to the data tables are discussed. Table 4.2-1 lists sources for the various input items of EPRI-NODE-P.

TABLE 4.2-1 EPRI-NODE-P Input Data Sources

| <u>Card Type</u> | <u>Input Item</u> | <u>Source</u>                                  |
|------------------|-------------------|------------------------------------------------|
| 01               | $\Delta X$        | Table 2.2, Item 4.2                            |
|                  | $\Delta Z$        | Table 2.2, Item 5.6 (with Card Type 02, Kmax)  |
|                  | $p_{th}$          | Table 2.4, Part A, Item 1                      |
|                  | $p_{rated}$       | Table 2.1, Item 1                              |
|                  | Flow1             | Table 2.1, Item 5                              |
|                  | Subcl             | Table 2.1, Items 4, 10; Steam Tables           |
| 03               | B1-B47,B54        | All data are processed from PDQ or EPRI-CELL   |
|                  | B48               | Table 2.2, Item 2.3                            |
|                  | B49               | Table 2.2, Item 5.9                            |
|                  | B50               | Table 2.2, Item 4.4                            |
|                  | B51               | Table 2.2, Item 4.2                            |
|                  | B52               | Table 2.2, Item 4.5                            |
|                  | B53               | Table 2.2, Item 4.3                            |
| 04               | —                 | Table 2.2, Items 1.1, 1.3                      |
| 05               | —                 | Table 2.2, Items 1.7, 1.8                      |
| 13               | C1,C2,C3          | Table 2.1, Item 4; Steam Tables                |
| XENON            | XPTH              | Table 2.4, Part A, Item 1; Table 2.2, Item 1.1 |
|                  | PSIA              | Table 2.1, Item 4                              |
|                  | RC                | Table 2.1, Item 14                             |
|                  | FEDQ              | Table 2.1, Item 16                             |
|                  | FEDH              | Table 2.1, Item 15                             |
|                  | XNC               | Table 2.2, Item 1.1                            |
| DETECTOR         | MON               | Table 2.2, Item 1.10                           |

#### 4.3 EPRI-THERM

Familiarity with the ARMP EPRI-THERM Documents (Part II, Chapters 16 and 17) is assumed. Only input items pertinent to the data tables are discussed. Table 4.3-1 lists sources for various input items of EPRI-THERM-P.

TABLE 4.3-1 EPRI-THERM-P Input Data Sources

| <u>Card No.</u> | <u>Input Item</u> | <u>Source</u>                                                   |
|-----------------|-------------------|-----------------------------------------------------------------|
| 2               | NR                | Table 2.2, Item 4.3                                             |
|                 | NC                | Table 2.2, Item 1.1                                             |
|                 | NRODS             | Table 2.2, Item 4.5                                             |
| 3               | PCTP              | Table 2.4, Part A, Item 1                                       |
|                 | PUMPH             | Table 2.1, Item 8                                               |
|                 | HIN               | Table 2.1, Items 4, 10; Steam Tables                            |
| 4               | MWT               | Table 2.1, Item 1                                               |
|                 | RC                | Table 2.1, Item 14                                              |
|                 | PIN               | Table 2.1, Item 4                                               |
|                 | TIN               | Table 2.1, Item 10                                              |
| 5               | GPMD              | Table 2.1, Items 4, 5, 11; Steam Tables                         |
|                 | R                 | Table 2.1, Items 5, 6                                           |
|                 | RHOIN             | Table 2.1, Items 4, 10; Steam Tables                            |
|                 | ELCK3             | Table 2.2, Items 4.2, 4.3, 5.9                                  |
|                 | FSL               | Table 2.2, Item 5.11                                            |
| 6               | TSATIN            | Table 2.1, Item 4; Steam Tables                                 |
|                 | DR                | Table 2.2, Item 5.9                                             |
|                 | HSAT              | Table 2.1, Item 4; Steam Tables                                 |
|                 | FEDH              | Table 2.1, Item 15                                              |
|                 | FEDQ              | Table 2.1, Item 16                                              |
| 7, 8            | SP                | Table 2.2, Item 4.11                                            |
| 9               | CLTH              | Table 2.2, Items 5.9, 5.10                                      |
|                 | ROXIDE            | Table 2.2, Item 5.4                                             |
| 10              | A(L)              | Table 2.1, Item 7; Table 2.2, Item 1.1                          |
|                 | VINC(L)           | Table 2.1, Items 4, 6, 7, 11; Table 2.2, Item 1.1; Steam Tables |
|                 | ELCK1(L)          | Table 2.2, Items 4.2, 4.3, 5.9                                  |
|                 | ELCK2(L)          | Table 2.1, Item 9                                               |
|                 | DE(L)             | Table 2.1, Item 6; Table 2.2, Items 1.1, 4.3, 5.9               |
|                 | NO(L)             | Table 2.2, Item 4.5                                             |
|                 | DEH(L)            | Table 2.2, Items 4.5, 5.9                                       |

## 5.0 INSTRUMENTATION

This section provides supplemental information to the data formats used in this report and describes the type and location of the sensors and other instrumentation utilized to measure flow rates, temperatures, pressure, neutron flux and power. The discussion in this section describes how the operating data contained in Table 2.4 (Parts A, B, and C) were derived and what calculations, if any, were performed to provide information for the ARMP computer codes. The information in this section was obtained from the Turkey Point #3 FSAR (Chapters 3, 4 and 7) and EPRI report TPS75-619, "Review of In-Core Power Distribution Measurements -- Technical Status and Problems"; the reader is referred to these documents for additional information.

### 5.1 In-Core Instrumentation

The in-core instrumentation consists of thermocouples to measure fuel assembly coolant outlet temperatures and flux thimbles to measure the neutron flux distribution within the reactor core. The locations of the thermocouples and flux thimbles are shown in Table 2.2, Diagram 2.2-4. The thermocouple data are not required for the data formats; therefore, the thermocouples are described only briefly below. The inter-calibrated data from in-core traverses (Table 2.4 - Part B - Item 9) are obtained from the raw detector readings and adjusted for axial alignment, background, drift in power and scale factor. These adjustments are performed by the process computer or an off-line computer program prior to use in a core modeling application

The flux thimbles in selected fuel assemblies accommodate a fission chamber which traverses the length of the assembly. The movable fission chambers produce a current proportional to the fission rate in the chamber. As the chamber traverses the fuel assembly, the detector output current provides a measure of the relative neutron density in the instrument tube. The current is converted analytically to the relative fission rate or power distribution in the surrounding assembly. The fission chamber is a stainless steel encapsulated neutron detector 0.188 inches in diameter and 2.1 inches in length.

The chromel-alumel thermocouples are threaded into guide tubes that penetrate the reactor vessel head through seal assemblies and terminate at the exit flow end of the fuel assemblies. The thermocouples are enclosed in stainless steel sheaths within the guide tubes to facilitate replacement when necessary. The thermocouples are located near the top of the fuel assembly and provide an indication of the moderator temperature at the exit of the fuel assembly.

## 5.2 Ex-Core Instrumentation

The ex-core instrumentation of interest for this report is that which measures coolant flow rate, temperature, pressure and neutron flux. Figures 5.2-1 and -2 are copies of selected NCCO log sheets for cycle 1 of Turkey Point #3 which were used in deriving the data in Table 2.4, Part B, statepoint at 6600 MWD/MTU exposure. Figure 5.2-3 is a diagram of the reactor coolant system and shows instrumentation location and instrument numbers. An example of the use of these two types of diagrams is to find the reactor coolant loop flow on the NCCO log sheet; note that for loop A the instrument numbers are 414, 415 and 416; then looking at the reactor coolant system diagram, these instrument numbers can be found in the cold leg of loop A just outside of the steam generator outlet. In a similar manner the location of temperature and pressure instrumentation can be determined. The following paragraphs briefly describe the instrumentation type and location used in deriving the data.

The reactor coolant loop flow from the log sheets is used to derive the total core flow (item 2, Table 2.4, Part B). Elbow taps are used in the reactor coolant system as an instrument device that indicates the status of the reactor coolant flow. The basic function of this device is to provide information as to whether or not a reduction in flow rate has occurred. The correlation between flow reduction and elbow tap read out is:

$$\frac{\Delta P}{\Delta P_o} = \left( \frac{W_o}{W} \right)^{1.8}$$

where:  $\Delta P_o$  = referenced pressure differential at  
referenced flow  $W_o$

$W_o$  = referenced flow

$\Delta P$  = pressure differential at flow  $W$

$W$  = flow

The full flow reference point is established during initial unit startup.

The system pressure (item 3, Table 2.4, Part B) is obtained from the log sheets under the heading RCS PRESS. The location of the pressure tap is illustrated in Figure 5.2-3 showing that it is measured in the pressurizer and not in the reactor vessel.

The core inlet temperature (item 5, Table 2.4, Part B) is calculated from the T Avg and  $\Delta T$  data on the log sheets. The coolant temperature sensor arrangement is to have hot and cold leg resistance temperature detectors located in reactor coolant bypass loops. A bypass loop from upstream of the steam generator to downstream of the steam generator is used for the hot leg resistance temperature detectors and a bypass loop from downstream of the reactor coolant pump to upstream of the pump is used for the cold leg resistance temperature detectors.

The ex-core nuclear instrumentation consists of eight independent channels - 2 for source range, 2 for intermediate range and 4 for power range. The various detectors associated with the eight primary channels are shown in their relative core position in Figure 5.2-4.

The six detector radial locations contain a total of eight detectors (two proportional counters, two compensated ionization chambers and four dual section uncompensated ionization chamber assemblies) installed around the reactor in the primary shield. The power range channels are of primary interest to this report and consist of the four dual section, uncompensated ionization chambers (shown in Figure 5.2-4 as long ion chamber). Each chamber provides a current signal output from each of two sections and is proportional to upper and lower core neutron flux respectively. The signals from these detectors provide the four indications of total core power shown in the NCCO log sheets under Reactor Power Level, Power Range, %.

| TIME | FIGURE 5.2-1 NCC0 Log Sheet Sample |                   |                       |                          |                     |                             |                    |                    |     |     |     |     |                                                    |      |      |      | ROD BANK D STEP COUNTERS |      | CST LEVEL | PWT LEVEL (gal x1000) | FEEDWATER PRESSURE | S/G FEED PUMP SUCTION PRESSURE |     | HEATER DRAIN PUMP FLOW (gpm x 100) |
|------|------------------------------------|-------------------|-----------------------|--------------------------|---------------------|-----------------------------|--------------------|--------------------|-----|-----|-----|-----|----------------------------------------------------|------|------|------|--------------------------|------|-----------|-----------------------|--------------------|--------------------------------|-----|------------------------------------|
|      | PRT LEVEL (%)                      | PRT PRESS. (psig) | BORIC ACID INTEGRATOR | PRIMARY WATER INTEGRATOR | REACTOR POWER LEVEL |                             |                    |                    |     |     |     |     | FLUX DIFFERENCE + TOP OF CORE - BOTTOM OF CORE ± % |      |      |      | GP 1                     | GP 2 |           |                       |                    |                                |     |                                    |
|      |                                    |                   |                       |                          | SOURCE RANGE CPS    | INTER-MEDIATE RANGE AMPERES | POWER RANGE %      |                    |     |     |     |     |                                                    |      |      |      |                          |      |           |                       |                    |                                |     |                                    |
|      |                                    |                   |                       |                          |                     |                             |                    |                    |     |     |     |     |                                                    |      |      |      |                          |      |           |                       |                    |                                |     |                                    |
|      |                                    |                   |                       |                          |                     |                             | N31                | N32                | N35 | N36 | N41 | N42 | N43                                                | N44  | N41  | N42  |                          |      |           |                       |                    | N43                            | N44 |                                    |
| MN   | 82                                 | 6                 | 411299                | 765493                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 97  | 97  | 97  | 97  | +2.0                                               | +2.0 | +2.0 | +1.0 | 211                      | 211  | 95        | 146                   | 1050               | 300                            | 300 | 58                                 |
| 1    |                                    |                   | 411649                | 765700                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 82  | 82  | 82  | 82  | +1.0                                               | +1.0 | +1.5 | 0    | 197                      | 197  |           |                       |                    |                                |     |                                    |
| 2    |                                    |                   | 411649                | 765803                   | -                   | -                           | 9x10 <sup>-3</sup> | 8x10 <sup>-3</sup> | 71  | 71  | 70  | 70  | +1.5                                               | +1.0 | +1.0 | +1.5 | 197                      | 197  |           |                       |                    |                                |     |                                    |
| 3    |                                    |                   | 411649                | 766715                   | -                   | -                           | 9x10 <sup>-3</sup> | 8x10 <sup>-3</sup> | 72  | 72  | 72  | 72  | +3.5                                               | +3.0 | +3.0 | +2.0 | 207                      | 207  |           |                       |                    |                                |     |                                    |
| 4    | 82                                 | 6                 | 411649                | 767527                   | -                   | -                           | 10 <sup>-3</sup>   | 9x10 <sup>-4</sup> | 83  | 82  | 82  | 84  | +3.5                                               | +3.5 | +3.0 | +3.0 | 214                      | 214  | 90        | 139                   | 1200               | 340                            | 340 | 43                                 |
| 5    |                                    |                   | 411649                | 767730                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 84  | 84  | 84  | 84  | +1.5                                               | +1.5 | +1.5 | +1.5 | 198                      | 198  |           |                       |                    |                                |     |                                    |
| 6    |                                    |                   | 411649                | 767730                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 90  | 90  | 90  | 90  | +1.5                                               | 0    | 0    | -1.5 | 201                      | 200  |           |                       |                    |                                |     |                                    |
| 7    |                                    |                   | 411649                | 767730                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 90  | 90  | 90  | 90  | -3.0                                               | -3.5 | -3.5 | -4.0 | 189                      | 189  |           |                       |                    |                                |     |                                    |
| 8    | 82                                 | 6                 | 411799                | 767779                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 95  | 95  | 95  | 95  | -4.0                                               | -4.8 | -4.8 | -5.5 | 200                      | 200  | 97        | 139                   | 1060               | 310                            | 310 | 50                                 |
| 9    |                                    |                   | 411947                | 767871                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 97  | 96  | 96  | 96  | -3.0                                               | -3.8 | -3.8 | -4.0 | 221                      | 221  |           |                       |                    |                                |     |                                    |
| 10   |                                    |                   | 411979                | 767894                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 97  | 97  | 97  | 97  | -3.5                                               | -4.0 | -3.8 | -4.5 | 216                      | 216  |           |                       |                    |                                |     |                                    |
| 11   |                                    |                   | 412029                | 767940                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 97  | 97  | 97  | 97  | -3.0                                               | -3.8 | -3.5 | -4.5 | 221                      | 221  |           |                       |                    |                                |     |                                    |
| 12N  | 82                                 | 6                 | 412079                | 767962                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | -3.0                                               | -3.5 | -3.0 | -4.0 | 223                      | 223  | 96        | 135                   | 1050               | 300                            | 300 | 56                                 |
| 1    |                                    |                   | 412079                | 767962                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 95  | 95  | 95  | 95  | -2.0                                               | -3.0 | -3.0 | -3.5 | 223                      | 223  |           |                       |                    |                                |     |                                    |
| 2    |                                    |                   | 412079                | 768165                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 97  | 97  | 97  | 97  | -2.0                                               | -2.5 | -2.0 | -3.0 | 223                      | 223  |           |                       |                    |                                |     |                                    |
| 3    |                                    |                   | 412079                | 768165                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | -1.0                                               | -2.0 | -1.5 | -2.5 | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 4    | 82                                 | 5                 | 412079                | 768165                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | -1.5                                               | -1.0 | -1.0 | -1.5 | 222                      | 222  | 96        | 138                   | 1050               | 300                            | 300 | 54                                 |
| 5    |                                    |                   | 412079                | 768165                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +1.5                                               | 0.0  | 0    | -1.0 | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 6    |                                    |                   | 412079                | 768165                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +1.0                                               | +1.5 | +1.0 | -1.5 | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 7    |                                    |                   | 412079                | 768268                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +2                                                 | +1.5 | +1.5 | +1   | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 8    | 82                                 | 5                 | 412079                | 768269                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +2.5                                               | +2.0 | +2.0 | +1.0 | 222                      | 222  | 97        | 136                   | 1050               | 300                            | 300 | 53                                 |
| 9    |                                    |                   | 412079                | 768371                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +3.0                                               | +2.5 | +2.5 | +2.0 | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 10   |                                    |                   | 412079                | 768371                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +3.0                                               | +3.0 | +3.0 | +2.0 | 222                      | 222  |           |                       |                    |                                |     |                                    |
| 11   |                                    |                   | 412079                | 768371                   | -                   | -                           | 10 <sup>-3</sup>   | 10 <sup>-3</sup>   | 96  | 96  | 96  | 96  | +3.0                                               | +3.0 | +3.0 | +2.0 | 222                      | 222  |           |                       |                    |                                |     |                                    |

| BORIC ACID TANK LEVELS |  |           |             | PRESSURIZER TEMPERATURES |                            |       |       |                         |            |           |                     |              |              | CONTROL |                           |       |      |              |       |      |      |      |      |     |
|------------------------|--|-----------|-------------|--------------------------|----------------------------|-------|-------|-------------------------|------------|-----------|---------------------|--------------|--------------|---------|---------------------------|-------|------|--------------|-------|------|------|------|------|-----|
| TIME                   |  | #3-A      | B           | TIME                     | SAFETY LINES               |       |       | POWER RELIEF            | PZR LIQUID | PZR VAPOR | SURGE LINE          | SPRAY LINE B | SPRAY LINE C | TIME    | T AVG                     |       |      | PZR PRESSURE |       |      | ΔT   |      |      |     |
|                        |  |           |             |                          | A                          | B     | C     |                         |            |           |                     |              |              |         | A                         | B     | C    | 444          | 445   | 458  | 411B | 421B | 431B |     |
|                        |  | 106       | 108         |                          | 465                        | 467   | 469   | 463                     | 453        | 454       | 450                 | 452          | 451          |         | 411A                      | 421A  | 431A | 444          | 445   | 458  | 411B | 421B | 431B |     |
| M                      |  | 4600      | 4525        | M                        | 140                        | 131   | 158   | 216                     | 635        | 625       | 605                 | 540          | 550          | M       | 567                       | 567   | 567  | 1890         | 1875  | - .3 | 54   | 56   | 53   |     |
| 4                      |  | 4525      | 4650        | 4                        | 140                        | 131   | 158   | 215                     | 635        | 630       | 590                 | 540          | 550          | 4       | 563                       | 563   | 563  | 1890         | 1875  | - .3 | 46   | 48   | 45   |     |
| 8                      |  | 4525      | 4700        | 8                        | 140                        | 131   | 158   | 215                     | 635        | 630       | 605                 | 540          | 550          | 8       | 567                       | 567   | 567  | 1885         | 1875  | - .3 | 53   | 54   | 52   |     |
| N                      |  | 4580      | 4700        | N                        | 142                        | 131   | 155   | 215                     | 640        | 625       | 605                 | 540          | 550          | N       | 566                       | 566   | 566  | 1895         | 1875  | - .3 | 54   | 55   | 53   |     |
| 4                      |  | 4500      | 4700        | 4                        | 140                        | 130   | 150   | 215                     | 640        | 625       | 605                 | 540          | 550          | 4       | 566                       | 566   | 566  | 1885         | 1870  | - .3 | 54   | 55   | 53   |     |
| 8                      |  | 4500      | 4650        | 8                        | 140                        | 130   | 145   | 215                     | 635        | 625       | 605                 | 540          | 545          | 8       | 566                       | 566   | 566  | 1885         | 1870  | - .3 | 54   | 55   | 53   |     |
| TIME                   |  | VCT LEVEL | CHARGE FLOW | RCS PRESS                | PROTECTION + AVG           |       |       | PROTECTION PZR PRESSURE |            |           | CONT/PROT PZR LEVEL |              |              | TIME    | STEAM GENERATOR PRESSURES |       |      |              |       |      |      |      |      |     |
|                        |  |           |             |                          | A                          | B     | C     |                         |            |           |                     |              |              |         | S/G A                     | S/G B |      |              | S/G C |      |      |      |      |     |
|                        |  | 115       | 122         | 402                      |                            |       |       |                         |            |           |                     |              |              |         | 474                       | 475   | 476  | 484          | 485   | 486  | 494  | 495  | 496  |     |
| M                      |  | 33        | 40          | 1860                     | 421 D                      | 422 D | 423 D | 455                     | 456        | 457       | 459                 | 460          | 461          | M       | 760                       | 760   | 770  | 760          | 775   | 750  | 750  | 750  | 750  |     |
| 1                      |  | 24        | 40          |                          | 567                        | 566   | 566   | 1895                    | 1905       | 1885      | 46                  | 46           | 44           | 1       | 780                       | 780   | 780  | 775          | 800   | 775  | 775  | 775  | 775  |     |
| 2                      |  | 28        | 40          |                          | 563                        | 563   | 563   | 1895                    | 1905       | 1885      | 42                  | 43           | 40           | 2       | 790                       | 790   | 810  | 800          | 810   | 790  | 790  | 790  | 790  |     |
| 3                      |  | 31        | 40          |                          | 567                        | 566   | 566   | 1890                    | 1905       | 1880      | 43                  | 44           | 42           | 3       | 790                       | 790   | 800  | 790          | 810   | 775  | 780  | 790  | 790  |     |
| 4                      |  | 32        | 42          | 1860                     | N                          | 566   | 565   | 565                     | 1900       | 1910      | 1880                | 45           | 46           | 43      | 4                         | 790   | 790  | 800          | 790   | 810  | 775  | 780  | 780  | 780 |
| 5                      |  | 32        | 40          |                          | 566                        | 566   | 566   | 1895                    | 1905       | 1880      | 46                  | 45           | 44           | 5       | 780                       | 780   | 800  | 780          | 810   | 775  | 775  | 780  | 780  |     |
| 6                      |  | 33        | 45          |                          | 566                        | 565   | 565   | 1900                    | 1905       | 1885      | 45                  | 46           | 43           | 6       | 780                       | 775   | 780  | 775          | 800   | 770  | 770  | 770  | 770  |     |
| 7                      |  | 33        | 40          |                          |                            |       |       |                         |            |           |                     |              |              | 7       | 780                       | 775   | 780  | 775          | 800   | 770  | 770  | 770  | 770  |     |
| 8                      |  | 38        | 41          | 1860                     |                            |       |       |                         |            |           |                     |              |              | 8       | 770                       | 770   | 780  | 770          | 780   | 770  | 760  | 760  | 770  |     |
| 9                      |  | 37        | 41          |                          | REACTOR COOLANT LOOP FLOWS |       |       |                         |            |           |                     |              |              | 9       | 760                       | 760   | 770  | 760          | 775   | 750  | 750  | 760  | 770  |     |
|                        |  |           |             |                          | LOOP A                     |       |       | LOOP B                  |            |           | LOOP C              |              |              | 10      | 760                       | 760   | 770  | 760          | 775   | 750  | 750  | 760  | 770  |     |
| 10                     |  | 37        | 40          |                          | 414                        | 415   | 416   | 424                     | 425        | 426       | 434                 | 435          | 436          | 11      | 760                       | 755   | 770  | 760          | 770   | 750  | 750  | 760  | 750  |     |
| 11                     |  | 35        | 41          |                          | M                          | 100   | 97    | 98                      | 98         | 98        | 98                  | 100          | 100          | N       | 840                       | 750   | 765  | 750          | 780   | 750  | 750  | 760  | 750  |     |
| N                      |  | 35        | 45          | 1860                     | 4                          | 100   | 97    | 98                      | 98         | 98        | 99                  | 100          | 99           | 1       | 810                       | 750   | 770  | 750          | 770   | 750  | 750  | 760  | 750  |     |
| 1                      |  | 34        | 40          |                          | 8                          | 100   | 97    | 98                      | 98         | 98        | 99                  | 100          | 100          | 2       | 1060                      | 750   | 770  | 755          | 780   | 750  | 750  | 760  | 750  |     |
| 2                      |  | 31.5      | 40          |                          | N                          | 100   | 98    | 98                      | 98         | 99        | 99                  | 100          | 100          | 3       | 1150                      | 750   | 770  | 750          | 780   | 750  | 750  | 760  | 750  |     |
| 3                      |  | 33        | 40          |                          | 4                          | 100   | 98    | 98                      | 98         | 97        | 99                  | 100          | 100          | 4       | OUT OF SERVICE            | 750   | 770  | 760          | 780   | 760  | 750  | 760  | 750  |     |
| 4                      |  | 32        | 38          | 1860                     | 8                          | 100   | 97    | 98                      | 98         | 98        | 99                  | 100          | 100          | 5       | "                         | 750   | 770  | 760          | 780   | 760  | 750  | 760  | 750  |     |

FIGURE 5.2-2 NCCO Log Sheet Sample

FIGURE 5.2-2 NCCO Log Sheet Sample

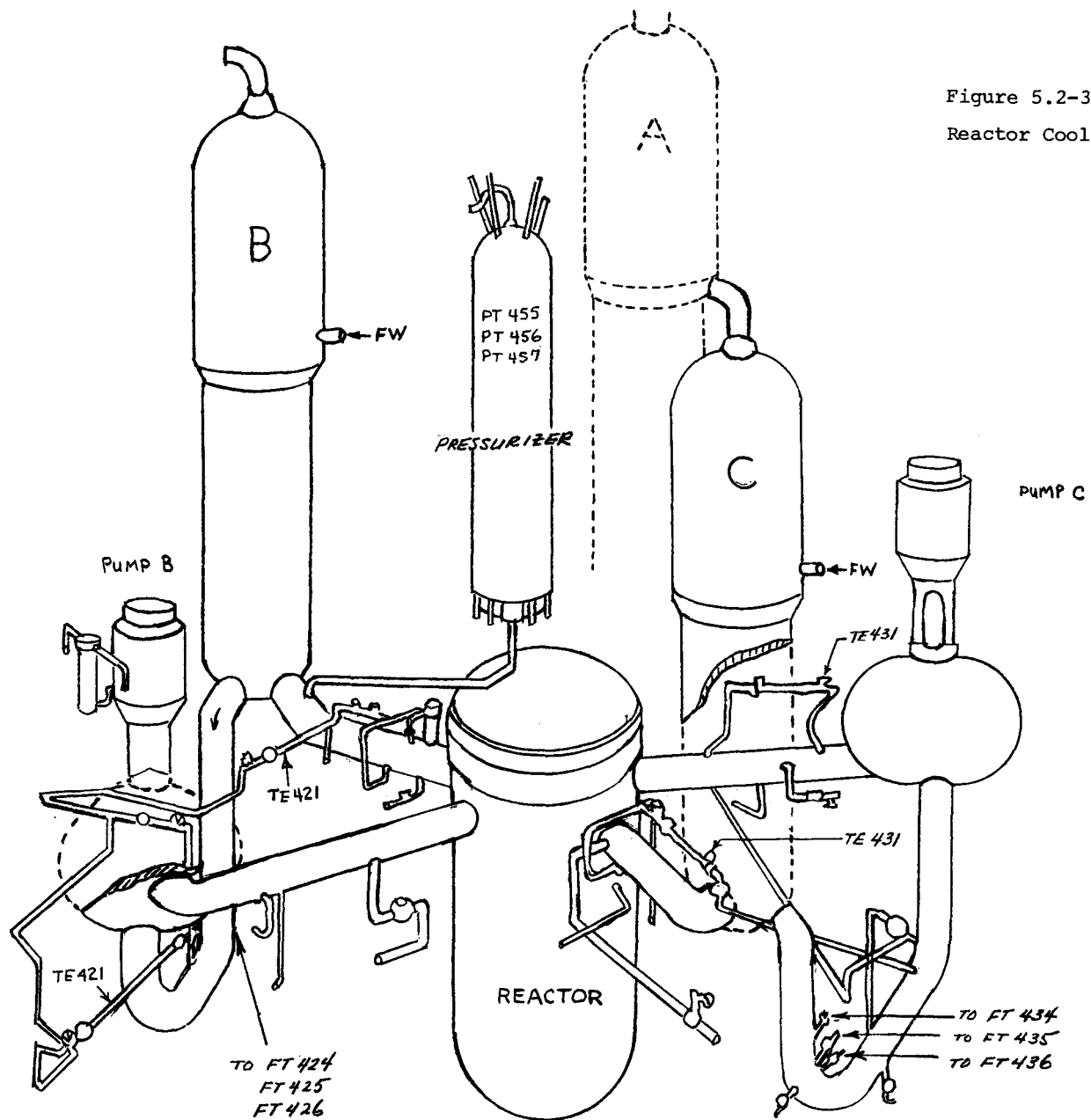


Figure 5.2-3  
Reactor Coolant System

Figured 5.2-3 Continued

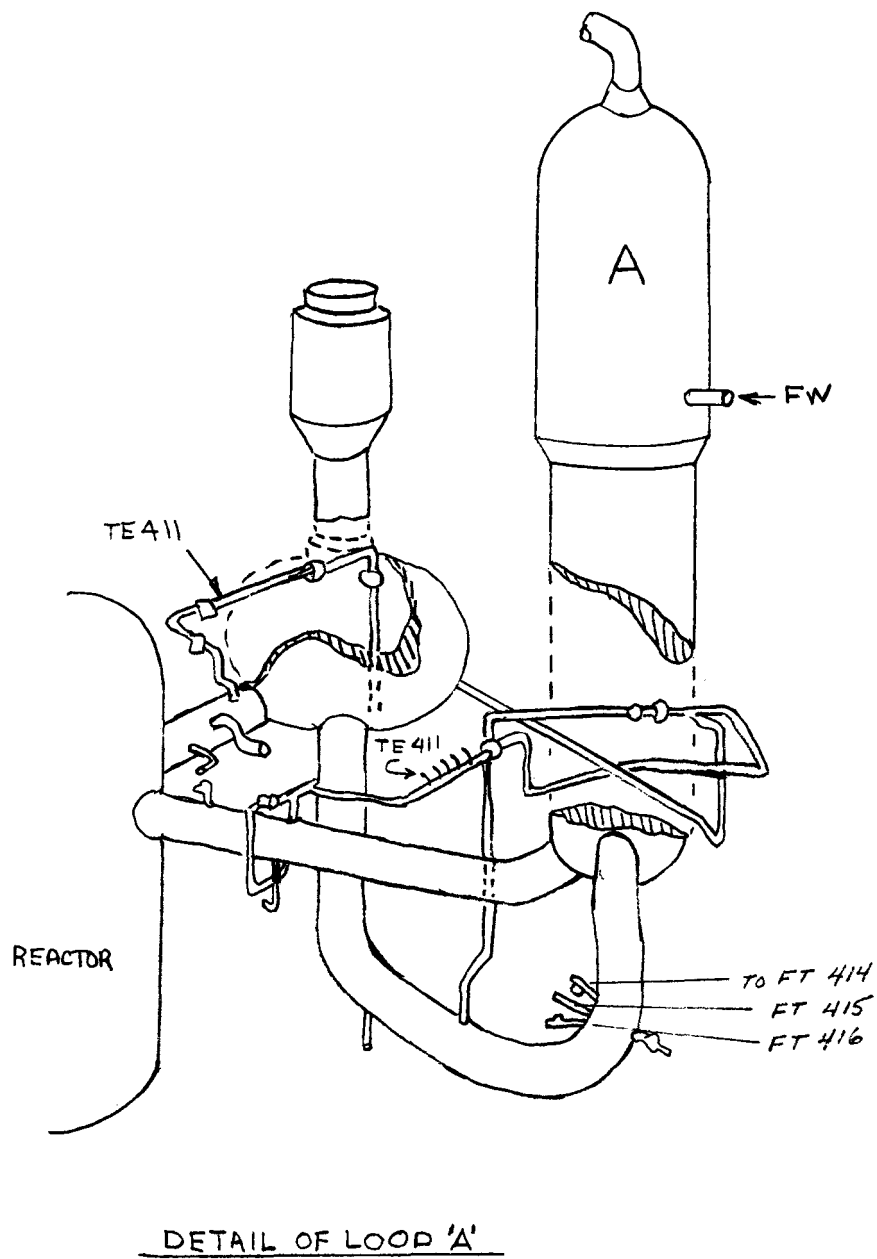
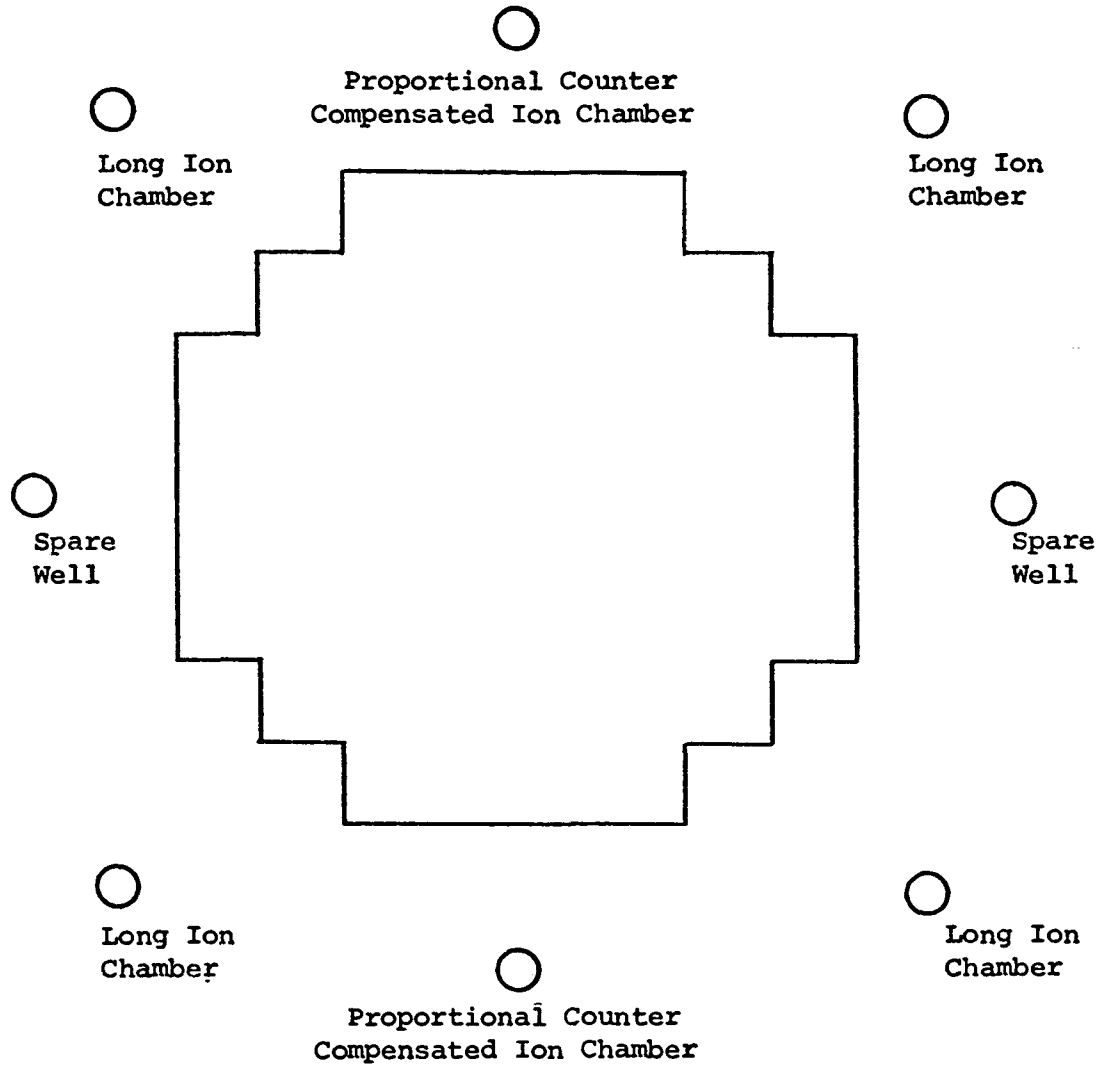


FIGURE 5.2-4

EX-CORE DETECTOR LOCATIONS



## PWR CYCLE 1 DATA

### Contents

#### Tables

|             |                                                     |
|-------------|-----------------------------------------------------|
| 2.1         | PWR Reference Design Parameters at Rated Conditions |
| 2.2         | PWR Core and Component Description                  |
| 2.3         | PWR Average Assembly Fuel Loading                   |
| 2.4, Part A | PWR History                                         |
| 2.4, Part B | Statepoint                                          |
| 2.4, Part C | PWR Hot-Zero-Power Data                             |
| 2.4, Part D | PWR Transient Data                                  |

#### Diagrams

|        |                                                   |
|--------|---------------------------------------------------|
| 2.2-1  | Fuel Assembly Type Locations                      |
| 2.2-2  | Pattern of Control Rod Banks                      |
| 2.2-3  | In-Core Detector Locations                        |
| 2.2-4  | Thermocouple Locations                            |
| 2.2-5  | Core Layout, Reactor Core Cross Section           |
| 2.2-6  | Core Layout, Reactor Vessel Internals             |
| 2.2-6A | Lower Core Support Assembly                       |
| 2.2-6B | Upper Core Support Assembly                       |
| 2.2-7  | Location of Primary and Secondary Sources         |
| 2.2-8  | Assembly Layout                                   |
| 2.2-8A | Assembly-wise Burnable Poison Rod Locations       |
| 2.2-9  | Spacer Grid Location                              |
| 2.2-10 | Burnable Poison Rod                               |
| 2.4-1  | Boron Letdown Curve and Histogram, Cycle 1        |
| 2.4-2  | Incore Power Distribution, Cycle 1, 350 MWD/MTU   |
| 2.4-3  | Incore Power Distribution, Cycle 1, 3000 MWD/MTU  |
| 2.4-4  | Incore Power Distribution, Cycle 1, 6600 MWD/MTU  |
| 2.4-5  | Incore Power Distribution, Cycle 1, 9000 MWD/MTU  |
| 2.4-6  | Incore Power Distribution, Cycle 1, 12800 MWD/MTU |

REACTOR: TURKEY POINT #3

CYCLE: 1

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS  
AT RATED CONDITIONSSheet 1 of 3Rev. 0 Date: 4/16/76

| ITEM (Unit)                                      | VALUE          | SOURCE             | COMMENTS                                            |
|--------------------------------------------------|----------------|--------------------|-----------------------------------------------------|
| 1. full power (Mwt)                              | 2200.          | FSAR Table 1.4-1   | none                                                |
| 2. power density (KW/l)                          | 83.3           | idem               | Calculated from data in Table 1.4-1                 |
| 3. linear power (watts/cm)                       | 182.           | idem               | idem                                                |
| 4. system pressure MOC1-EOC1<br>(psia) BOC1-MOC1 | 1900.<br>2250. | idem               | 2250 was design value changed to 1900 in mid cycle. |
| 5. total core flow<br>( $10^6$ lbs/hr)           | 101.5          | idem               | none                                                |
| 6. active core flow<br>( $10^6$ lbs/hr)          | 97.0           | idem               | $4.5 \times 10^6$ lbs/hr is bypass flow             |
| 7. core flow area (ft <sup>2</sup> )             | 41.8           | idem               | none                                                |
| 8. core $\Delta P$ @ 100% flow (psi)             | 26.            | FSAR Table 3.2.2-1 | none                                                |
| 9. spacer single phase<br>loss coefficient       | not available  | Vendor Proprietary | none                                                |
| 10. core inlet temperature, °F                   | 546.2          | FSAR Table 1.4-1   | design value = 546.2<br>operating value = 539.      |
| Verified By: <u>AK9</u> Date: <u>5/26/76</u>     |                |                    |                                                     |

REACTOR: Turkey Point #3  
CYCLE: 1

TABLE 2.1  
PWR REFERENCE DESIGN PARAMETERS  
AT RATED CONDITIONS

Sheet 2 of 3

Rev. 0 Date: 4/16/76

| ITEM (Unit)                                      | VALUE   | SOURCE             | COMMENTS                                                                             |
|--------------------------------------------------|---------|--------------------|--------------------------------------------------------------------------------------|
| 11. core average temperature<br>(°F)             | 575.4   | FSAR Table 1.4-1   | 575.4 design value<br>566. operating value                                           |
| 12. average fuel temperature<br>(°F)             | 1200.   | NAI                | Nominal Temperatures to be used<br>in EPRI-CELL in lieu of<br>EPRI-THERM calculation |
| 13. average clad temperature<br>(°F)             | 620.    | NAI                |                                                                                      |
| 14. fraction of power produced<br>in fuel        | .974    | FSAR Table 1.4-1   | none                                                                                 |
| 15. engineering factor,<br>hot channel enthalpy  | 1.01    | FSAR Table 3.2.2-2 | none                                                                                 |
| 16. engineering factor,<br>hot channel heat flux | 1.03    | FSAR Table 3.2.2-2 | none                                                                                 |
| 17. cycle exposure (MWD/MTU)                     | 13,000. | FSAR Table 3.2.1-1 | none                                                                                 |
| 18. initial core loading (MTU)                   | 70.4    | FSAR Table 1.4-1   | Calculated from data in FSAR<br>Table 1.4-1                                          |
| 19. fuel enrichment (w/o U-235)                  |         |                    |                                                                                      |
| region 1                                         | 1.85    | FSAR Table 3.2.3-1 | none                                                                                 |

Verified By: BJT Date: 5/24/76

REACTOR: Turkey Point #3

CYCLE: 1

TABLE 2.1  
PWR REFERENCE DESIGN PARAMETERS  
AT RATED CONDITIONS

Sheet 3 of 3

Rev. 0 Date: 4/16/76

| ITEM (Unit)                                                                                                    | VALUE | SOURCE             | COMMENTS |
|----------------------------------------------------------------------------------------------------------------|-------|--------------------|----------|
| region 2                                                                                                       | 2.55  | FSAR Table 3.2.3-1 | none     |
| region 3                                                                                                       | 3.10  | idem               | none     |
| Note: The above enrichments are design values.<br>As-built enrichments are used in Diagram 2.2-1 and Table 2.3 |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |
|                                                                                                                |       |                    |          |

Verified By: A29 Date: 4/27/78

REACTOR: Turkey Point 3

CYCLE:

1

TABLE 2.2

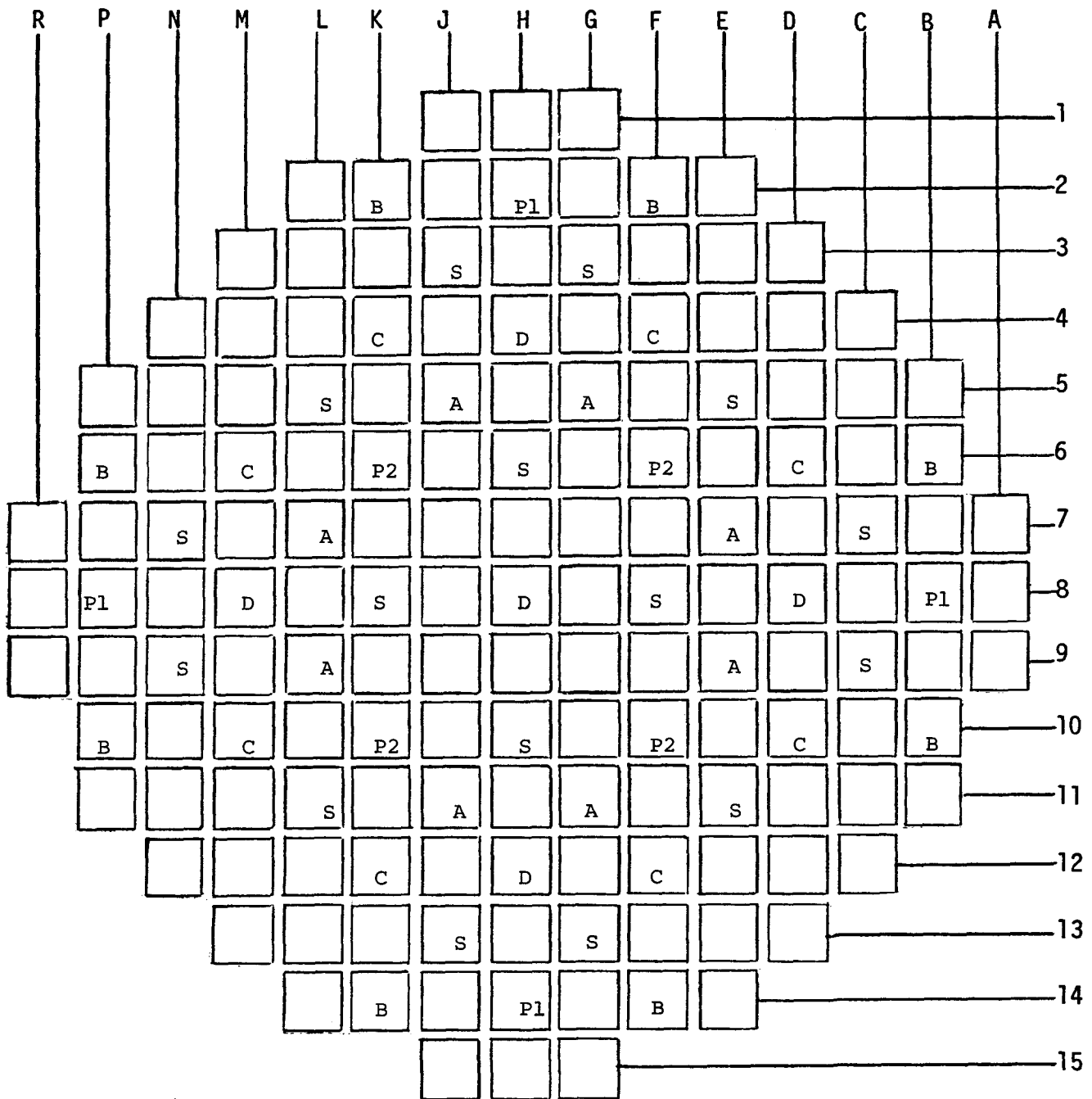
PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2Rev. 0 Date: 4/26/76

| ITEM (Unit)                                       | VALUE                                           | SOURCE                                                                                      | COMMENTS                             |
|---------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------|
| 1.8 Location of control elements                  | See diagram                                     | FSAR Figure 3.2.1-1                                                                         | Diagram # 2.2-2 attached             |
| 1.9 Total number of incore flux monitors          | 50                                              | FP&L Summary Report of Turkey Point Units Nuclear Power Plant Start-up Physics Measurements | none                                 |
| 1.10 Location of incore flux monitor              | See diagram                                     | idem                                                                                        | Diagram # 2.2-3 attached             |
| 1.11 Core structure material-composition and type | SS-304 core baffle, core barrel, thermal shield | FSAR P 3.2.3-4                                                                              | none                                 |
| 1.12 Core Structure thickness (in)                | barrel=2.0<br>thermal shield = 2.6875           | FSAR Table 3.2.3-1                                                                          | none                                 |
| 1.13 Total number of incore thermo-couples        | 51                                              | FP&L Summary Report of Turkey Point Units Nuclear Power Plant Start-up Physics Measurements | Diagram # 2.2-4 attached             |
| 1.14 Core layout                                  | See diagrams                                    | FSAR Figures 3.2.3-1,2                                                                      | Diagram # 2.2-5 and # 2.2-6 attached |
| 1.15 Location of primary and secondary sources    | See diagram                                     | FSAR Figure 3.2.3-3                                                                         | Diagram # 2.2-7 attached             |
| Verified By: <u>929</u> Date: <u>5/26/76</u>      |                                                 |                                                                                             |                                      |

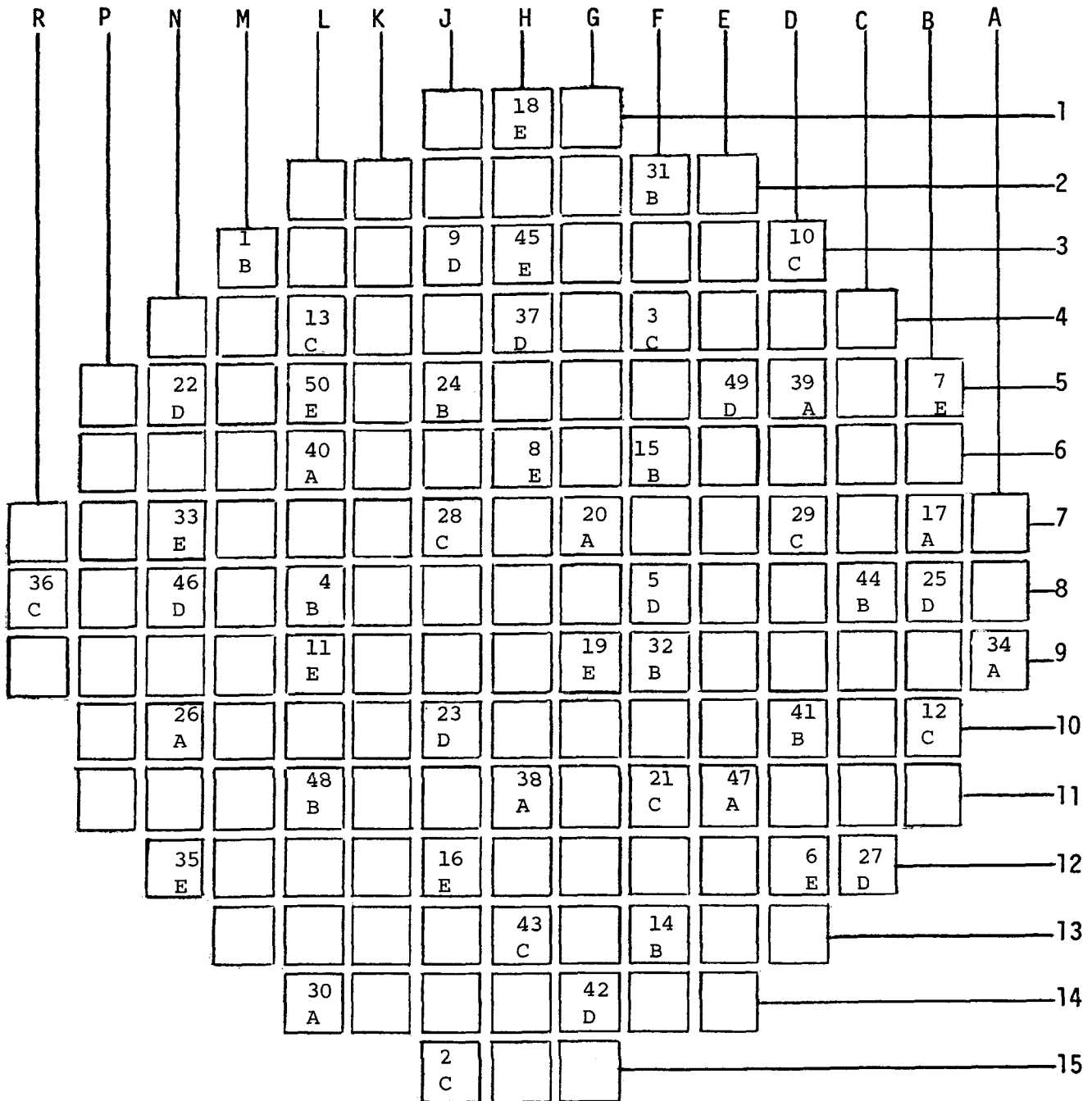
Diagram 2.2-2

PATTERN OF CONTROL ROD BANKS



| Control Rod<br>Cluster Banks | No. of Clusters<br>Per Bank |
|------------------------------|-----------------------------|
| Control Bank A               | 8                           |
| Control Bank B               | 8                           |
| Control Bank C               | 8                           |
| Control Bank D               | 5                           |
| Shutdown Bank A&B(S)         | 16                          |
| Part-Length (P1)             | 4                           |
| Part Length (P2)             | 4                           |
|                              | 53                          |

Diagram 2.2-3  
 INCORE DETECTOR LOCATIONS  
 Turkey Point Unit 3



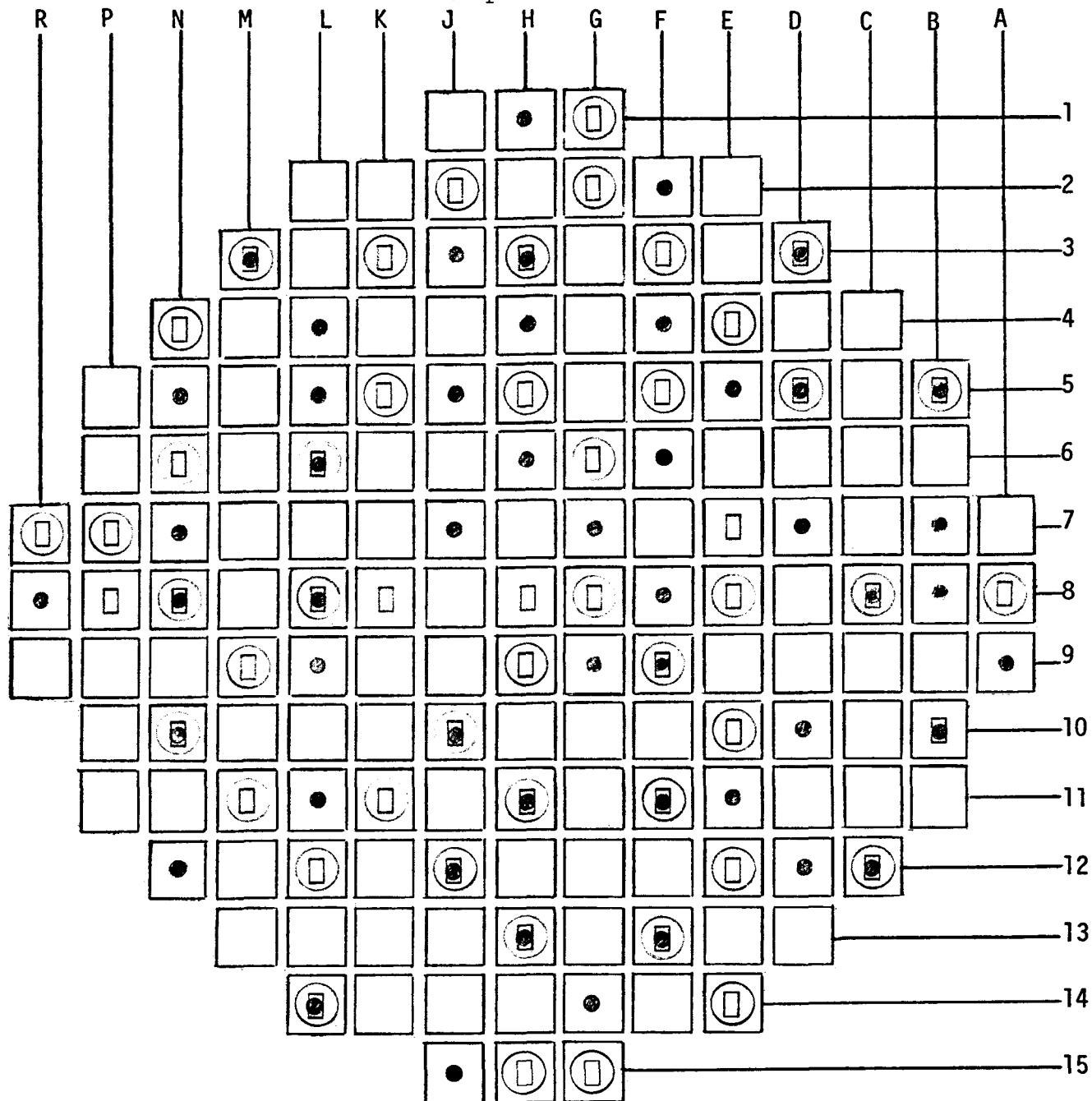
LEGEND

Thimble 

Detector 

Diagram 2.2-4

Thermocouple Locations



Thermocouple (51)



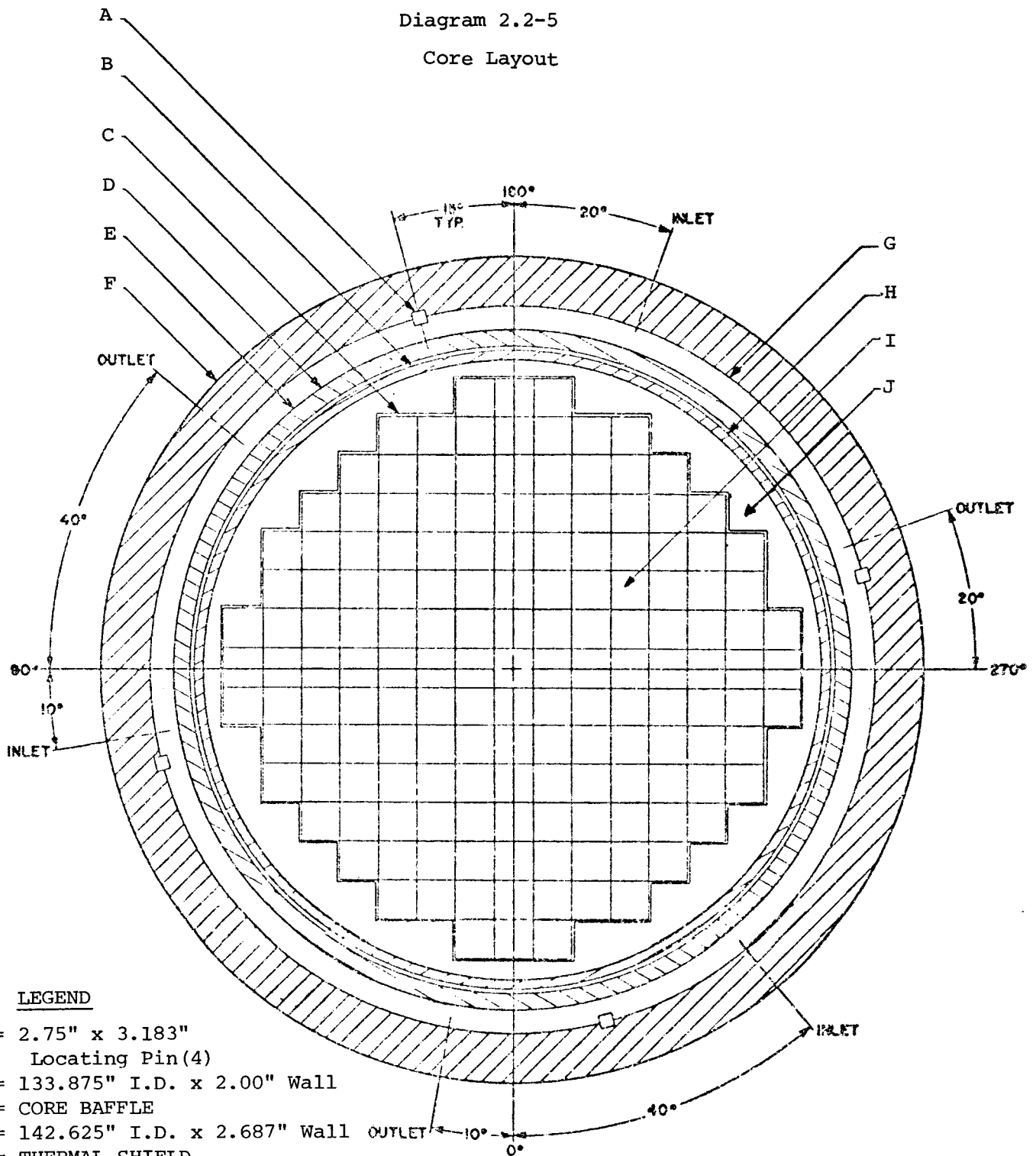
Flow Mixing Device (46)



Incore Movable Detectors (50)

Diagram 2.2-5

Core Layout

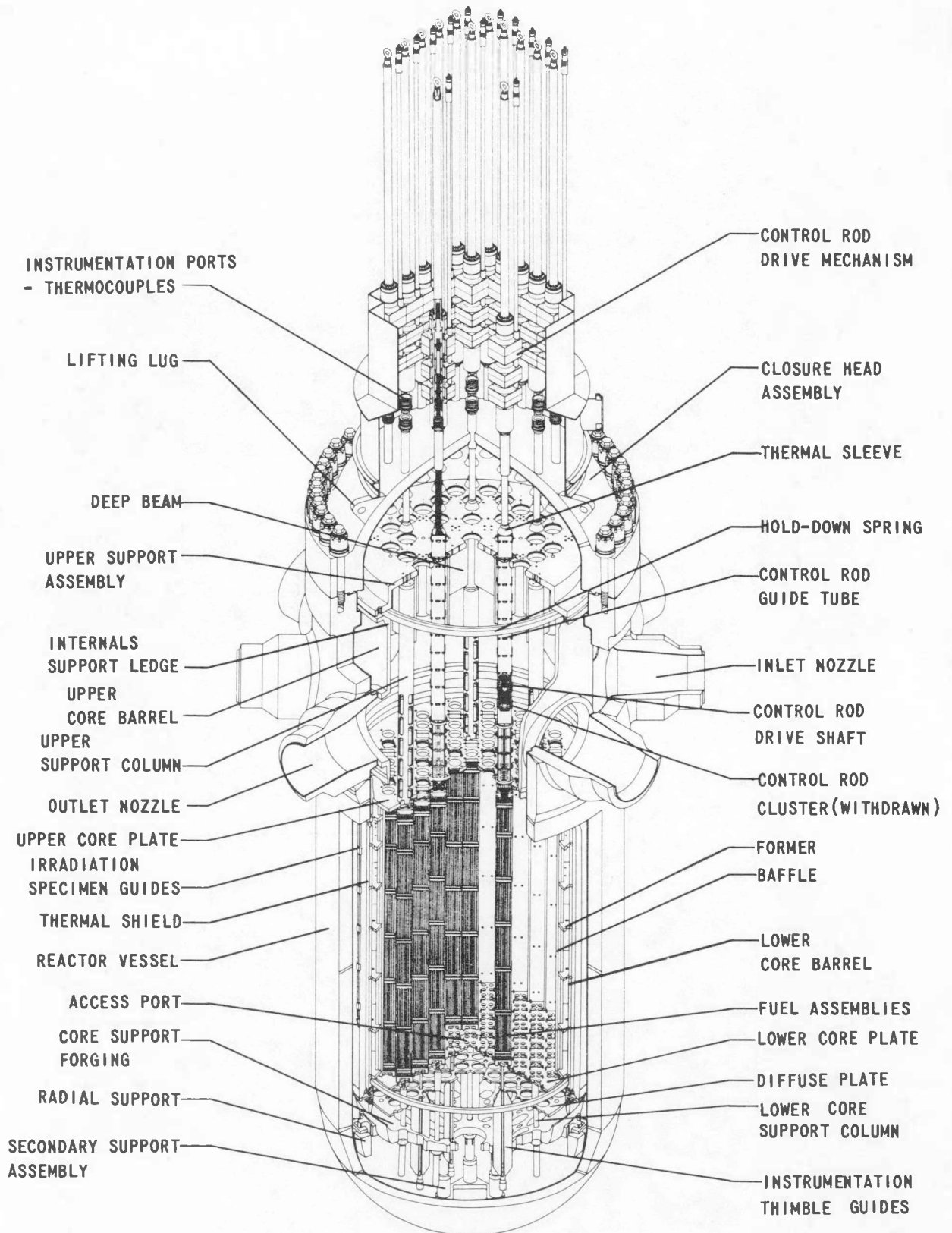


LEGEND

- A = 2.75" x 3.183"  
Locating Pin(4)
- B = 133.875" I.D. x 2.00" Wall
- C = CORE BAFFLE
- D = 142.625" I.D. x 2.687" Wall
- E = THERMAL SHIELD
- F = REACTOR VESSEL
- G = 155.50" I.D. VESSEL
- H = CORE BARREL
- I = FUEL ASSEMBLY
- J = Intra baffle-barrel area  
occupied by water at system  
pressure and temperature

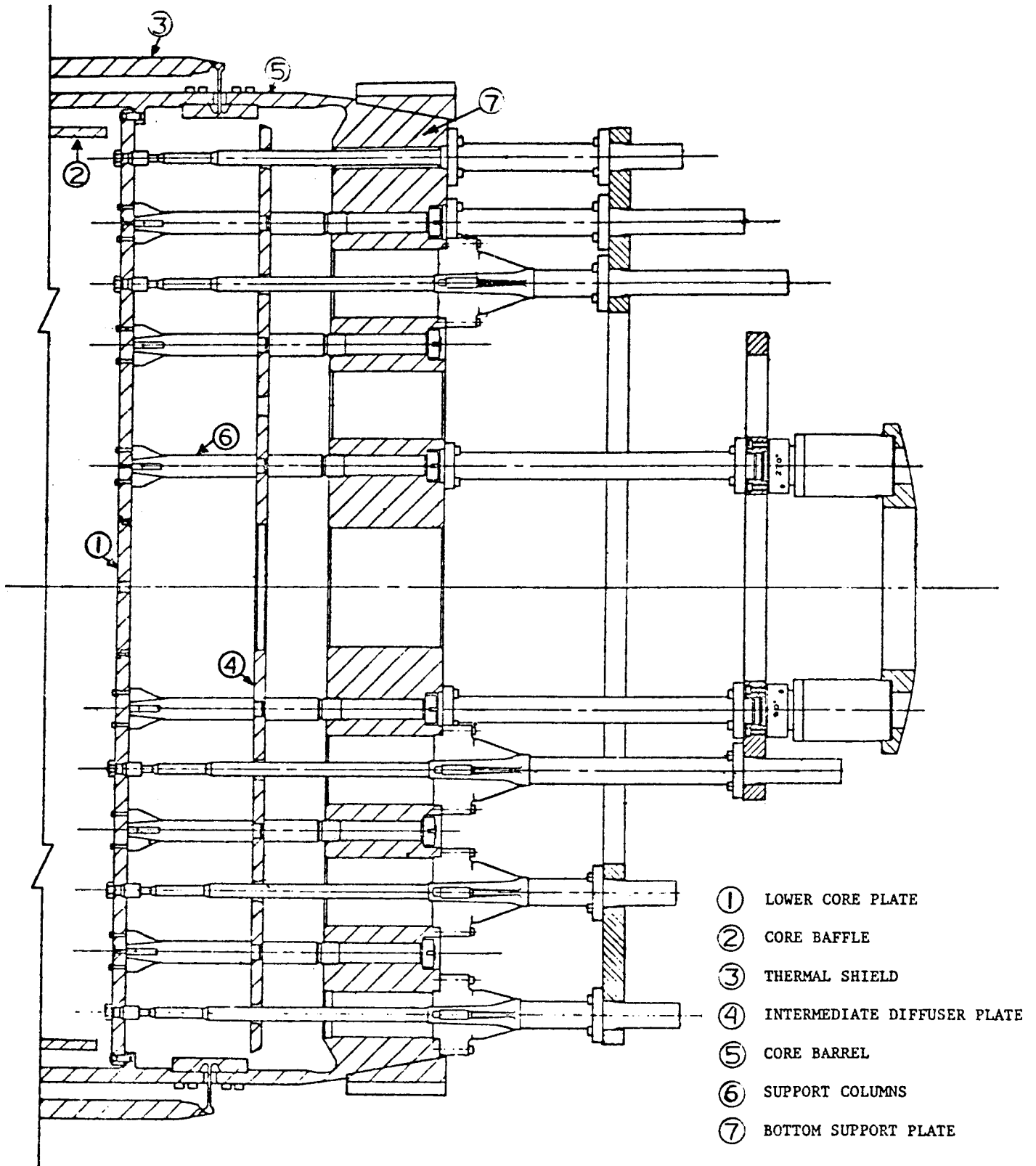
REACTOR CORE CROSS SECTION

Diagram 2.2-6



Core Layout, Reactor Vessel Internals

Diagram 2.2-6a



LOWER CORE SUPPORT ASSEMBLY

Diagram 2.2-6b

UPPER CORE SUPPORT ASSEMBLY

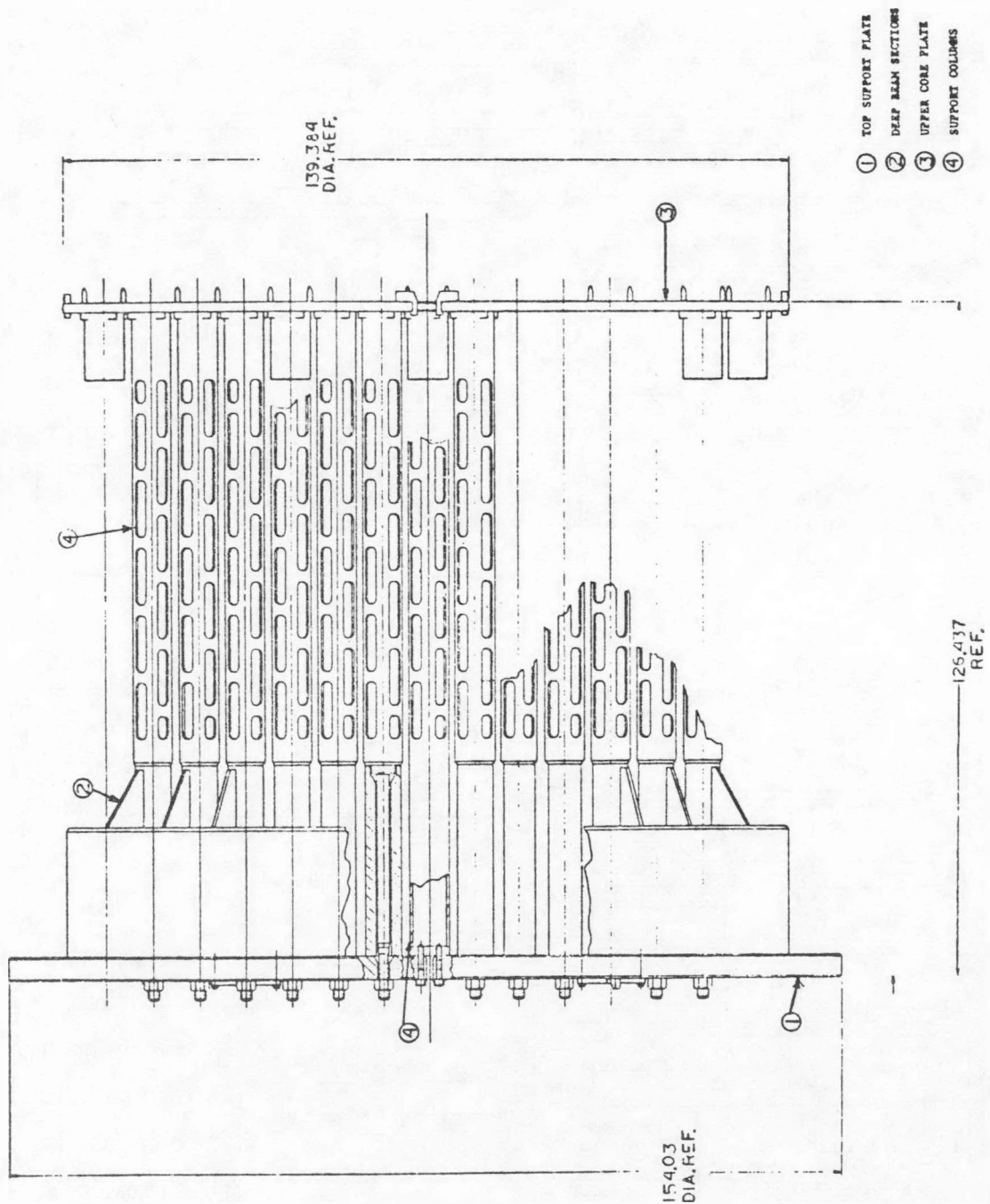
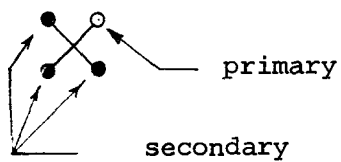
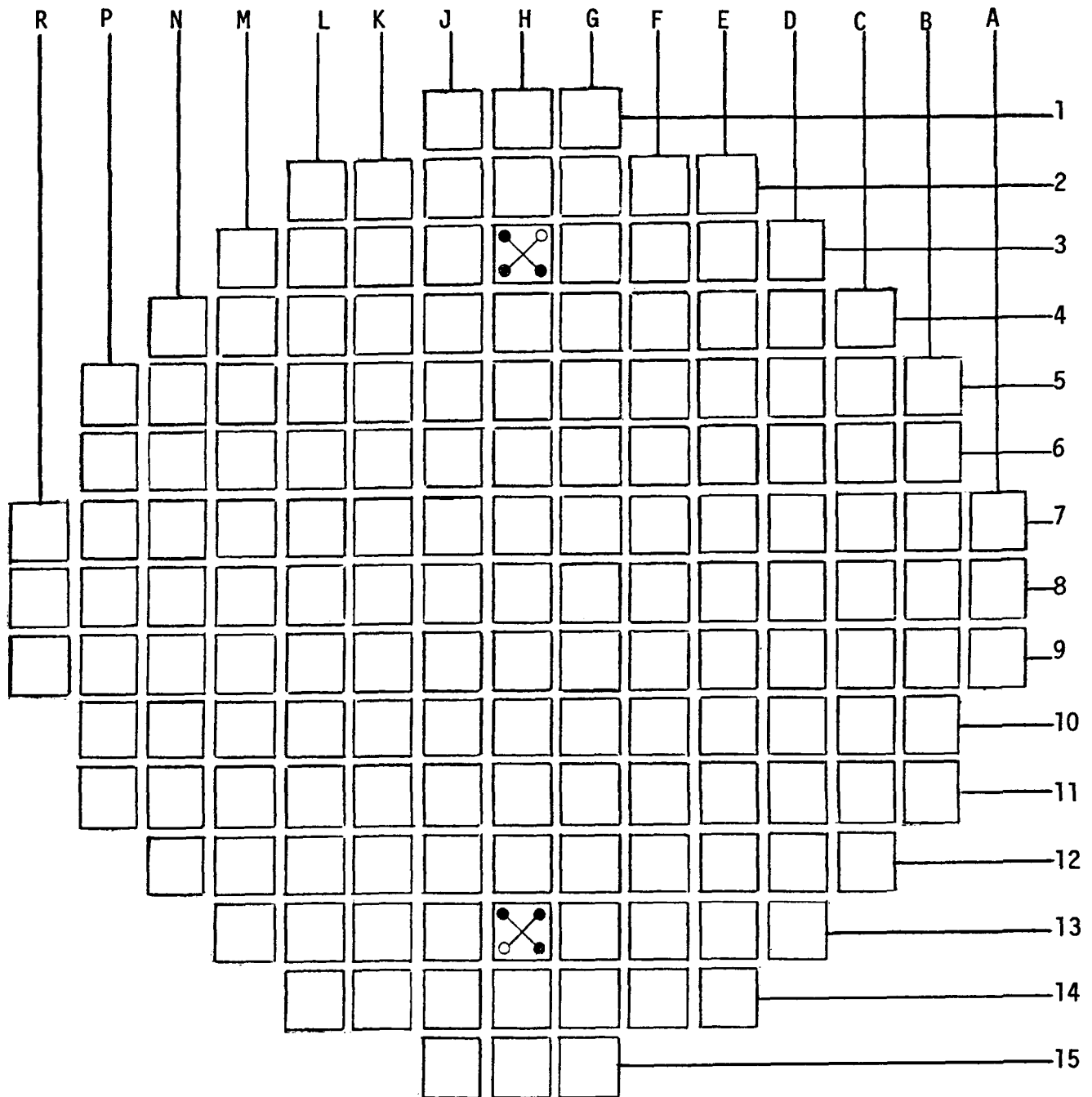


Diagram 2.2-7

Location of Primary and Secondary Sources



Primary/Secondary  
Source Assembly

REACTOR: Turkey Point 3  
CYCLE: 1

TABLE 2.2  
PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 2

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                         | VALUE                                   | SOURCE             | COMMENTS                                                                                                                    |
|-----------------------------------------------------|-----------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 2.0 <u>Control Rod - Pin Cluster</u><br><u>Type</u> |                                         |                    |                                                                                                                             |
| 2.1 Guide tube Material                             | Zircaloy-4                              | FSAR P 3.2.3-14    | none                                                                                                                        |
| 2.2 Guide Tube density<br>(g/cc)                    | 6.56                                    | NAI 70-52          | Light Water Reactor Fuel Assembly<br>Materials Data Manual                                                                  |
| 2.3 Guide Tube O.D. (in)                            | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8  | Approximately 3/4 of the length<br>of the tube is the larger diameter<br>with the bottom 1/4 being the<br>smaller diameter. |
| 2.4 Guide Tube I.D. (in)                            | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 |                                                                                                                             |
| 2.5 Absorber clad material                          | SS-304                                  | FSAR Table 1.4-1   | none                                                                                                                        |
| 2.6 Absorber clad density<br>(g/cc)                 | 7.91                                    | NAI 70-52          | none                                                                                                                        |
| 2.7 Absorber clad thickness<br>(in)                 | .019                                    | FSAR Table 3.2.3-1 | none                                                                                                                        |

Verified By: ATG Date: 5/24/76

REACTOR: Turkey Point 3  
CYCLE: 1

TABLE 2.2  
PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                                           | VALUE                               | SOURCE                   | COMMENTS                                                                                                                                                                                  |
|-----------------------------------------------------------------------|-------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.8 Absorber length (in)                                              | 142. full length<br>36. part length | FSAR Table 3.2.3-1       | The part length control rods contain the absorber material in the bottom 36" and can be moved from full out to a full in position. (See note below pertaining to Tech Spec requirements.) |
| 2.9 Absorber O.D. (in)                                                | .432                                | FSAR P 3.2.3-20          |                                                                                                                                                                                           |
| 2.10 Absorber composition                                             | 5% Cd<br>15% In<br>80% Ag           | FSAR Table 3.2.3-1       |                                                                                                                                                                                           |
| 2.11 Follower Material<br>(portion above part<br>length rod absorber) | Al <sub>2</sub> O <sub>3</sub>      | FSAR P 3.2.3-18          | none                                                                                                                                                                                      |
| 2.12 Follower density (g/cc)                                          | 3.9                                 | Chem. Engrs.<br>Handbook | none                                                                                                                                                                                      |
| 2.13 Follower O.D. (in)                                               | Not required                        | not applicable           | Part length rods are prohibited                                                                                                                                                           |
| 2.14 Follower I.D. (in)                                               | Not required                        | not applicable           | from being inserted into core<br>except for low power physics                                                                                                                             |
| 2.15 Follower length (in)                                             | Not required                        | not applicable           | test per FSAR Tech Spec page<br>3.2.1.E.                                                                                                                                                  |

Verified By: RFJ Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 1

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 2Rev. 0 Date: 4/27/76

| ITEM (Unit)                                  | VALUE                                   | SOURCE                       | COMMENTS                                  |
|----------------------------------------------|-----------------------------------------|------------------------------|-------------------------------------------|
| 3.0 <u>Instrument Cell</u>                   |                                         |                              |                                           |
| 3.1 Instrument tube material                 | Zircaloy-4                              | FSAR P 3.2.3-10,<br>3.2.3-14 | none                                      |
| 3.2 Instrument tube density<br>(g/cc)        | 6.56                                    | NAI 70-52                    | none                                      |
| 3.3 Instrument tube O.D.<br>(in)             | above dash pot .546<br>at dash pot .488 | FSAR Fig.3.2.3-8             | Calculated from data in<br>Figure 3.2.3-8 |
| 3.4 Instrument tube I.D.<br>(in)             | above dash pot .512<br>at dash pot .455 | FSAR Fig. 3.2.3-8            | none                                      |
| 3.5 Spacer sleeve material                   | Not available                           | not applicable               | none                                      |
| 3.6 Spacer sleeve density<br>(g/cc)          | Not available                           | not applicable               | none                                      |
| 3.7 Spacer sleeve length<br>(in)             | Not available                           | not applicable               | none                                      |
|                                              |                                         |                              |                                           |
| Verified By: <u>AKL</u> Date: <u>5/24/76</u> |                                         |                              |                                           |

REACTOR: Turkey Point 3

CYCLE: 1

TABLE 2.2  
PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                         | VALUE           | SOURCE         | COMMENTS |
|-----------------------------------------------------|-----------------|----------------|----------|
| 3.8 Spacer sleeve O.D. (in)                         | Not available   | not applicable | none     |
| 3.9 Spacer sleeve I.D. (in)                         | Not available   | not applicable | none     |
| 3.10 Instrument pin clad<br>O.D. (in)               | Not applicable  | not applicable | none     |
| 3.11 Instrument pin clad<br>I.D. (in)               | Not applicable  | not applicable | none     |
| 3.12 Detector types                                 | fission chamber | FSAR p 7.6-2   | none     |
| 3.13 Thermocouple type                              | Chromel-Alumel  | idem           | none     |
| 3.14 Background detector<br>type                    | None            | none           | none     |
|                                                     |                 |                |          |
| <p>Verified By: <u>ATZ</u> Date: <u>5/20/76</u></p> |                 |                |          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 4

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/28/76

FUEL ASSEMBLY TYPE: 1, 3 and 11

| ITEM (Unit)                                                  | VALUE         | SOURCE             | COMMENTS                 |
|--------------------------------------------------------------|---------------|--------------------|--------------------------|
| 4.0 <u>Fuel Assembly (for each fuel assembly type)</u>       |               |                    | .                        |
| 4.1 Assembly layout                                          | See diagram   | FSAR Fig. 3.2.3-8  | Diagram # 2.2-8 attached |
| 4.2 Assembly pitch (in)                                      | 8.466         | idem               | none                     |
| 4.3 Assembly geometry                                        | 15 X 15 array | FSAR Table 3.2.3-1 | none                     |
| 4.4 Fuel pin pitch (in)                                      | .563          | idem               | none                     |
| 4.5 Fuel pins per assembly                                   | 204           | idem               | none                     |
| 4.6 Fuel pin length (in)                                     | 152.060       | idem               | none                     |
| 4.7 Instrument pins per assembly<br>(Instrumentation Sheath) | 1             | FSAR Fig. 3.2.3-8  | none                     |

Verified By: AZ Date: 5/26/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 2 of 4

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/28/76FUEL ASSEMBLY TYPE: 1,3 and 11

| ITEM (Unit)                                     | VALUE          | SOURCE                               | COMMENTS                 |
|-------------------------------------------------|----------------|--------------------------------------|--------------------------|
| 4.8 Water holes (or inert pins)<br>per assembly | 0              | Fig. 3.2.3-8                         | none                     |
| 4.9 Burnable poison positions<br>per assembly   | 12             | FSAR Figs. 3.2.1-7,8<br>Fig. 3.2.3-3 | none                     |
| 4.10 Control positions per<br>assembly          | 20             | FSAR Table 3.2.3-1                   | none                     |
| 4.11 Spacer grids per assembly<br>and location  | 7              | FSAR Fig. 3.2.3-9                    | Diagram # 2.2-9 attached |
| 4.12 Spacer grid material                       | Inconel<br>718 | FSAR P 3.2.3-15                      | none                     |
| 4.13 Mass per grid (g)                          | Not available  | not applicable                       | none                     |
| 4.14 Spacer grid thickness (in)                 | Not available  | not applicable                       | none                     |
| 4.15 Spacer grid height (in)                    | Not available  | not applicable                       | none                     |

Verified By: ASD Date: 5/20/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 3 of 4

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

FUEL ASSEMBLY TYPE: 2 and 4

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                               | VALUE         | SOURCE             | COMMENTS                 |
|-----------------------------------------------------------|---------------|--------------------|--------------------------|
| 4.0 <u>Fuel Assembly (for each assembly type)</u>         |               |                    |                          |
| 4.1 Assembly layout                                       | See diagram   | FSAR Fig. 3.2.3-8  | Diagram # 2.2-8 attached |
| 4.2 Assembly pitch (in)                                   | 8.466         | idem               | none                     |
| 4.3 Assembly geometry                                     | 15 X 15 array | FSAR Table 3.2.3-1 | none                     |
| 4.4 Fuel pin pitch (in)                                   | .563          | idem               | none                     |
| 4.5 Fuel pins per assembly                                | 204           | idem               | none                     |
| 4.6 Fuel pin length (in)                                  | 152.060       | idem               | none                     |
| 4.7 Instrument pins per assembly (Instrumentation Sheath) | 1             | FSAR Fig. 3.2.3-8  | none                     |
|                                                           |               |                    |                          |
| <p>Verified By: <u>AZG</u> Date: <u>5/26/76</u></p>       |               |                    |                          |

REACTOR: Turkey Point 3

CYCLE: 1

FUEL ASSEMBLY TYPE: 2 and 4

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 4 of 4

Rev. 1 Date: 4/5/77

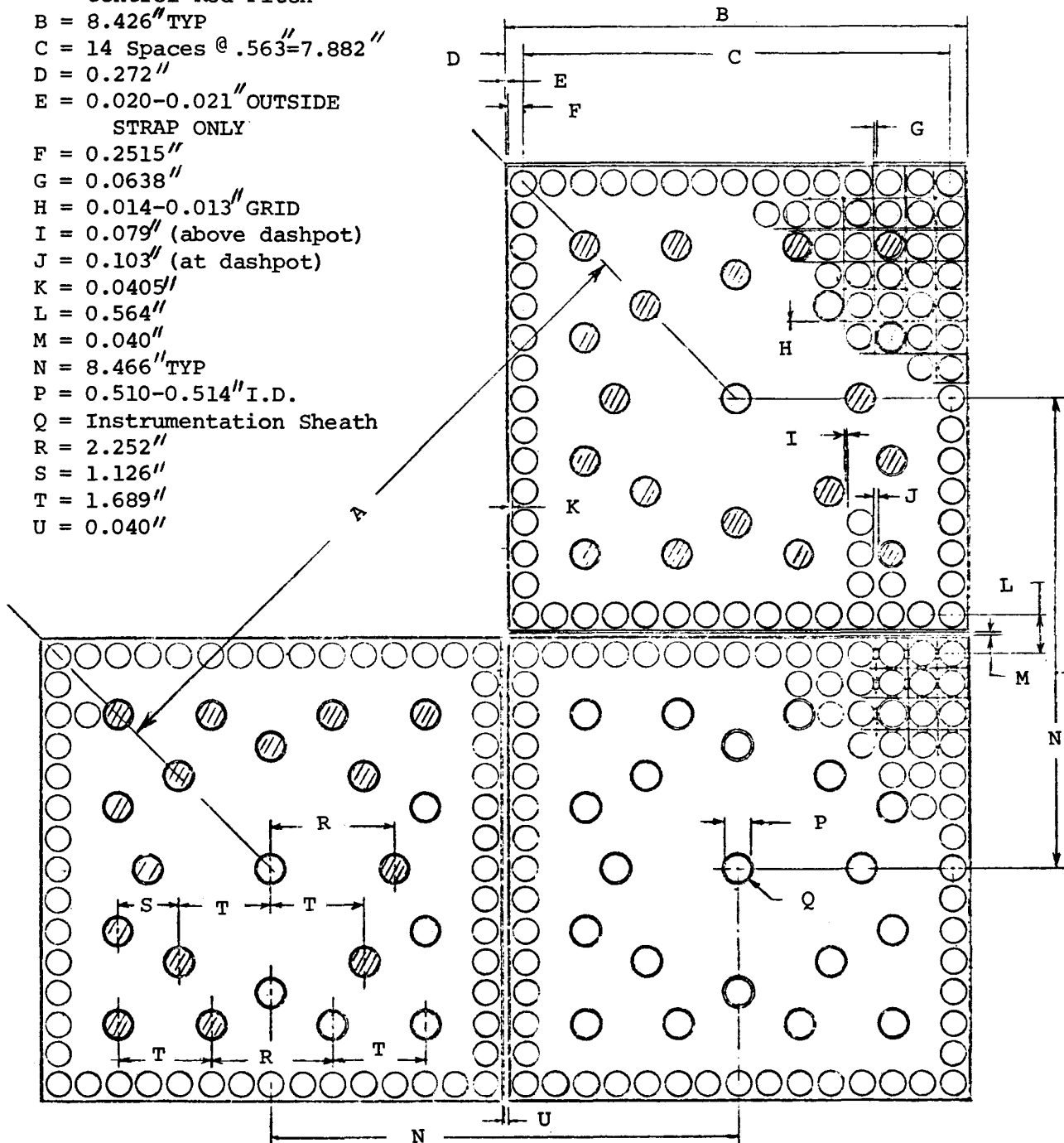
| ITEM (Unit)                                  | VALUE         | SOURCE                                 | COMMENTS                                           |
|----------------------------------------------|---------------|----------------------------------------|----------------------------------------------------|
| 4.8 Water holes (or inert pins per assembly) | 0             | FSAR Fig. 3.2.3-8                      | none                                               |
| 4.9 Burnable poison positions per assembly   | 12            | FSAR Figures 3.2.1-7,8<br>Fig. 3.2.3-3 | See diagram 2.2-8A<br>diagram 2.2-8A added 2/22/77 |
| 4.10 Control positions per assembly          | 20            | FSAR Table 3.2.3-1                     | none                                               |
| 4.11 Spacer grids per assembly and location  | 7             | FSAR Fig. 3.2.3-9                      | Diagram # 2.2-9 attached                           |
| 4.12 Spacer grid material                    | Inconel 718   | FSAR p 3.2.3-15                        | none                                               |
| 4.13 Mass per grid (g)                       | Not available | not applicable                         | none                                               |
| 4.14 Spacer grid thickness (in)              | Not available | not applicable                         | none                                               |
| 4.15 Spacer Grid height (in)                 | Not available | not applicable                         | none                                               |
|                                              |               |                                        |                                                    |
|                                              |               |                                        |                                                    |
| Verified By: <u>BJR</u> Date: <u>5/26/76</u> |               |                                        |                                                    |

Diagram 2.2-8

Assembly Layout

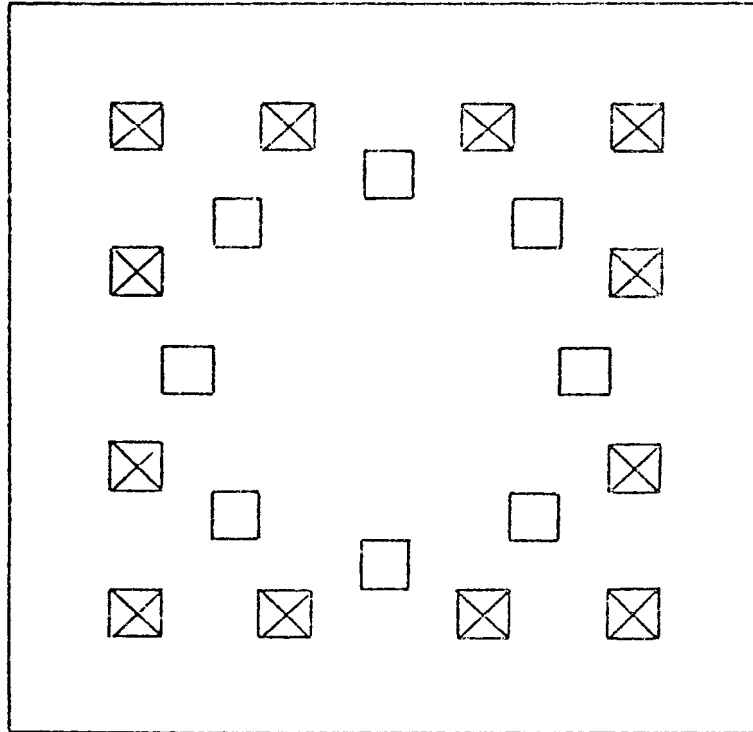
LEGEND

- A = 11.973" Fuel Ass'y and  
Control Rod Pitch
- B = 8.426" TYP
- C = 14 Spaces @ .563" = 7.882"
- D = 0.272"
- E = 0.020-0.021" OUTSIDE  
STRAP ONLY
- F = 0.2515"
- G = 0.0638"
- H = 0.014-0.013" GRID
- I = 0.079" (above dashpot)
- J = 0.103" (at dashpot)
- K = 0.0405"
- L = 0.564"
- M = 0.040"
- N = 8.466" TYP
- P = 0.510-0.514" I.D.
- Q = Instrumentation Sheath
- R = 2.252"
- S = 1.126"
- T = 1.689"
- U = 0.040"



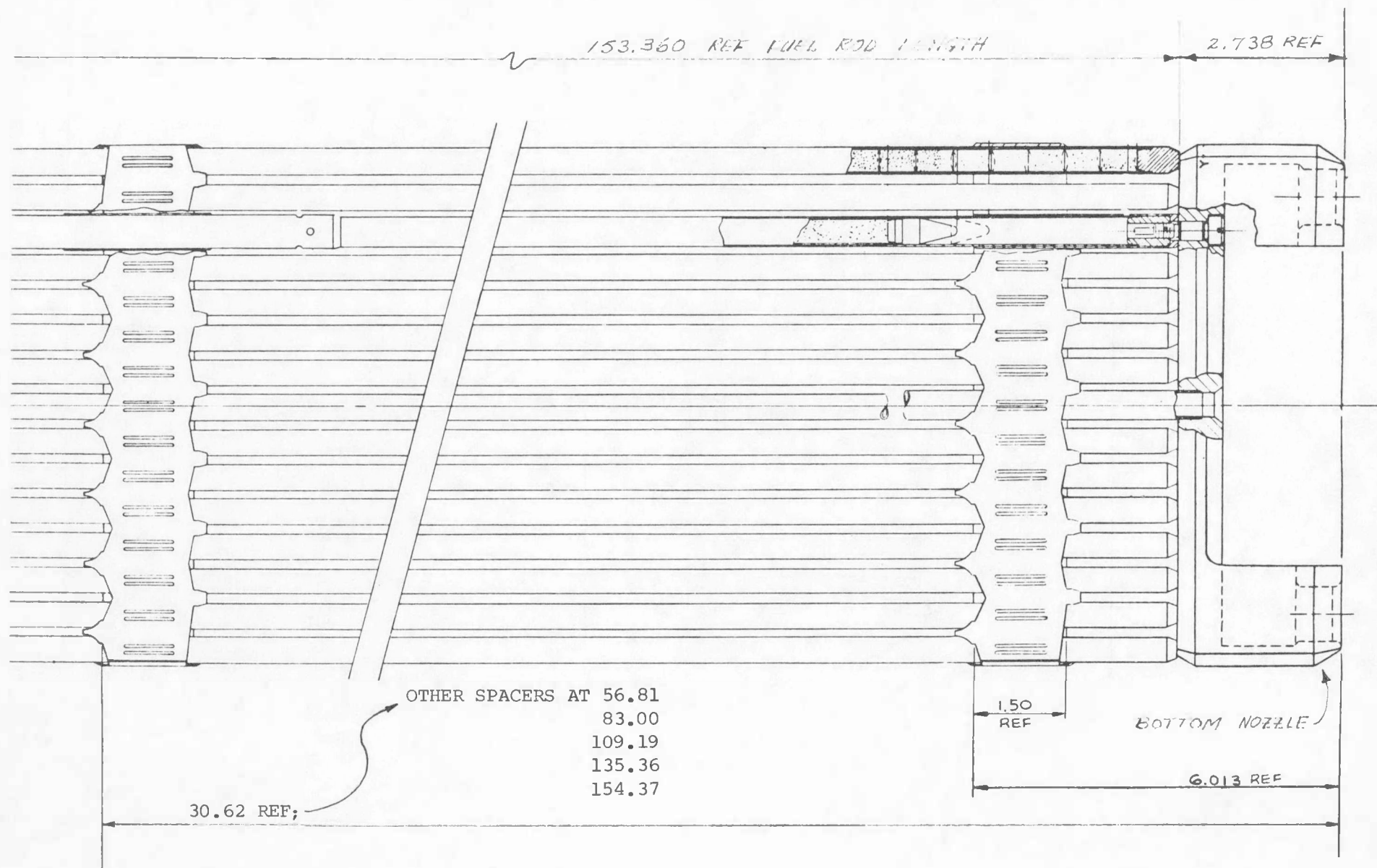
FUEL ASSEMBLY AND CONTROL CLUSTER CROSS SECTION

Diagram 2.2-8A



Assembly-wise Burnable Poison Rod Locations

Diagram 2.2-9  
Spacer Grid Locations



REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 6

CYCLE: 1

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL PIN TYPE 1.85 w/o

| ITEM (Unit)                                               | VALUE                   | SOURCE             | COMMENTS |
|-----------------------------------------------------------|-------------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                         |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub><br>1.85 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.3                    | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                    | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                   | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available           | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144                     | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4              | FSAR Table 1.4-1   | none     |

Verified By: BZT Date: 5/26/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 2 of 6

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

FUEL PIN TYPE 1.85 w/o

| ITEM (Unit)                                  | VALUE | SOURCE                              | COMMENTS                                 |
|----------------------------------------------|-------|-------------------------------------|------------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                           | none                                     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                    | none                                     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                | calculated from data in FSAR Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | 7     | FSAR Table 3.2.3-1 and Fig. 3.2.3-9 | approximate value                        |
|                                              |       |                                     |                                          |
|                                              |       |                                     |                                          |
|                                              |       |                                     |                                          |
|                                              |       |                                     |                                          |
|                                              |       |                                     |                                          |
| Verified By: <u>ATG</u> Date: <u>5/24/76</u> |       |                                     |                                          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 3 of 6

CYCLE: 1

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

FUEL PIN TYPE 2.55 w/o

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 2.55 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.19                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | not available        | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144.                 | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified By: AZ Date: 5/24/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 4 of 6

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL PIN TYPE 2.55 w/o

| ITEM (Unit)                                  | VALUE | SOURCE                               | COMMENTS                                 |
|----------------------------------------------|-------|--------------------------------------|------------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                            | none                                     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                     | none                                     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                 | Calculated from data in FSAR Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | 7     | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | approximate                              |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
| Verified By: <u>ATZ</u> Date: <u>5/24/76</u> |       |                                      |                                          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 5 of 6

CYCLE: 1

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

FUEL PIN TYPE 3.10 w/o

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 3.10 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.08                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3649                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | not available        | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 143.474              | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified By: AKG Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 1

FUEL PIN TYPE 3.10 w/o

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 6 of 6

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                  | VALUE | SOURCE                               | COMMENTS                                 |
|----------------------------------------------|-------|--------------------------------------|------------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                            | none                                     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                     | none                                     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                 | calculated from data in FSAR Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | 7     | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | approximate                              |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
|                                              |       |                                      |                                          |
| Verified By: <u>APZ</u> Date: <u>5/20/76</u> |       |                                      |                                          |

REACTOR: Turkey Point 3

CYCLE: 1

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 1

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                                             | VALUE | SOURCE | COMMENTS                                                                                                                                   |
|-------------------------------------------------------------------------|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 6.0 Water (or inert) Rod Cell<br>For each water (or inert)<br>cell type |       |        |                                                                                                                                            |
| 6.1 Tube material and density<br>(g/cc)                                 | None  |        | No additional water cell data<br>required. Guide tubes contain<br>either control rod, instrument<br>pin, burnable poison rods or<br>water. |
|                                                                         |       |        |                                                                                                                                            |
| 6.2 Tube O.D. (in)                                                      |       |        |                                                                                                                                            |
| 6.3 Tube I.D. (in)                                                      |       |        |                                                                                                                                            |
| 6.4 Inert material                                                      |       |        |                                                                                                                                            |
| 6.5 Inert material density<br>(g/cc)                                    |       |        |                                                                                                                                            |
| 6.6 Inert material O.D. (in)                                            |       |        |                                                                                                                                            |
| 6.7 Inert material I.D. (in)                                            |       |        |                                                                                                                                            |
|                                                                         |       |        |                                                                                                                                            |

Verified By: AKY Date: 5/24/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 2

CYCLE: 1

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                                   | VALUE                                   | SOURCE             | COMMENTS                               |
|---------------------------------------------------------------|-----------------------------------------|--------------------|----------------------------------------|
| 7.0 Burnable Poison Cell (for each burnable poison cell type) |                                         |                    |                                        |
| 7.1 Guide tube material                                       | Zircaloy-4                              | FSAR p. 3.2.3-14   | none                                   |
| 7.2 Guide tube density (g/cc)                                 | 6.56                                    | NAI 70-52          | none                                   |
| 7.3 Guide tube O.D. (in)                                      | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8  | Calculated from data in Figure 3.2.3-8 |
| 7.4 Guide tube I.D. (in)                                      | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 | none                                   |
| 7.5 Burnable poison pin clad material                         | Stainless steel                         | Idem               | none                                   |
| 7.6 Burnable poison clad density (g/cc)                       | 7.91                                    | NAI 70-52          | none                                   |
| 7.7 Burnable poison clad O.D. (in)                            | .4395                                   | FSAR Table 3.2.3-1 | none                                   |
| 7.8 Burnable poison clad I.D. (in)                            | not available                           | not applicable     | none                                   |
| 7.9 Poison pin material                                       | Borosilicate glass                      | FSAR Table 3.2.3-1 | none                                   |
| Verified By: <u>APG</u> Date: <u>5/26/76</u>                  |                                         |                    |                                        |

REACTOR: Turkey Point 3

CYCLE: 1

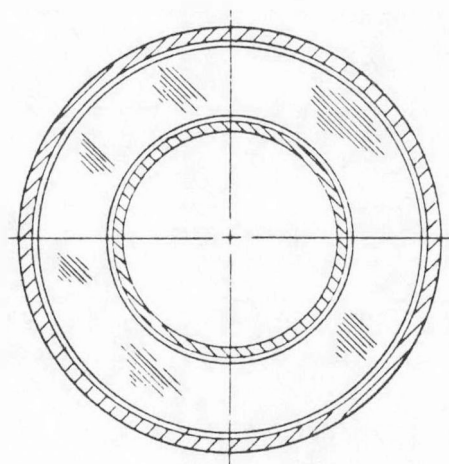
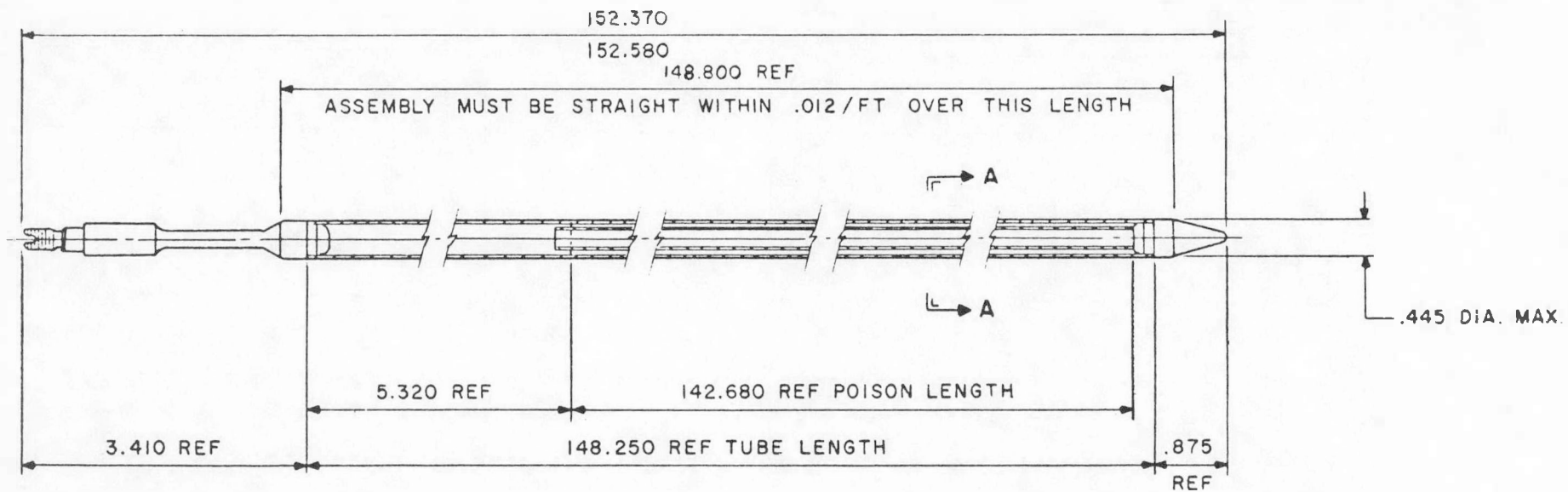
TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2Rev. 0 Date: 4/28/76

| ITEM (Unit)                           | VALUE                            | SOURCE             | COMMENTS                  |
|---------------------------------------|----------------------------------|--------------------|---------------------------|
| 7.10 Poison pin density (g/cc)        | linear $B_{nat} = .0429$ g/cm    | FSAR Table 3.2.3-1 | none                      |
| 7.11 Poison pin O.D. (in)             | not available                    | not applicable     | none                      |
| 7.12 Poison pin I.D. (in)             | not available                    | not applicable     | none                      |
| 7.13 Poison pin composition           | .0429 gm B natural per cm height | FSAR Table 3.2.3-1 | none                      |
| 7.14 Poison length and axial location | 142.680<br>See diagram           | FSAR Fig. 3.2.3-11 | Diagram # 2.2-10 attached |
| 7.15 Inner Tube material              | S.S.                             | FSAR Table 3.2.3-1 | none                      |
| 7.16 Inner Tube O.D.                  | .2365                            | Idem               | none                      |
| 7.17 Inner Tube I.D.                  | not available                    | not applicable     | none                      |
|                                       |                                  |                    |                           |
|                                       |                                  |                    |                           |

Verified By: 1779Date: 5/24/76



**SECTION A-A**  
ENLARGED DETAIL

Diagram 2.2-10  
Burnable Poison Rod

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 1 of 8

CYCLE: 1

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 0 Date: 4/28/76

ASSEMBLY TYPE: 1 and 11 (Region 1)

| ITEM (Unit)          | VALUE | SOURCE                                                                                        | COMMENTS                             |
|----------------------|-------|-----------------------------------------------------------------------------------------------|--------------------------------------|
| <u>Material (kg)</u> |       |                                                                                               |                                      |
| 1. U- total          | 452.6 | FP&L Records; AEC-741's Fuel Shipping                                                         | none                                 |
|                      |       | Records; Summary Report of Turkey Pt Unit 3 Nuclear Power Plant Start-up Physics Measurements |                                      |
| 2. U-238             | 444.2 |                                                                                               | Assumed equal to U-total minus U-235 |
| 3. U-235             | 8.423 | Idem                                                                                          | none                                 |
| 4. U-234             |       |                                                                                               | not known                            |
| 5. U-236             |       |                                                                                               | not known                            |

Verified By: AFZ Date: 5/26/76

REACTOR: Turkey Point 3

CYCLE: 1

ASSEMBLY TYPE: 1 and 11 (Region 1)

TABLE 2.3

PWR AVERAGE ASSEMBLY FUEL LOADING

Sheet 2 of 8

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                  | VALUE  | SOURCE | COMMENTS |
|----------------------------------------------|--------|--------|----------|
| 6. UO <sub>2</sub>                           | 513.4  | Idem   | none     |
| 7. B - Natural                               | 0.     | Idem   | none     |
| 8. B-10                                      | 0.     | Idem   | none     |
| 9. w/o U-235                                 | 1.861  | Idem   | none     |
| 10. Total Core loading (all fuel types)      |        |        |          |
| Kg U                                         | 70,301 | Idem   | none     |
| Kg U-235                                     | 1,756. | Idem   | none     |
|                                              |        |        |          |
|                                              |        |        |          |
| Verified By: <u>ASL</u> Date: <u>5/24/76</u> |        |        |          |

REACTOR: Turkey Point 3

CYCLE: 1

ASSEMBLY TYPE: 2 (Region 2)

TABLE 2.3

PWR AVERAGE ASSEMBLY FUEL LOADING

Sheet 3 of 8

Rev. 0 Date: 4/28/76

| ITEM (Unit)          | VALUE         | SOURCE                                                    | COMMENTS                            |
|----------------------|---------------|-----------------------------------------------------------|-------------------------------------|
| <u>Material</u> (kg) |               |                                                           |                                     |
| 1. U- total          | 448.8         | FP&L Records; AEC-471's Fuel Shipping                     | none                                |
|                      |               | Records; Summary Report of Turkey Pt Unit 3 Nuclear Power |                                     |
|                      |               | Plant Start-up Physics Measurements                       |                                     |
| 2. U-238             | 437.3         |                                                           | Assume equal to U-total minus U-235 |
| 3. U-235             | 11.49         | Idem                                                      | none                                |
| 4. U-234             |               |                                                           | not known                           |
| 5. U-236             |               |                                                           | not known                           |
| 6. $\text{UO}_2$     | 509.2         | Idem                                                      | none                                |
| 7. B - Natural       | not available | not applicable                                            | none                                |

Verified By: AYG

Date: 5/24/76

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 4 of 8

CYCLE: 1

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 0 Date: 4/28/76

ASSEMBLY TYPE: 2 (Region 2)

| ITEM (Unit)                                  | VALUE         | SOURCE         | COMMENTS |
|----------------------------------------------|---------------|----------------|----------|
| 8. B-10                                      | not available | not applicable | none     |
| 9. w/o U-235                                 | 2.560         | Idem           | none     |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
|                                              |               |                |          |
| Verified By: <u>BZy</u> Date: <u>5/26/76</u> |               |                |          |

REACTOR: Turkey Point 3

CYCLE: 1

ASSEMBLY TYPE: 3 (Region 3)

TABLE 2.3

PWR AVERAGE ASSEMBLY FUEL LOADING

Sheet 5 of 8

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                  | VALUE | SOURCE                                                  | COMMENTS                            |
|----------------------------------------------|-------|---------------------------------------------------------|-------------------------------------|
| <u>Material</u> (kg)                         |       |                                                         |                                     |
| 1. U- total                                  | 441.9 | FP&L Records; AEC-741s Fuel Shipping Records Summary    | none                                |
|                                              |       | Report of Turkey Pt Unit 3 Nuclear Power Plant Start-up |                                     |
|                                              |       | Physics Measurements                                    |                                     |
| 2. U-238                                     | 428.2 |                                                         | Assume equal to U-total minus U-235 |
| 3. U-235                                     | 13.70 | Idem                                                    | none                                |
| 4. U-234                                     |       |                                                         | not known                           |
| 5. U-236                                     |       |                                                         | not known                           |
| 6. $\text{UO}_2$                             | 501.3 | Idem                                                    | none                                |
| 7. B-Natural                                 | 0     | Idem                                                    | none                                |
| Verified By: <u>ARL</u> Date: <u>5/24/76</u> |       |                                                         |                                     |

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 6 of 8

CYCLE: 1

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 0 Date: 4/28/76

ASSEMBLY TYPE: 3 (Region 3)

| ITEM (Unit)                                 | VALUE | SOURCE | COMMENTS |
|---------------------------------------------|-------|--------|----------|
| 8. B-10                                     | 0     | Idem   | none     |
| 9. w/o U-235                                | 3.101 | Idem   | none     |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
|                                             |       |        |          |
| Verified By: <u>RT</u> Date: <u>5/24/76</u> |       |        |          |

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 7 of 8

CYCLE: 1

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 1 Date: 4/5/77ASSEMBLY TYPE: 4 (Region 3)

| ITEM (Unit)                                  | VALUE | SOURCE                                                                                           | COMMENTS                            |
|----------------------------------------------|-------|--------------------------------------------------------------------------------------------------|-------------------------------------|
| <u>Material</u> (kg)                         |       |                                                                                                  |                                     |
| 1. U- total                                  | 441.9 | FP&L Records; AEC-741's Fuel Shipping                                                            | none                                |
|                                              |       | Records; Summary Report of Turkey Point Unit 3 Nuclear Power Plant Start-up Physics Measurements |                                     |
| 2. U-238                                     | 428.2 |                                                                                                  | Assume equal to U-total minus U-235 |
| 3. U-235                                     | 13.70 | Idem                                                                                             | none                                |
| 4. U-234                                     |       |                                                                                                  | not known                           |
| 5. U-236                                     |       |                                                                                                  | not known                           |
|                                              |       |                                                                                                  |                                     |
| Verified By: <u>APZ</u> Date: <u>5/24/76</u> |       |                                                                                                  |                                     |

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 8 of 8

CYCLE: 1

PWR AVERAGE ASSEMBLY FUEL LOADING

ASSEMBLY TYPE: 4 (Region 3)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                   | VALUE         | SOURCE         | COMMENTS |
|-----------------------------------------------|---------------|----------------|----------|
| 6. $\text{UO}_2$                              | 501.3         | Idem           | none     |
| 7. B - Natural                                | not available | not applicable | none     |
| 8. B-10                                       | not available | not applicable | none     |
| 9. w/o U-235                                  | 3.101         | Idem           | none     |
|                                               |               |                |          |
|                                               |               |                |          |
|                                               |               |                |          |
|                                               |               |                |          |
|                                               |               |                |          |
| Verified By: <u>2979</u> Date: <u>5/24/76</u> |               |                |          |

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 1 of 2

CYCLE: 1

## PART A - PWR HISTORY

Rev. 0 Date: 4/28/76

EXPOSURE: 0 MWD/MTU to 13,250 MWD/MTU

| ITEM (Unit)                                                                  | VALUE             | SOURCE                        | COMMENTS                                                                                                |
|------------------------------------------------------------------------------|-------------------|-------------------------------|---------------------------------------------------------------------------------------------------------|
| <u>PWR History</u> (in ~ 500 MWD/MTU steps) average value over time interval |                   |                               |                                                                                                         |
| 1. Core power (MWt)                                                          | See diagram 2.4-1 | Semi-annual Operating Reports | Calculated from operating reports                                                                       |
| 2. Total core flow ( $10^6$ lbs/hr)                                          | 101.5             | NCCO log sheets               | Nominal 100%                                                                                            |
| 3. System pressure (psia)                                                    | 2250<br>1900      | NCCO log sheets               | 2250 nominal from BOC to ~6400 MWD/MTU<br>1900 nominal from 6400 MWD/MTU to EOC                         |
| 4. Soluble poison concentration (ppm)                                        | See diagram 2.4-1 | log sheets and calculations   | Soluble poison curve is for the core conditions of hot-full power, all rods out, and equilibrium xenon. |
| 5. Inlet temperature (oF)                                                    | 539               | NCCO log sheets               | nominal inlet                                                                                           |
|                                                                              |                   |                               |                                                                                                         |
| Verified By: <u>ATP</u> Date: <u>5/24/76</u>                                 |                   |                               |                                                                                                         |

REACTOR: Turkey Point 3

CYCLE: 1

EXPOSURE: 0 MWD/MTU to 13,250 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART A - PWR HISTORY

Sheet 2 of 2

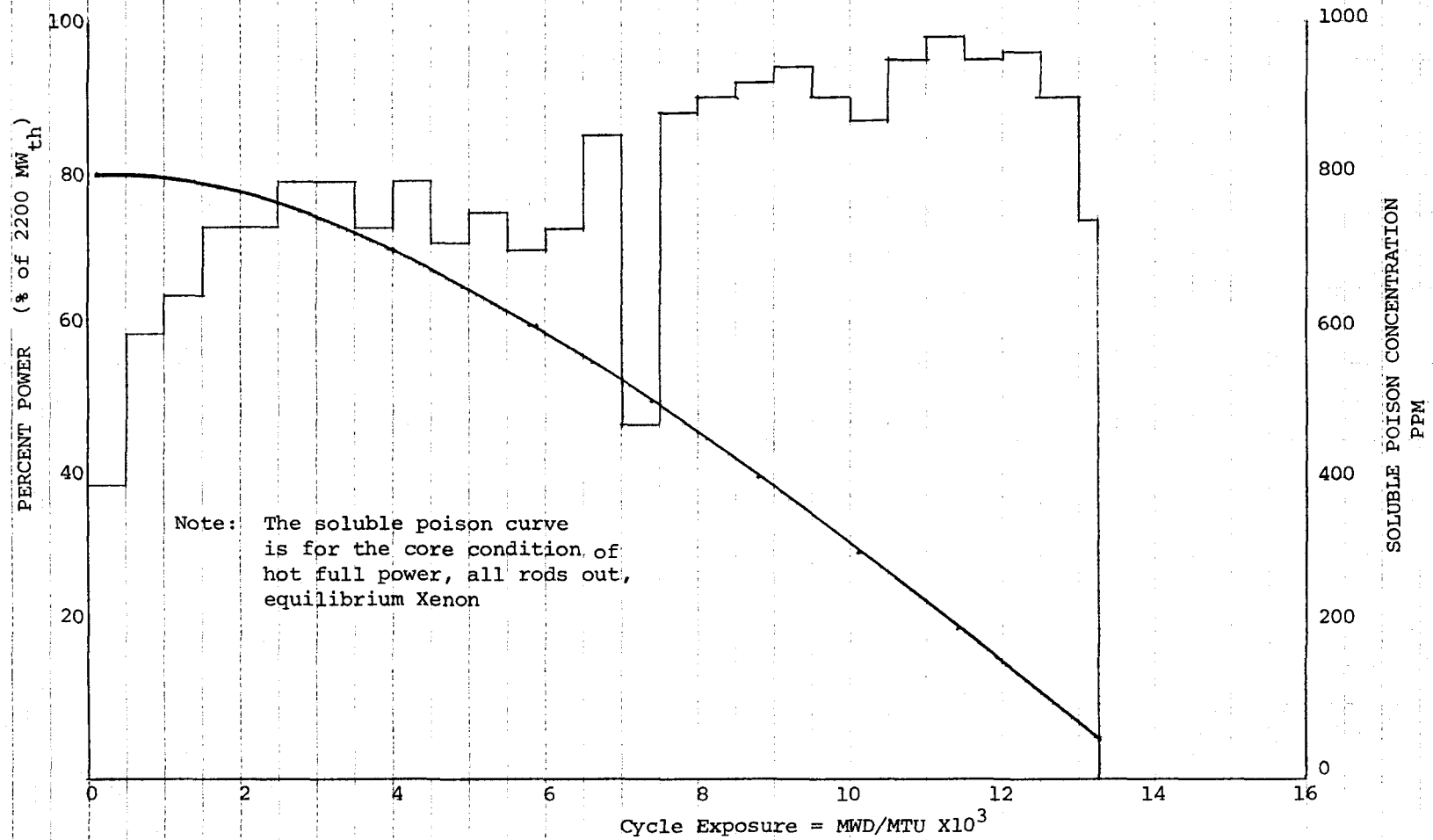
Rev. 0 Date: 4/28/76

| ITEM (Unit)                               | VALUE                    | SOURCE             | COMMENTS      |
|-------------------------------------------|--------------------------|--------------------|---------------|
| 6. Control rod positions<br>(by location) | Bank D<br>~ 10% inserted | NCCO<br>log sheets | nominal value |
|                                           |                          |                    |               |
|                                           |                          |                    |               |
|                                           |                          |                    |               |
|                                           |                          |                    |               |
|                                           |                          |                    |               |
|                                           |                          |                    |               |
|                                           |                          |                    |               |

NOTE: Items 2, 3, 5 and 6 above are listed at cycle nominal values for use in EPRI-NODE.  
Item 4 is a nominal boron letdown curve for cycle 1.  
Actual values of items 1 through 6 are presented in Table 2.4, Part B for state point conditions.

Verified By: RTG Date: 5/26/76

Diagram 2.4-1  
Turkey Point 3  
Cycle 1



REACTOR: Turkey Point 3

CYCLE: 1

EXPOSURE 350 (BOC.1 1/13/73) MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART B - PWR STATEPOINT

Sheet 1 of 6

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE                                      | SOURCE                | COMMENTS                                                   |
|---------------------------------------------------|--------------------------------------------|-----------------------|------------------------------------------------------------|
| <u>PWR Statepoint Data</u>                        |                                            |                       |                                                            |
| 1. Core power (MWt)                               | 1056                                       | NCCO<br>log sheets    | 48% power                                                  |
| 2. Total core flow ( $10^6$ lbs/hr.)              | 101.5                                      | Idem                  | 100% flow                                                  |
| 3. System pressure (psia)                         | 2250.                                      | Idem                  | none                                                       |
| 4. Soluble poison concentration<br>(ppm)          | 882.                                       | Daily Water<br>Report | none                                                       |
| 5. Inlet temperature (oF)                         | 540                                        | NCCO<br>log sheet     | T <sub>ave</sub> = 553. log sheet<br>$\Delta T$ = 26. data |
| 6. Time at associated power<br>level (hrs)        | at least<br>72 hrs.                        | Idem                  | none                                                       |
| 7. Xenon condition                                | equilibrium                                | inferred from item 6  | none                                                       |
| 8. Control rod positions<br>(by location)         | all rods out except<br>bank D at 139 steps | NCCO log sheet        | 228 steps is fully withdrawn<br>position                   |
| 9. Inter-calibrated data from<br>incore traverses | See attached                               | FP&L records          | Diagram #2.4-2 attached                                    |

Verified By: DPZ Date: 5/24/76

### Description of Incore Traverse Data

The data tabulated in Diagram 2.4-2 (and in similar diagrams for this and subsequent cycles) are normalized detector readings which are proportional to reaction rates in the adjacent fuel rods. These readings have been adjusted for core power level, detector sensitivity, detector scale and background signal. The values on the 1st row are readings taken in the various thimbles when the detector was positioned at the bottom of the active fuel; values on the 29th row correspond to the detector positioned at the top of the active fuel. The set of 29 readings were taken at equally spaced axial positions. The readings have been normalized to an average value of 1.0, but have not been converted to units of local power.

Other entries are defined as follows:

- (1) The THIMBLE AVERAGE value is computed in the usual fashion, except that the values taken at the top and bottom of the active fuel are weighted by one-half:

$$\text{Thimble Average} \equiv \frac{1}{28} \left[ \frac{\alpha_1}{2} + \frac{\alpha_{29}}{2} + \sum_{i=2}^{28} \alpha_i \right]$$

- (2) The AXIAL PEAK is the ratio of the maximum reading in a thimble to the thimble average value.
- (3) The value labelled "AVERAGE\*PEAK" is the product of the thimble average and the axial peak; this is simply the maximum value for that thimble.
- (4) The AXIAL OFFSET for this edit is defined by:

$$\text{Axial Offset (\%)} = \left( \frac{V_{\text{bot}} - V_{\text{top}}}{V_{\text{bot}} + V_{\text{top}}} \right) \times 100,$$

where  $V_{\text{bot, top}}$  are averages of voltage readings for nodes below

and above the core midplane:

$$V_{\text{bot}} \equiv \frac{1}{14} \left( \frac{\alpha_1}{2} + \frac{\alpha_{15}}{2} + \sum_{i=2}^{14} \alpha_i \right)$$

$$V_{\text{top}} \equiv \frac{1}{14} \left( \frac{\alpha_{15}}{2} + \frac{\alpha_{29}}{2} + \sum_{i=16}^{28} \alpha_i \right)$$

This is not the standard definition. The standard definition,  $(P_{\text{top}} - P_{\text{bot}}) / (P_{\text{bot}} + P_{\text{top}})$ , is used in all edits of the power distribution.  $P_{\text{top}}$  and  $P_{\text{bot}}$  are defined in a similar fashion but differ by the factors applied to convert from detector signal (volts) to fuel assembly power.

The normalized reaction rates shown in these diagrams are typically used for comparison with EPRI-NODE-P incore instrument reading predictions (See EPRI-NODE-P documentation; Part II, Chapter 14, page 14-14).

Diagram 2.4-2

Incore Power Distribution, Cycle 1  
350 MWD/MTU (1,13.73)

|    | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8                      | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|----|--------|--------|--------|----------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.0725 | 0.0716 | 0.1416 | 0.0807                     | 0.1082 | 0.1332 | 0.0718 | 0.1332 | 0.1078 | 0.0670 |
| 2  | 0.1107 | 0.1172 | 0.2378 | 0.1412                     | 0.2193 | 0.2137 | 0.1096 | 0.2164 | 0.2184 | 0.1154 |
| 3  | 0.1890 | 0.1954 | 0.3992 | 0.2564                     | 0.3646 | 0.3524 | 0.1842 | 0.3829 | 0.3631 | 0.1907 |
| 4  | 0.2481 | 0.2540 | 0.5125 | 0.3284                     | 0.4814 | 0.4412 | 0.2386 | 0.4939 | 0.4794 | 0.2512 |
| 5  | 0.3426 | 0.3377 | 0.6908 | 0.4811                     | 0.6608 | 0.6133 | 0.3298 | 0.6715 | 0.6410 | 0.3377 |
| 6  | 0.4094 | 0.4019 | 0.8182 | 0.5791                     | 0.7947 | 0.7381 | 0.3961 | 0.8130 | 0.7630 | 0.4047 |
| 7  | 0.4638 | 0.4493 | 0.9286 | 0.6626                     | 0.9057 | 0.8325 | 0.4431 | 0.9351 | 0.8623 | 0.4549 |
| 8  | 0.5020 | 0.4847 | 1.0107 | 0.7433                     | 0.9997 | 0.9046 | 0.4818 | 1.0267 | 0.9445 | 0.4912 |
| 9  | 0.5087 | 0.5061 | 1.0447 | 0.7750                     | 1.0254 | 0.9157 | 0.4910 | 1.0572 | 0.9616 | 0.5079 |
| 10 | 0.6003 | 0.5935 | 1.2514 | 0.9680                     | 1.2646 | 1.0822 | 0.5877 | 1.3014 | 1.1856 | 0.5972 |
| 11 | 0.6470 | 0.6419 | 1.3760 | 1.1178                     | 1.4213 | 1.1710 | 0.6347 | 1.4624 | 1.3203 | 0.5489 |
| 12 | 0.6852 | 0.6810 | 1.4836 | 1.2763                     | 1.5665 | 1.1849 | 0.6724 | 1.6011 | 1.4636 | 0.6744 |
| 13 | 0.7091 | 0.7042 | 1.5515 | 1.3886                     | 1.6748 | 1.2765 | 0.6945 | 1.6871 | 1.5487 | 0.6921 |
| 14 | 0.6852 | 0.6912 | 1.4949 | 1.3800                     | 1.6406 | 1.2459 | 0.6595 | 1.6483 | 1.5118 | 0.6661 |
| 15 | 0.7702 | 0.7684 | 1.4326 | 1.5960                     | 1.9083 | 1.4013 | 0.7535 | 1.7288 | 1.7217 | 0.7386 |
| 16 | 0.8093 | 0.8010 | 1.5090 | 1.6825                     | 2.0109 | 1.4541 | 0.7848 | 1.9868 | 1.8011 | 0.7665 |
| 17 | 0.8255 | 0.8121 | 1.5345 | 1.6998                     | 2.0451 | 1.4652 | 0.8005 | 2.0146 | 1.8238 | 0.7758 |
| 18 | 0.8112 | 0.7944 | 1.5062 | 1.6796                     | 2.0194 | 1.4430 | 0.7913 | 2.0035 | 1.8068 | 0.7563 |
| 19 | 0.7425 | 0.7182 | 1.6421 | 1.5442                     | 1.8229 | 1.3125 | 0.7185 | 1.8259 | 1.6395 | 0.6940 |
| 20 | 0.7797 | 0.7665 | 1.7610 | 1.6623                     | 1.9852 | 1.4124 | 0.7728 | 1.9674 | 1.7671 | 0.7368 |
| 21 | 0.7730 | 0.7582 | 1.7384 | 1.6508                     | 1.9681 | 1.4069 | 0.7719 | 1.9619 | 1.7558 | 0.7228 |
| 22 | 0.7406 | 0.7191 | 1.6619 | 1.5788                     | 1.8742 | 1.3431 | 0.7378 | 1.8647 | 1.6934 | 0.6884 |
| 23 | 0.6747 | 0.6577 | 1.5147 | 1.4462                     | 1.7090 | 1.2293 | 0.6733 | 1.7121 | 1.5515 | 0.6251 |
| 24 | 0.5583 | 0.5423 | 1.2542 | 1.1725                     | 1.3643 | 1.0239 | 0.5462 | 1.4124 | 1.2679 | 0.5219 |
| 25 | 0.5421 | 0.5247 | 1.1976 | 1.1466                     | 1.3643 | 0.9795 | 0.5389 | 1.3736 | 1.2367 | 0.5033 |
| 26 | 0.4543 | 0.4475 | 1.0192 | 0.9709                     | 1.1621 | 0.8297 | 0.4569 | 1.1655 | 1.0495 | 0.4251 |
| 27 | 0.3464 | 0.3461 | 0.7729 | 0.7433                     | 0.8972 | 0.6355 | 0.3491 | 0.8963 | 0.8084 | 0.3265 |
| 28 | 0.2042 | 0.2102 | 0.4558 | 0.4523                     | 0.5526 | 0.3774 | 0.2174 | 0.5300 | 0.4822 | 0.1954 |
| 29 | 0.1088 | 0.1060 | 0.2095 | 0.2449                     | 0.2506 | 0.1804 | 0.1115 | 0.2470 | 0.2241 | 0.0977 |
|    | 0.5437 | 0.5362 | 1.1420 | THIMBLE AVERAGE<br>1.0459  | 1.2815 | 0.9801 | 0.5331 | 1.2832 | 1.1730 | 0.5175 |
|    | 1.518  | 1.515  | 1.542  | AXIAL PEAK<br>1.625        | 1.596  | 1.495  | 1.501  | 1.570  | 1.555  | 1.499  |
|    | 0.826  | 0.812  | 1.761  | AVERAGE * PEAK<br>1.700    | 2.045  | 1.465  | 0.800  | 2.015  | 1.824  | 0.776  |
|    | -14.31 | -13.70 | -15.02 | AXIAL OFFSET (%)<br>-25.32 | -21.81 | -14.44 | -15.12 | -20.80 | -19.69 | -12.57 |

Note: See Diagram 2.2-3 for location of Incore detectors.

Sheet 1 of 5 sheets

Diagram 2.4-2

## Incore Power Distributions, Cycle 1

350 MWd/MTU (1,13,73)

|    | 11 L 9 | 12 B 10 | 13 L 4 | 14 F 13                    | 15 F 6 | 16 J 12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|----|--------|---------|--------|----------------------------|--------|---------|--------|--------|--------|--------|
| 1  | 0.1318 | 0.0908  | 0.1184 | 0.0778                     | 0.1262 | 0.1046  | 0.0893 | 0.0897 | 0.1446 | 0.1261 |
| 2  | 0.2170 | 0.1475  | 0.1974 | 0.1613                     | 0.2152 | 0.1596  | 0.1758 | 0.1386 | 0.2225 | 0.2242 |
| 3  | 0.3735 | 0.2553  | 0.3186 | 0.2939                     | 0.3816 | 0.2752  | 0.2930 | 0.2392 | 0.3782 | 0.3671 |
| 4  | 0.3323 | 0.3234  | 0.4201 | 0.3745                     | 0.4906 | 0.3523  | 0.3907 | 0.3153 | 0.4727 | 0.4792 |
| 5  | 0.6756 | 0.4568  | 0.5695 | 0.5416                     | 0.7058 | 0.5119  | 0.5275 | 0.4295 | 0.6479 | 0.6558 |
| 6  | 0.8102 | 0.5447  | 0.6795 | 0.6569                     | 0.8521 | 0.6054  | 0.6224 | 0.5029 | 0.7842 | 0.7847 |
| 7  | 0.9200 | 0.6213  | 0.7697 | 0.7519                     | 0.9726 | 0.6907  | 0.7061 | 0.5654 | 0.8954 | 0.8996 |
| 8  | 1.0106 | 0.6781  | 0.8346 | 0.8239                     | 1.0759 | 0.7651  | 0.7675 | 0.6143 | 0.9844 | 0.9921 |
| 9  | 1.0463 | 0.6809  | 0.8571 | 0.8384                     | 1.1046 | 0.7816  | 0.8010 | 0.6252 | 1.0094 | 1.0341 |
| 10 | 1.2853 | 0.8199  | 1.0066 | 1.0054                     | 1.3456 | 0.9797  | 0.9322 | 0.7502 | 1.2513 | 1.2723 |
| 11 | 1.4473 | 0.8880  | 1.0912 | 1.1092                     | 1.4947 | 1.1228  | 1.0243 | 0.8128 | 1.4209 | 1.4433 |
| 12 | 1.5874 | 0.9504  | 1.1560 | 1.1927                     | 1.6238 | 1.2632  | 1.0912 | 0.8644 | 1.5822 | 1.6058 |
| 13 | 1.6780 | 0.9930  | 1.1927 | 1.2446                     | 1.6984 | 1.3430  | 1.1415 | 0.8943 | 1.6907 | 1.7179 |
| 14 | 1.6423 | 0.9476  | 1.1673 | 1.2158                     | 1.6525 | 1.3375  | 1.1191 | 0.8699 | 1.6684 | 1.6699 |
| 15 | 1.8675 | 1.0894  | 1.3195 | 1.3800                     | 1.8849 | 1.5081  | 1.2615 | 0.9813 | 1.9215 | 1.9421 |
| 16 | 1.9499 | 1.1405  | 1.3759 | 1.4462                     | 1.9882 | 1.5769  | 1.3173 | 1.0221 | 2.0188 | 2.0318 |
| 17 | 1.9746 | 1.1547  | 1.3872 | 1.4750                     | 2.0284 | 1.6044  | 1.3340 | 1.0329 | 2.0577 | 2.0682 |
| 18 | 1.9581 | 1.1377  | 1.3590 | 1.4635                     | 2.0054 | 1.5906  | 1.3117 | 1.0166 | 2.0466 | 2.0430 |
| 19 | 1.7961 | 1.0327  | 1.2293 | 1.3252                     | 1.8103 | 1.4063  | 1.2029 | 0.9297 | 1.8742 | 1.8664 |
| 20 | 1.9307 | 1.1150  | 1.3393 | 1.4318                     | 1.9452 | 1.5356  | 1.2866 | 0.9976 | 2.0049 | 2.0206 |
| 21 | 1.9471 | 1.1093  | 1.3308 | 1.4289                     | 1.9423 | 1.5108  | 1.2643 | 0.9922 | 1.9799 | 1.9953 |
| 22 | 1.8290 | 1.0554  | 1.2688 | 1.3713                     | 1.8620 | 1.4503  | 1.2057 | 0.9460 | 1.8909 | 1.9001 |
| 23 | 1.6643 | 0.9646  | 1.1588 | 1.2561                     | 1.7099 | 1.3375  | 1.1136 | 0.8617 | 1.7463 | 1.7347 |
| 24 | 1.3732 | 0.8001  | 0.9361 | 1.0227                     | 1.3800 | 1.1008  | 0.9266 | 0.7231 | 1.4543 | 1.4152 |
| 25 | 1.3375 | 0.7745  | 0.9135 | 0.9939                     | 1.3484 | 1.0678  | 0.8903 | 0.6986 | 1.3959 | 1.3956 |
| 26 | 1.1315 | 0.6582  | 0.7754 | 0.8441                     | 1.1447 | 0.9082  | 0.7507 | 0.5953 | 1.1901 | 1.1798 |
| 27 | 0.8678 | 0.5107  | 0.5949 | 0.6511                     | 0.8808 | 0.7073  | 0.5861 | 0.4512 | 0.9121 | 0.9164 |
| 28 | 0.5218 | 0.3121  | 0.3609 | 0.4091                     | 0.5308 | 0.4376  | 0.3600 | 0.2718 | 0.5339 | 0.5493 |
| 29 | 0.2444 | 0.1646  | 0.1776 | 0.2161                     | 0.2496 | 0.2174  | 0.1926 | 0.1386 | 0.2586 | 0.2578 |
|    | 1.2630 | 0.7603  | 0.9199 | THIMBLE AVERAGE<br>0.9591  | 1.2951 | 1.0032  | 0.8766 | 0.6877 | 1.2942 | 1.3006 |
|    | 1.563  | 1.519   | 1.508  | AXIAL PEAK<br>1.538        | 1.566  | 1.599   | 1.522  | 1.502  | 1.590  | 1.590  |
|    | 1.975  | 1.155   | 1.387  | AVERAGE * PEAK<br>1.475    | 2.028  | 1.604   | 1.334  | 1.033  | 2.058  | 2.068  |
|    | -20.68 | -16.42  | -14.75 | AXIAL OFFSET (%)<br>-18.54 | -19.37 | -21.72  | -16.33 | -15.27 | -22.50 | -22.01 |

Diagram 2.4-2

## Incore Power Distributions, Cycle 1

350 MWD/MTU (1.13.73)

|    | 21 F11 | 22 N 5 | 23 J10 | 24 J 5                     | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|--------|--------|--------|----------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.1045 | 0.1015 | 0.1082 | 0.1002                     | 0.1359 | 0.0987 | 0.0829 | 0.1123 | 0.0912 | 0.0824 |
| 2  | 0.1865 | 0.1635 | 0.1937 | 0.1775                     | 0.2434 | 0.1918 | 0.1186 | 0.2190 | 0.1652 | 0.1142 |
| 3  | 0.3221 | 0.2734 | 0.3162 | 0.3321                     | 0.3878 | 0.3187 | 0.1949 | 0.3651 | 0.2792 | 0.1900 |
| 4  | 0.4266 | 0.3580 | 0.4244 | 0.4237                     | 0.5123 | 0.4089 | 0.2533 | 0.4746 | 0.3675 | 0.2509 |
| 5  | 0.5820 | 0.4820 | 0.5697 | 0.6270                     | 0.6793 | 0.5696 | 0.3399 | 0.6487 | 0.4986 | 0.3351 |
| 6  | 0.7120 | 0.5751 | 0.6864 | 0.7644                     | 0.8067 | 0.6824 | 0.4068 | 0.7835 | 0.6011 | 0.3969 |
| 7  | 0.8052 | 0.6455 | 0.7804 | 0.8818                     | 0.9114 | 0.7839 | 0.4576 | 0.8958 | 0.6837 | 0.4437 |
| 8  | 0.8787 | 0.7019 | 0.8573 | 0.9763                     | 0.9879 | 0.8516 | 0.4953 | 0.9857 | 0.7464 | 0.4802 |
| 9  | 0.9126 | 0.7188 | 0.9001 | 0.9963                     | 1.0360 | 0.8685 | 0.5103 | 1.0306 | 0.7778 | 0.4980 |
| 10 | 1.0934 | 0.8457 | 1.0766 | 1.2569                     | 1.2313 | 1.0462 | 0.5932 | 1.2525 | 0.9401 | 0.5813 |
| 11 | 1.1980 | 0.9246 | 1.1991 | 1.4287                     | 1.3558 | 1.1534 | 0.6403 | 1.4069 | 1.0712 | 0.6281 |
| 12 | 1.2827 | 0.9810 | 1.3130 | 1.5833                     | 1.4577 | 1.2380 | 0.6779 | 1.5586 | 1.2193 | 0.6637 |
| 13 | 1.3364 | 1.0120 | 1.3900 | 1.6777                     | 1.5144 | 1.2803 | 0.7015 | 1.6821 | 1.3162 | 0.6843 |
| 14 | 1.3053 | 0.9782 | 1.3843 | 1.6319                     | 1.4719 | 1.2295 | 0.6789 | 1.6878 | 1.3190 | 0.6740 |
| 15 | 1.4918 | 1.0994 | 1.5665 | 1.8553                     | 1.6729 | 1.4072 | 0.7504 | 1.9517 | 1.5128 | 0.7479 |
| 16 | 1.5568 | 1.1417 | 1.6463 | 1.9383                     | 1.7465 | 1.4664 | 0.7815 | 2.0585 | 1.5897 | 0.7779 |
| 17 | 1.5737 | 1.1529 | 1.6662 | 1.9726                     | 1.7691 | 1.4889 | 0.7937 | 2.0950 | 1.6153 | 0.7929 |
| 18 | 1.5398 | 1.1417 | 1.6463 | 1.9669                     | 1.7493 | 1.4664 | 0.7787 | 2.0725 | 1.5840 | 0.7760 |
| 19 | 1.4155 | 1.0261 | 1.4811 | 1.7923                     | 1.6049 | 1.3226 | 0.7034 | 1.8815 | 1.4330 | 0.7133 |
| 20 | 1.5201 | 1.1191 | 1.5922 | 1.9182                     | 1.7153 | 1.4354 | 0.7514 | 2.0416 | 1.5441 | 0.7676 |
| 21 | 1.5059 | 1.1106 | 1.6150 | 1.9011                     | 1.6955 | 1.4213 | 0.7476 | 2.0135 | 1.5213 | 0.7582 |
| 22 | 1.4240 | 1.0627 | 1.5409 | 1.7951                     | 1.6134 | 1.3620 | 0.7137 | 1.9152 | 1.4387 | 0.7227 |
| 23 | 1.3053 | 0.9782 | 1.4042 | 1.6520                     | 1.4804 | 1.2577 | 0.6516 | 1.7608 | 1.3190 | 0.6627 |
| 24 | 1.0539 | 0.7949 | 1.1393 | 1.3399                     | 1.2143 | 1.0208 | 0.5348 | 1.4350 | 1.0968 | 0.5476 |
| 25 | 1.0256 | 0.7837 | 1.1080 | 1.3342                     | 1.1832 | 1.0039 | 0.5226 | 1.4041 | 1.0541 | 0.5308 |
| 26 | 0.8702 | 0.6681 | 0.9371 | 1.1395                     | 1.0077 | 0.8601 | 0.4435 | 1.1851 | 0.8889 | 0.4521 |
| 27 | 0.6753 | 0.5159 | 0.7206 | 0.8761                     | 0.7643 | 0.6711 | 0.3418 | 0.9127 | 0.6809 | 0.3482 |
| 28 | 0.4069 | 0.3214 | 0.4386 | 0.5411                     | 0.4472 | 0.4202 | 0.2053 | 0.5560 | 0.4188 | 0.2162 |
| 29 | 0.2063 | 0.1832 | 0.2279 | 0.2548                     | 0.2151 | 0.2228 | 0.1092 | 0.2527 | 0.2051 | 0.1114 |
|    | 1.0201 | 0.7756 | 1.0629 | THIMBLE AVERAGE<br>1.2485  | 1.1584 | 0.9781 | 0.5316 | 1.3020 | 0.9940 | 0.5304 |
|    | 1.543  | 1.486  | 1.568  | AXIAL PEAK<br>1.580        | 1.527  | 1.522  | 1.493  | 1.609  | 1.625  | 1.495  |
|    | 1.574  | 1.153  | 1.666  | AVERAGE * PEAK<br>1.973    | 1.769  | 1.489  | 0.794  | 2.095  | 1.615  | 0.793  |
|    | -17.09 | -14.73 | -19.84 | AXIAL OFFSET (%)<br>-21.42 | -16.76 | -16.93 | -12.86 | -23.07 | -22.48 | -14.41 |

Diagram 2.4-2

Incore Power Distributions, Cycle 1  
350 MWD/MTU (1,13.73)

|    | 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9           | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 O 5 | 40 L 6 |
|----|--------|--------|--------|------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.0657 | 0.0998 | 0.1324 | 0.0718           | 0.0809 | 0.1054 | 0.0781 | 0.0981 | 0.1119 | 0.0987 |
| 2  | 0.1371 | 0.1739 | 0.2179 | 0.1179           | 0.1195 | 0.1453 | 0.1060 | 0.1597 | 0.1930 | 0.1946 |
| 3  | 0.2543 | 0.3079 | 0.3778 | 0.1952           | 0.2013 | 0.2393 | 0.1758 | 0.2718 | 0.3216 | 0.3271 |
| 4  | 0.3257 | 0.4077 | 0.4798 | 0.2587           | 0.2703 | 0.3162 | 0.2372 | 0.3447 | 0.4223 | 0.4174 |
| 5  | 0.4714 | 0.5645 | 0.6784 | 0.3490           | 0.3502 | 0.4302 | 0.3125 | 0.4960 | 0.5789 | 0.5894 |
| 6  | 0.5629 | 0.6814 | 0.8135 | 0.4171           | 0.4164 | 0.5043 | 0.3822 | 0.5941 | 0.6936 | 0.7106 |
| 7  | 0.6286 | 0.7869 | 0.9163 | 0.4696           | 0.4679 | 0.5698 | 0.4353 | 0.6782 | 0.7803 | 0.8150 |
| 8  | 0.6829 | 0.8696 | 1.0121 | 0.5092           | 0.5065 | 0.6097 | 0.4799 | 0.7567 | 0.8446 | 0.8911 |
| 9  | 0.6971 | 0.9152 | 1.0562 | 0.5322           | 0.5194 | 0.6353 | 0.5273 | 0.7791 | 0.8698 | 0.9052 |
| 10 | 0.8371 | 1.1091 | 1.2630 | 0.6105           | 0.6076 | 0.7407 | 0.6780 | 0.9837 | 1.0292 | 1.0998 |
| 11 | 0.9086 | 1.2460 | 1.4037 | 0.6713           | 0.6582 | 0.8034 | 1.1161 | 1.1350 | 1.1187 | 1.2126 |
| 12 | 0.9686 | 1.3572 | 1.5222 | 0.7118           | 0.6959 | 0.8575 | 1.4732 | 1.2947 | 1.1830 | 1.3028 |
| 13 | 1.0029 | 1.4370 | 1.6022 | 0.7376           | 0.7170 | 0.8917 | 1.5987 | 1.3984 | 1.2277 | 1.3649 |
| 14 | 0.9714 | 1.4228 | 1.5691 | 0.7265           | 0.6949 | 0.8860 | 1.5904 | 1.3928 | 1.2026 | 1.3254 |
| 15 | 1.0857 | 1.6109 | 1.7787 | 0.8075           | 0.7786 | 0.9886 | 1.7773 | 1.5834 | 1.3424 | 1.5256 |
| 16 | 1.1371 | 1.6822 | 1.8559 | 0.8333           | 0.8117 | 1.0342 | 1.8471 | 1.6590 | 1.3983 | 1.6017 |
| 17 | 1.1543 | 1.7050 | 1.8807 | 0.8379           | 0.8209 | 1.0569 | 1.8666 | 1.6815 | 1.4151 | 1.6243 |
| 18 | 1.1457 | 1.6936 | 1.8587 | 0.8121           | 0.8071 | 1.0370 | 1.8415 | 1.6450 | 1.3899 | 1.5989 |
| 19 | 1.0343 | 1.5511 | 1.7291 | 0.7468           | 0.7372 | 0.9715 | 1.6852 | 1.4909 | 1.2641 | 1.4438 |
| 20 | 1.1086 | 1.6452 | 1.8146 | 0.8039           | 0.7988 | 1.0313 | 1.7996 | 1.6058 | 1.3452 | 1.5735 |
| 21 | 1.1086 | 1.6452 | 1.8008 | 0.8029           | 0.7961 | 1.0199 | 1.7801 | 1.5946 | 1.3284 | 1.5594 |
| 22 | 1.0771 | 1.5739 | 1.7263 | 0.7716           | 0.7602 | 0.9715 | 1.6964 | 1.5161 | 1.2613 | 1.4861 |
| 23 | 0.9886 | 1.4427 | 1.5912 | 0.7053           | 0.6894 | 0.8832 | 1.5513 | 1.3844 | 1.1606 | 1.3536 |
| 24 | 0.8086 | 1.1662 | 1.3099 | 0.5783           | 0.5635 | 0.7379 | 1.2723 | 1.1238 | 0.9704 | 1.0998 |
| 25 | 0.7886 | 1.1319 | 1.2658 | 0.5626           | 0.5405 | 0.7094 | 1.2277 | 1.0986 | 0.9453 | 1.0744 |
| 26 | 0.6743 | 0.9552 | 1.0700 | 0.4715           | 0.4532 | 0.6011 | 1.0351 | 0.9416 | 0.8054 | 0.9165 |
| 27 | 0.5286 | 0.7299 | 0.8163 | 0.3610           | 0.3484 | 0.4587 | 0.8008 | 0.7370 | 0.6125 | 0.7106 |
| 28 | 0.3229 | 0.4248 | 0.4716 | 0.2210           | 0.2059 | 0.2678 | 0.4743 | 0.4736 | 0.3775 | 0.4456 |
| 29 | 0.1743 | 0.2395 | 0.2427 | 0.1133           | 0.1103 | 0.1339 | 0.2260 | 0.2578 | 0.1986 | 0.2425 |
|    | 0.7690 | 1.0860 | 1.2168 | THIMBLE AVERAGE  |        | 0.6971 | 1.0686 | 1.0356 | 0.9370 | 1.0479 |
|    | 1.501  | 1.570  | 1.546  | AXIAL PEAK       |        | 1.516  | 1.747  | 1.624  | 1.510  | 1.550  |
|    | 1.154  | 1.705  | 1.881  | AVERAGE * PEAK   |        | 1.057  | 1.867  | 1.681  | 1.415  | 1.624  |
|    | -16.18 | -20.18 | -18.58 | AXIAL OFFSET (%) |        | -16.22 | -32.89 | -23.27 | -14.68 | -18.42 |

Diagram 2.4-2

Incore Power Distributions, Cycle 1  
350 MWD/MTU (1.13.73)

| 41 D10    | 42 G14 | 43 H13 | 44 C 8           | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|-----------|--------|--------|------------------|--------|--------|--------|--------|--------|--------|
| 1 0.1185  | 0.0934 | 0.0914 | 0.1010           | 0.0989 | 0.0942 | 0.1404 | 0.1119 | 0.1305 | 0.1603 |
| 2 0.2173  | 0.1698 | 0.1542 | 0.1530           | 0.1582 | 0.1655 | 0.2443 | 0.2152 | 0.2354 | 0.2515 |
| 3 0.3866  | 0.2887 | 0.2655 | 0.2656           | 0.2628 | 0.2797 | 0.4072 | 0.3787 | 0.3999 | 0.4173 |
| 4 0.5165  | 0.3850 | 0.3483 | 0.3464           | 0.3448 | 0.3625 | 0.5308 | 0.4935 | 0.5077 | 0.5444 |
| 5 0.6999  | 0.5067 | 0.4768 | 0.4879           | 0.4804 | 0.4995 | 0.7273 | 0.7058 | 0.7091 | 0.7406 |
| 6 0.8410  | 0.6029 | 0.5710 | 0.5803           | 0.5708 | 0.5937 | 0.8678 | 0.8550 | 0.8453 | 0.8815 |
| 7 0.9539  | 0.6793 | 0.6423 | 0.6669           | 0.6499 | 0.6736 | 0.9857 | 0.9726 | 0.9616 | 0.9976 |
| 8 1.0470  | 0.7359 | 0.7052 | 0.7304           | 0.7065 | 0.7364 | 1.0728 | 1.0615 | 1.0552 | 1.0888 |
| 9 1.0978  | 0.7586 | 0.7280 | 0.7535           | 0.7347 | 0.7678 | 1.1008 | 1.0759 | 1.0778 | 1.1109 |
| 10 1.3038 | 0.9030 | 0.8907 | 0.9238           | 0.8845 | 0.9362 | 1.3227 | 1.3025 | 1.3048 | 1.3264 |
| 11 1.4393 | 0.9879 | 1.0106 | 1.0537           | 1.0117 | 1.0760 | 1.4434 | 1.4316 | 1.4352 | 1.4453 |
| 12 1.5465 | 1.0558 | 1.1477 | 1.1981           | 1.1473 | 1.2187 | 1.5417 | 1.5234 | 1.5232 | 1.5337 |
| 13 1.6030 | 1.1011 | 1.2419 | 1.3049           | 1.2434 | 1.3129 | 1.5895 | 1.5837 | 1.5742 | 1.5779 |
| 14 1.5776 | 1.0756 | 1.2333 | 1.3107           | 1.2490 | 1.2987 | 1.5389 | 1.5378 | 1.5118 | 1.5503 |
| 15 1.7723 | 1.2341 | 1.4246 | 1.5041           | 1.4242 | 1.4956 | 1.7439 | 1.7529 | 1.7274 | 1.7382 |
| 16 1.8513 | 1.2879 | 1.4960 | 1.5878           | 1.4892 | 1.5784 | 1.8169 | 1.8362 | 1.8040 | 1.8073 |
| 17 1.8739 | 1.2964 | 1.5216 | 1.6080           | 1.5033 | 1.6126 | 1.8394 | 1.8648 | 1.8267 | 1.8266 |
| 18 1.8513 | 1.2822 | 1.5045 | 1.5936           | 1.4836 | 1.5955 | 1.8197 | 1.8534 | 1.8097 | 1.8073 |
| 19 1.6735 | 1.1719 | 1.3846 | 1.4608           | 1.3536 | 1.4528 | 1.6793 | 1.6755 | 1.6451 | 1.6663 |
| 20 1.7780 | 1.2681 | 1.4874 | 1.5618           | 1.4553 | 1.5613 | 1.8001 | 1.7960 | 1.7813 | 1.7879 |
| 21 1.7667 | 1.2624 | 1.4703 | 1.5590           | 1.4412 | 1.5470 | 1.7720 | 1.7845 | 1.7614 | 1.7741 |
| 22 1.6876 | 1.2143 | 1.4046 | 1.5012           | 1.3790 | 1.4928 | 1.6821 | 1.7099 | 1.6848 | 1.6940 |
| 23 1.5578 | 1.1181 | 1.2790 | 1.3828           | 1.2688 | 1.3786 | 1.5389 | 1.5722 | 1.5402 | 1.5447 |
| 24 1.2615 | 0.9171 | 1.0563 | 1.1346           | 1.0456 | 1.1131 | 1.2581 | 1.2738 | 1.2452 | 1.2795 |
| 25 1.2305 | 0.8888 | 1.0249 | 1.0970           | 1.0173 | 1.0932 | 1.2300 | 1.2509 | 1.2253 | 1.2242 |
| 26 1.0357 | 0.7586 | 0.8879 | 0.9238           | 0.8788 | 0.9248 | 1.0475 | 1.0558 | 1.0410 | 1.0307 |
| 27 0.7958 | 0.5859 | 0.6852 | 0.7131           | 0.6810 | 0.7107 | 0.8172 | 0.8177 | 0.7970 | 0.7959 |
| 28 0.4741 | 0.3595 | 0.4168 | 0.4330           | 0.4352 | 0.4281 | 0.4999 | 0.4935 | 0.4907 | 0.4643 |
| 29 0.2229 | 0.1981 | 0.2113 | 0.2367           | 0.2289 | 0.2226 | 0.2303 | 0.2266 | 0.2411 | 0.2294 |
| 1.2147    | 0.8586 | 0.9504 | THIMBLE AVERAGE  |        | 1.0023 | 1.2180 | 1.2158 | 1.2038 | 1.2179 |
| 1.543     | 1.510  | 1.601  | AXIAL PEAK       |        | 1.609  | 1.510  | 1.534  | 1.517  | 1.500  |
| 1.874     | 1.296  | 1.522  | AVERAGE * PEAK   |        | 1.613  | 1.839  | 1.865  | 1.827  | 1.827  |
| -16.64    | -17.53 | -23.54 | AXIAL OFFSET (%) |        | -23.63 | -16.05 | -17.34 | -16.51 | -15.46 |

REACTOR: Turkey Point 3

Table 2.4 PWR Operating Data

Sheet 2 of 6

CYCLE: 1

Part B - PWR Statepoint

EXPOSURE: 3,000 MWD/MTU (6/28/73)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                    | VALUE                                   | SOURCE               | COMMENTS                                           |
|------------------------------------------------|-----------------------------------------|----------------------|----------------------------------------------------|
| <u>PWR Statepoint Data</u>                     |                                         |                      |                                                    |
| 1. Core power (Mwt)                            | 1804                                    | NCCO log sheets      | 82% power                                          |
| 2. Total core flow ( $10^6$ lbs/hr)            | 99.5                                    | Idem                 | 98% flow                                           |
| 3. System pressure (psia)                      | 2250.                                   | Idem                 | none                                               |
| 4. Soluble poison concentration (ppm)          | 747.                                    | Daily Water Report   | none                                               |
| 5. Inlet temperature ( $^{\circ}$ F)           | 541.                                    | NCCO log sheet.      | $T_{ave} = 565.$ log sheet data<br>$\Delta T = 47$ |
| 6. Time at associated power level (hrs)        | at least 72 hours                       | Idem                 | none                                               |
| 7. Xenon condition                             | equilibrium                             | Inferred from item 6 | none                                               |
| 8. Control rod positions (by location)         | all rods out except bank D at 201 steps | NCCO log sheet       | 228 steps is fully withdrawn position              |
| 9. Inter-calibrated data from incore traverses | see attached                            | FP&L records         | Diagram #2.4-3 attached                            |
|                                                |                                         |                      |                                                    |
| Verified By: <u>BZP</u> Date: <u>7/14/76</u>   |                                         |                      |                                                    |

Diagram 2.4-3

Incore Power Distribution, Cycle 1  
3000 MWD/MTU (6/28/73)

|    | 1 M 3            | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.1285           | 0.1159 | 0.2558 | 0.2286 | 0.1418 | 0.0000 | 0.0000 | 0.0000 | 0.2433 | 0.1193 |
| 2  | 0.2152           | 0.2103 | 0.4883 | 0.3777 | 0.3260 | 0.0000 | 0.0000 | 0.0000 | 0.4678 | 0.2187 |
| 3  | 0.2987           | 0.2840 | 0.6604 | 0.5606 | 0.6568 | 0.0000 | 0.0000 | 0.0000 | 0.6166 | 0.2929 |
| 4  | 0.3983           | 0.3792 | 0.8883 | 0.7340 | 0.9639 | 0.0000 | 0.0000 | 0.0000 | 0.8529 | 0.3908 |
| 5  | 0.4834           | 0.4544 | 1.0604 | 0.9744 | 1.1766 | 0.0000 | 0.0000 | 0.0000 | 1.0230 | 0.4689 |
| 6  | 0.5444           | 0.5005 | 1.1720 | 1.1044 | 1.3230 | 0.0000 | 0.0000 | 0.0000 | 1.1411 | 0.5224 |
| 7  | 0.5781           | 0.5274 | 1.2604 | 1.2030 | 1.4152 | 0.0000 | 0.0000 | 0.0000 | 1.2238 | 0.5553 |
| 8  | 0.5878           | 0.5350 | 1.2883 | 1.2391 | 1.4412 | 0.0000 | 0.0000 | 0.0000 | 1.2474 | 0.5668 |
| 9  | 0.6143           | 0.5657 | 1.3417 | 1.2872 | 1.4837 | 0.0000 | 0.0000 | 0.0000 | 1.3065 | 0.6042 |
| 10 | 0.6520           | 0.5972 | 1.4231 | 1.3714 | 1.5735 | 0.0000 | 0.0000 | 0.0000 | 1.3868 | 0.6364 |
| 11 | 0.6665           | 0.6118 | 1.4673 | 1.4075 | 1.6065 | 0.0000 | 0.0000 | 0.0000 | 1.4246 | 0.6547 |
| 12 | 0.6755           | 0.6172 | 1.4743 | 1.4195 | 1.6254 | 0.0000 | 0.0000 | 0.0000 | 1.4317 | 0.6585 |
| 13 | 0.6665           | 0.6087 | 1.4464 | 1.4027 | 1.6018 | 0.0000 | 0.0000 | 0.0000 | 1.4128 | 0.6448 |
| 14 | 0.6584           | 0.6041 | 1.4138 | 1.3642 | 1.5664 | 0.0000 | 0.0000 | 0.0000 | 1.3727 | 0.6394 |
| 15 | 0.6873           | 0.6310 | 1.4743 | 1.4412 | 1.6325 | 0.0000 | 0.0000 | 0.0000 | 1.4364 | 0.6624 |
| 16 | 0.7026           | 0.6417 | 1.4929 | 1.4580 | 1.6514 | 0.0000 | 0.0000 | 0.0000 | 1.4483 | 0.6708 |
| 17 | 0.7026           | 0.6394 | 1.4813 | 1.4508 | 1.6491 | 0.0000 | 0.0000 | 0.0000 | 1.4435 | 0.6685 |
| 18 | 0.6761           | 0.6156 | 1.4441 | 1.4051 | 1.6018 | 0.0000 | 0.0000 | 0.0000 | 1.4081 | 0.6432 |
| 19 | 0.6424           | 0.5918 | 1.3813 | 1.3353 | 1.5191 | 0.0000 | 0.0000 | 0.0000 | 1.3419 | 0.6203 |
| 20 | 0.6524           | 0.6041 | 1.4441 | 1.3955 | 1.5900 | 0.0000 | 0.0000 | 0.0000 | 1.3892 | 0.6371 |
| 21 | 0.6524           | 0.6018 | 1.4324 | 1.3979 | 1.5829 | 0.0000 | 0.0000 | 0.0000 | 1.3845 | 0.6318 |
| 22 | 0.6263           | 0.5796 | 1.3859 | 1.3594 | 1.5309 | 0.0000 | 0.0000 | 0.0000 | 1.3538 | 0.6065 |
| 23 | 0.5822           | 0.5389 | 1.2883 | 1.2607 | 1.4341 | 0.0000 | 0.0000 | 0.0000 | 1.2687 | 0.5591 |
| 24 | 0.5147           | 0.4775 | 1.1208 | 1.0683 | 1.2356 | 0.0000 | 0.0000 | 0.0000 | 1.1057 | 0.4979 |
| 25 | 0.4954           | 0.4567 | 1.0976 | 1.0586 | 1.2427 | 0.0000 | 0.0000 | 0.0000 | 1.0821 | 0.4864 |
| 26 | 0.4280           | 0.3969 | 0.9581 | 0.9287 | 1.0868 | 0.0000 | 0.0000 | 0.0000 | 0.9521 | 0.4138 |
| 27 | 0.3318           | 0.3026 | 0.7488 | 0.7362 | 0.8458 | 0.0000 | 0.0000 | 0.0000 | 0.7513 | 0.3212 |
| 28 | 0.2048           | 0.1934 | 0.4814 | 0.4740 | 0.5387 | 0.0000 | 0.0000 | 0.0000 | 0.4678 | 0.1996 |
| 29 | 0.1124           | 0.1075 | 0.2372 | 0.2695 | 0.2646 | 0.0000 | 0.0000 | 0.0000 | 0.2315 | 0.1073 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 0.5375           | 0.4959 | 1.1737 | 1.1259 | 1.2895 | 1.0000 | 1.0000 | 1.0000 | 1.1421 | 0.5209 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.307            | 1.294  | 1.272  | 1.295  | 1.281  | 0.000  | 0.000  | 0.000  | 1.268  | 1.288  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 0.703            | 0.642  | 1.493  | 1.458  | 1.651  | 0.000  | 0.000  | 0.000  | 1.448  | 0.671  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | -1.09            | -1.05  | -1.10  | -2.67  | -2.24  | 1.00   | 1.00   | 1.00   | -1.51  | -0.66  |

NOTE: See Diagram 2.2-3 for location of incore detectors.

Diagram 2.4-3

Incore Power Distribution, Cycle 1  
3000 MWD/MTU (6/28/73)

|    | 11 L 9 | 12 B10 | 13 L 4 | 14 F13           | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|----|--------|--------|--------|------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.0000 | 0.1512 | 0.2090 | 0.2048           | 0.2602 | 0.0000 | 0.1998 | 0.0000 | 0.2781 | 0.3059 |
| 2  | 0.0000 | 0.2883 | 0.3809 | 0.3734           | 0.4890 | 0.0000 | 0.3408 | 0.0000 | 0.4884 | 0.4165 |
| 3  | 0.0000 | 0.3953 | 0.5156 | 0.5107           | 0.7058 | 0.0000 | 0.4512 | 0.0000 | 0.6870 | 0.6589 |
| 4  | 0.0000 | 0.5348 | 0.7014 | 0.6938           | 0.9419 | 0.0000 | 0.6228 | 0.0000 | 0.9558 | 0.9059 |
| 5  | 0.0000 | 0.6372 | 0.8408 | 0.8359           | 1.1563 | 0.0000 | 0.7403 | 0.0000 | 1.1661 | 1.1295 |
| 6  | 0.0000 | 0.7116 | 0.9337 | 0.9443           | 1.3081 | 0.0000 | 0.8226 | 0.0000 | 1.3180 | 1.2942 |
| 7  | 0.0000 | 0.7604 | 0.9987 | 1.0118           | 1.4092 | 0.0000 | 0.8743 | 0.0000 | 1.4185 | 1.4048 |
| 8  | 0.0000 | 0.7813 | 1.0242 | 1.0358           | 1.4526 | 0.0000 | 0.8884 | 0.0000 | 1.4419 | 1.4589 |
| 9  | 0.0000 | 0.8185 | 1.0939 | 1.0720           | 1.5008 | 0.0000 | 0.9330 | 0.0000 | 1.4933 | 1.4518 |
| 10 | 0.0000 | 0.8581 | 1.1241 | 1.1442           | 1.5947 | 0.0000 | 0.9800 | 0.0000 | 1.5867 | 1.5765 |
| 11 | 0.0000 | 0.8767 | 1.1543 | 1.1756           | 1.6381 | 0.0000 | 1.0059 | 0.0000 | 1.6335 | 1.6307 |
| 12 | 0.0000 | 0.8860 | 1.1659 | 1.1876           | 1.6453 | 0.0000 | 1.0106 | 0.0000 | 1.6452 | 1.6471 |
| 13 | 0.0000 | 0.8743 | 1.1450 | 1.1804           | 1.6212 | 0.0000 | 1.0035 | 0.0000 | 1.6171 | 1.6307 |
| 14 | 0.0000 | 0.8650 | 1.1427 | 1.1563           | 1.5730 | 0.0000 | 0.9918 | 0.0000 | 1.5751 | 1.5530 |
| 15 | 0.0000 | 0.8999 | 1.1938 | 1.2117           | 1.6501 | 0.0000 | 1.0388 | 0.0000 | 1.6569 | 1.6471 |
| 16 | 0.0000 | 0.9116 | 1.2124 | 1.2286           | 1.6790 | 0.0000 | 1.0552 | 0.0000 | 1.6756 | 1.6613 |
| 17 | 0.0000 | 0.9069 | 1.2031 | 1.2310           | 1.6790 | 0.0000 | 1.0458 | 0.0000 | 1.6756 | 1.6613 |
| 18 | 0.0000 | 0.8836 | 1.1659 | 1.1996           | 1.6260 | 0.0000 | 1.0129 | 0.0000 | 1.6335 | 1.6236 |
| 19 | 0.0000 | 0.8464 | 1.1195 | 1.1370           | 1.5417 | 0.0000 | 0.9753 | 0.0000 | 1.5283 | 1.5177 |
| 20 | 0.0000 | 0.8743 | 1.1636 | 1.1852           | 1.5899 | 0.0000 | 1.0082 | 0.0000 | 1.5938 | 1.6071 |
| 21 | 0.0000 | 0.8650 | 1.1613 | 1.1852           | 1.5851 | 0.0000 | 0.9988 | 0.0000 | 1.5844 | 1.5930 |
| 22 | 0.0000 | 0.8325 | 1.0986 | 1.1467           | 1.5489 | 0.0000 | 0.9612 | 0.0000 | 1.5353 | 1.5412 |
| 23 | 0.0000 | 0.7720 | 1.0312 | 1.0672           | 1.4357 | 0.0000 | 0.8978 | 0.0000 | 1.4419 | 1.4471 |
| 24 | 0.0000 | 0.6837 | 0.8895 | 0.9178           | 1.2526 | 0.0000 | 0.7944 | 0.0000 | 1.2409 | 1.2706 |
| 25 | 0.0000 | 0.6627 | 0.8408 | 0.8913           | 1.2286 | 0.0000 | 0.7685 | 0.0000 | 1.2479 | 1.2471 |
| 26 | 0.0000 | 0.5767 | 0.7479 | 0.7709           | 1.0840 | 0.0000 | 0.6628 | 0.0000 | 1.0843 | 1.0895 |
| 27 | 0.0000 | 0.4465 | 0.5853 | 0.6095           | 0.8600 | 0.0000 | 0.5241 | 0.0000 | 0.8576 | 0.8542 |
| 28 | 0.0000 | 0.2837 | 0.3646 | 0.3927           | 0.5661 | 0.0000 | 0.3408 | 0.0000 | 0.5538 | 0.5294 |
| 29 | 0.0000 | 0.1628 | 0.1928 | 0.2168           | 0.3035 | 0.0000 | 0.1951 | 0.0000 | 0.2758 | 0.2588 |
|    | 1.0000 | 0.7104 | 0.9357 | THIMBLE AVERAGE  |        | 1.0000 | 0.8195 | 1.0000 | 1.3076 | 1.2975 |
|    |        |        |        | 0.9538           | 1.3087 |        |        |        |        |        |
|    | 0.000  | 1.283  | 1.296  | AXIAL PEAK       |        | 0.000  | 1.288  | 0.000  | 1.281  | 1.280  |
|    |        |        |        | 1.291            | 1.283  |        |        |        |        |        |
|    | 0.000  | 0.912  | 1.212  | AVERAGE * PEAK   |        | 0.000  | 1.055  | 0.000  | 1.676  | 1.661  |
|    |        |        |        | 1.231            | 1.679  |        |        |        |        |        |
|    | 1.00   | -1.33  | -1.35  | AXIAL OFFSET (%) |        | 1.00   | -1.65  | 1.00   | -1.71  | -2.37  |
|    |        |        |        | -2.42            | -1.81  |        |        |        |        |        |

Diagram 2.4-3

Incore Power Distribution, Cycle 1  
3000 MWD/MTU (6/28/73)

|    | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2369 | 0.1770 | 0.2383 | 0.2710 | 0.2261 | 0.2235 | 0.1217 | 0.3173 | 0.1953 | 0.1294 |
| 2  | 0.4273 | 0.3091 | 0.4436 | 0.4683 | 0.4359 | 0.4000 | 0.2192 | 0.5405 | 0.3651 | 0.2000 |
| 3  | 0.5853 | 0.4177 | 0.6088 | 0.6822 | 1.7531 | 0.5247 | 0.2932 | 0.7286 | 0.5186 | 0.2808 |
| 4  | 0.7827 | 0.5640 | 0.8212 | 0.9223 | 0.7903 | 0.7177 | 0.3900 | 1.0012 | 0.7604 | 0.3694 |
| 5  | 0.9522 | 0.6772 | 1.0005 | 1.1053 | 0.9465 | 0.8542 | 0.4664 | 1.2080 | 0.9418 | 0.4455 |
| 6  | 1.0777 | 0.7575 | 1.1279 | 1.2741 | 1.0467 | 0.9506 | 0.5210 | 1.3514 | 1.0627 | 0.4981 |
| 7  | 1.1473 | 0.8094 | 1.2058 | 1.3692 | 1.1143 | 1.0212 | 0.5537 | 1.4524 | 1.1418 | 0.5318 |
| 8  | 1.1659 | 0.8235 | 1.2247 | 1.4119 | 1.1353 | 1.0353 | 0.5779 | 1.4759 | 1.2813 | 0.5428 |
| 9  | 1.2263 | 0.8660 | 1.2695 | 1.4642 | 1.1366 | 1.0942 | 0.5951 | 1.5276 | 1.2092 | 0.5710 |
| 10 | 1.2937 | 0.9132 | 1.3403 | 1.5712 | 1.2519 | 1.1530 | 0.6302 | 1.5934 | 1.2650 | 0.6000 |
| 11 | 1.3215 | 0.9415 | 1.3851 | 1.6164 | 1.2869 | 1.1883 | 0.6473 | 1.6193 | 1.3022 | 0.6134 |
| 12 | 1.3262 | 0.9557 | 1.3969 | 1.6259 | 1.2985 | 1.2001 | 0.6559 | 1.6240 | 1.3115 | 0.6181 |
| 13 | 1.3053 | 0.9462 | 1.3875 | 1.6021 | 1.2775 | 1.1765 | 0.6465 | 1.6099 | 1.2883 | 0.6102 |
| 14 | 1.2937 | 0.9250 | 1.3521 | 1.5237 | 1.2519 | 1.1695 | 0.6302 | 1.5864 | 1.2883 | 0.6079 |
| 15 | 1.3517 | 0.9651 | 1.4111 | 1.6021 | 1.3242 | 1.2024 | 0.6606 | 1.6639 | 1.3557 | 0.6314 |
| 16 | 1.3633 | 0.9840 | 1.4182 | 1.6187 | 1.3451 | 1.2118 | 0.6699 | 1.6780 | 1.3743 | 0.6392 |
| 17 | 1.3587 | 0.9816 | 1.4111 | 1.6187 | 1.3451 | 1.2001 | 0.6684 | 1.6686 | 1.3557 | 0.6261 |
| 18 | 1.3099 | 0.9557 | 1.3804 | 1.5878 | 1.3125 | 1.1695 | 0.6442 | 1.6193 | 1.3069 | 0.6102 |
| 19 | 1.2611 | 0.9014 | 1.3049 | 1.5165 | 1.2426 | 1.1295 | 0.6107 | 1.5488 | 1.2604 | 0.6000 |
| 20 | 1.3076 | 0.9415 | 1.3686 | 1.5617 | 1.2985 | 1.1553 | 0.6302 | 1.6028 | 1.2952 | 0.6157 |
| 21 | 1.3006 | 0.9368 | 1.3686 | 1.5546 | 1.2938 | 1.1530 | 0.6286 | 1.5981 | 1.2836 | 0.6118 |
| 22 | 1.2565 | 0.9132 | 1.3356 | 1.4999 | 1.2496 | 1.1177 | 0.6107 | 1.5417 | 1.2371 | 0.5883 |
| 23 | 1.1659 | 0.8424 | 1.2388 | 1.3977 | 1.1586 | 1.0471 | 0.5639 | 1.4454 | 1.1441 | 0.5451 |
| 24 | 1.0266 | 0.7244 | 1.0571 | 1.2265 | 0.9954 | 0.9177 | 0.4906 | 1.2644 | 1.0162 | 0.4800 |
| 25 | 0.9824 | 0.7126 | 1.0477 | 1.2075 | 1.0071 | 0.8942 | 0.4757 | 1.2432 | 0.9627 | 0.4628 |
| 26 | 0.8640 | 0.6182 | 0.9156 | 1.0601 | 0.8929 | 0.7765 | 0.4149 | 1.0952 | 0.8325 | 0.4016 |
| 27 | 0.6782 | 0.4861 | 0.7150 | 0.8415 | 0.7040 | 0.6071 | 0.3182 | 0.8743 | 0.6674 | 0.3200 |
| 28 | 0.4250 | 0.3115 | 0.4554 | 0.5491 | 0.4476 | 0.3953 | 0.1973 | 0.5640 | 0.4279 | 0.2157 |
| 29 | 0.2369 | 0.1817 | 0.2548 | 0.2947 | 0.2191 | 0.2118 | 0.1115 | 0.2820 | 0.2302 | 0.1255 |

|        |        |        |                 |        |        |        |        |        |        |        |
|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| 1.0641 | 0.7629 | 1.1157 | THIMBLE AVERAGE | 1.2772 | 1.0934 | 0.9529 | 0.5188 | 1.3223 | 1.0524 | 0.4991 |
|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|

|       |       |       |            |       |       |       |       |       |       |       |
|-------|-------|-------|------------|-------|-------|-------|-------|-------|-------|-------|
| 1.281 | 1.290 | 1.271 | AXIAL PEAK | 1.273 | 1.603 | 1.272 | 1.291 | 1.269 | 1.306 | 1.281 |
|-------|-------|-------|------------|-------|-------|-------|-------|-------|-------|-------|

|       |       |       |                |       |       |       |       |       |       |       |
|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.363 | 0.984 | 1.418 | AVERAGE * PEAK | 1.626 | 1.753 | 1.212 | 0.670 | 1.678 | 1.374 | 0.639 |
|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|

|       |       |       |                  |       |      |       |       |       |       |       |
|-------|-------|-------|------------------|-------|------|-------|-------|-------|-------|-------|
| -1.33 | -1.90 | -1.48 | AXIAL OFFSET (%) | -1.72 | 1.59 | -1.06 | -0.63 | -1.10 | -1.51 | -1.69 |
|-------|-------|-------|------------------|-------|------|-------|-------|-------|-------|-------|

Diagram 2.4-3

Incore Power Distribution, Cycle 1  
3000 MWD/MTU (6/28/73)

|    | 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9                    | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|----|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.1551 | 0.2358 | 0.0000 | 0.0449                    | 0.0000 | 0.1442 | 0.1259 | 0.2438 | 0.2330 | 0.2820 |
| 2  | 0.2726 | 0.4235 | 0.0000 | 0.2051                    | 0.0000 | 0.2837 | 0.2541 | 0.3831 | 0.3752 | 0.4348 |
| 3  | 0.3936 | 0.6039 | 0.0000 | 0.2786                    | 0.0000 | 0.3535 | 0.3707 | 0.5712 | 0.5173 | 0.5922 |
| 4  | 0.5320 | 0.8325 | 0.0000 | 0.3730                    | 0.0000 | 0.4697 | 0.7460 | 0.7778 | 0.6991 | 0.8014 |
| 5  | 0.6370 | 1.0129 | 0.0000 | 0.4504                    | 0.0000 | 0.5627 | 1.0700 | 0.9543 | 0.8366 | 0.9612 |
| 6  | 0.7109 | 1.1404 | 0.0000 | 0.5038                    | 0.0000 | 0.6209 | 1.2216 | 1.0866 | 0.9321 | 1.0787 |
| 7  | 0.7562 | 1.2415 | 0.0000 | 0.5379                    | 0.0000 | 0.6558 | 1.3218 | 1.1679 | 1.1162 | 1.1539 |
| 8  | 0.7753 | 1.2656 | 0.0000 | 0.5557                    | 0.0000 | 0.6651 | 1.3451 | 1.2027 | 1.0137 | 1.1751 |
| 9  | 0.8040 | 1.3257 | 0.0000 | 0.5727                    | 0.0000 | 0.6837 | 1.3848 | 1.2538 | 1.0719 | 1.2244 |
| 10 | 0.8612 | 1.4075 | 0.0000 | 0.6021                    | 0.0000 | 0.7232 | 1.4664 | 1.3258 | 1.1302 | 1.2926 |
| 11 | 0.8922 | 1.4388 | 0.0000 | 0.6161                    | 0.0000 | 0.7441 | 1.5130 | 1.3653 | 1.1628 | 1.3349 |
| 12 | 0.8970 | 1.4460 | 0.0000 | 0.6207                    | 0.0000 | 0.7488 | 1.5200 | 1.3745 | 1.1651 | 1.3443 |
| 13 | 0.8898 | 1.4340 | 0.0000 | 0.6176                    | 0.0000 | 0.7395 | 1.4943 | 1.3583 | 1.1535 | 1.3161 |
| 14 | 0.8588 | 1.3907 | 0.0000 | 0.6114                    | 0.0000 | 0.7371 | 1.4547 | 1.3420 | 1.1418 | 1.3043 |
| 15 | 0.8946 | 1.4580 | 0.0000 | 0.6377                    | 0.0000 | 0.7720 | 1.5200 | 1.4094 | 1.1908 | 1.3678 |
| 16 | 0.9113 | 1.4773 | 0.0000 | 0.6424                    | 0.0000 | 0.7837 | 1.5363 | 1.4349 | 1.2094 | 1.3866 |
| 17 | 0.9137 | 1.4773 | 0.0000 | 0.6346                    | 0.0000 | 0.7837 | 1.5340 | 1.4163 | 1.2024 | 1.3796 |
| 18 | 0.8970 | 1.4364 | 0.0000 | 0.6114                    | 0.0000 | 0.7604 | 1.4943 | 1.3560 | 1.1651 | 1.3349 |
| 19 | 0.8850 | 1.3618 | 0.0000 | 0.5882                    | 0.0000 | 0.7302 | 1.4314 | 1.2910 | 1.1069 | 1.2667 |
| 20 | 0.8755 | 1.4099 | 0.0000 | 0.6137                    | 0.0000 | 0.7604 | 1.4780 | 1.3420 | 1.1395 | 1.3165 |
| 21 | 0.8755 | 1.4099 | 0.0000 | 0.6153                    | 0.0000 | 0.7534 | 1.4757 | 1.3281 | 1.1302 | 1.3138 |
| 22 | 0.8660 | 1.3738 | 0.0000 | 0.5998                    | 0.0000 | 0.7278 | 1.4361 | 1.3119 | 1.0952 | 1.2644 |
| 23 | 0.8111 | 1.2680 | 0.0000 | 0.5572                    | 0.0000 | 0.6790 | 1.3405 | 1.1961 | 1.0277 | 1.1774 |
| 24 | 0.6799 | 1.0351 | 0.0000 | 0.4876                    | 0.0000 | 0.5976 | 1.1633 | 1.0472 | 0.8669 | 1.0082 |
| 25 | 0.6823 | 1.0731 | 0.0000 | 0.4760                    | 0.0000 | 0.5813 | 1.1470 | 1.0216 | 0.8878 | 0.9988 |
| 26 | 0.6060 | 0.9311 | 0.0000 | 0.4102                    | 0.0000 | 0.5139 | 1.0001 | 0.8939 | 0.7737 | 0.8696 |
| 27 | 0.4891 | 0.7218 | 0.0000 | 0.3212                    | 0.0000 | 0.4000 | 0.7903 | 0.7082 | 0.6059 | 0.6886 |
| 28 | 0.3221 | 0.4716 | 0.0000 | 0.2028                    | 0.0000 | 0.2488 | 0.5105 | 0.4690 | 0.4148 | 0.4512 |
| 29 | 0.1789 | 0.2671 | 0.0000 | 0.1122                    | 0.0000 | 0.1302 | 0.2541 | 0.2809 | 0.2354 | 0.2585 |
|    | 0.7181 | 1.1489 | 1.0000 | THIMBLE AVERAGE<br>0.5008 | 1.0000 | 0.6149 | 1.1861 | 1.0948 | 0.9416 | 1.0754 |
|    | 1.272  | 1.286  | 0.000  | AXIAL PEAK<br>1.283       | 0.000  | 1.274  | 1.295  | 1.311  | 1.284  | 1.289  |
|    | 0.914  | 1.477  | 0.000  | AVERAGE * PEAK<br>0.642   | 0.000  | 0.784  | 1.536  | 1.435  | 1.209  | 1.387  |
|    | -2.47  | -1.71  | 1.00   | AXIAL OFFSET (%)<br>-1.77 | 1.00   | -1.89  | -3.73  | -2.20  | -1.18  | -1.44  |

Diagram 2.4-3

Incore Power Distribution, Cycle 1  
3000 MWD/MTU (6/28/73)

|    | 41 D10 | 42 G14 | 43 H13 | 44 C 8           | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|----|--------|--------|--------|------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2543 | 0.1866 | 0.1675 | 0.1855           | 0.2024 | 0.1890 | 0.3012 | 0.2578 | 0.2670 | 0.0000 |
| 2  | 0.4802 | 0.3260 | 0.3327 | 0.2264           | 0.3130 | 0.3544 | 0.4683 | 0.4143 | 0.4938 | 0.0000 |
| 3  | 0.6537 | 0.4418 | 0.4704 | 0.4143           | 0.4683 | 0.5127 | 0.6541 | 0.6432 | 0.6615 | 0.0000 |
| 4  | 0.8961 | 0.5977 | 0.6723 | 0.5637           | 0.6894 | 0.7159 | 0.8424 | 0.8263 | 0.8954 | 0.0000 |
| 5  | 1.0744 | 0.7135 | 0.8444 | 0.7974           | 0.8565 | 0.8812 | 1.0424 | 1.0455 | 1.0584 | 0.0000 |
| 6  | 1.2004 | 0.7962 | 0.9477 | 0.9563           | 0.9718 | 0.9946 | 1.1742 | 1.1852 | 1.1766 | 0.0000 |
| 7  | 1.2812 | 0.8482 | 1.0257 | 1.0551           | 1.0424 | 1.0702 | 1.2612 | 1.2767 | 1.2522 | 0.0000 |
| 8  | 1.3121 | 0.8694 | 1.0509 | 1.1105           | 1.0424 | 1.0986 | 1.3083 | 1.3177 | 1.2923 | 0.0000 |
| 9  | 1.3739 | 0.9049 | 1.1083 | 1.1129           | 1.1153 | 1.1577 | 1.3130 | 1.3056 | 1.3490 | 0.0000 |
| 10 | 1.4785 | 0.9639 | 1.1656 | 1.2117           | 1.1718 | 1.2285 | 1.4259 | 1.4333 | 1.4364 | 0.0000 |
| 11 | 1.4904 | 0.9852 | 1.1955 | 1.2575           | 1.2118 | 1.2592 | 1.4730 | 1.4791 | 1.4742 | 0.0000 |
| 12 | 1.4951 | 0.9899 | 1.2024 | 1.2719           | 1.2212 | 1.2687 | 1.4848 | 1.4984 | 1.4837 | 0.0000 |
| 13 | 1.4880 | 0.9852 | 1.1978 | 1.2695           | 1.1718 | 1.2474 | 1.4730 | 1.4935 | 1.4601 | 0.0000 |
| 14 | 1.4476 | 0.9667 | 1.1817 | 1.2141           | 1.2165 | 1.2120 | 1.4071 | 1.4140 | 1.4128 | 0.0000 |
| 15 | 1.5355 | 1.0159 | 1.2368 | 1.2984           | 1.2471 | 1.2734 | 1.4824 | 1.5200 | 1.4837 | 0.0000 |
| 16 | 1.5498 | 1.0230 | 1.2597 | 1.3225           | 1.2471 | 1.2947 | 1.5036 | 1.5441 | 1.4955 | 0.0000 |
| 17 | 1.5498 | 1.0159 | 1.2414 | 1.3225           | 1.2330 | 1.2923 | 1.5036 | 1.5465 | 1.4884 | 0.0000 |
| 18 | 1.5023 | 0.9923 | 1.2024 | 1.2864           | 1.1718 | 1.2522 | 1.4754 | 1.5176 | 1.4601 | 0.0000 |
| 19 | 1.4191 | 0.9403 | 1.1656 | 1.1900           | 1.1695 | 1.2049 | 1.3789 | 1.3924 | 1.3656 | 0.0000 |
| 20 | 1.4666 | 0.9852 | 1.2024 | 1.2599           | 1.1742 | 1.2356 | 1.4565 | 1.4285 | 1.4364 | 0.0000 |
| 21 | 1.4619 | 0.9876 | 1.2001 | 1.2599           | 1.1695 | 1.2285 | 1.4424 | 1.4285 | 1.4341 | 0.0000 |
| 22 | 1.4215 | 0.9639 | 1.1611 | 1.2310           | 1.1201 | 1.2002 | 1.3859 | 1.4213 | 1.3797 | 0.0000 |
| 23 | 1.3287 | 0.9143 | 1.0670 | 1.1515           | 1.0377 | 1.1293 | 1.2942 | 1.3416 | 1.2947 | 0.0000 |
| 24 | 1.1624 | 0.7631 | 0.9293 | 0.9853           | 0.9553 | 0.9663 | 1.1130 | 1.1491 | 1.1057 | 0.0000 |
| 25 | 1.1338 | 0.7702 | 0.9132 | 0.9708           | 0.8918 | 0.9545 | 1.1130 | 1.1322 | 1.1057 | 0.0000 |
| 26 | 0.9865 | 0.6781 | 0.8100 | 0.8407           | 0.7765 | 0.8340 | 0.9789 | 0.9973 | 0.9639 | 0.0000 |
| 27 | 0.1702 | 0.5292 | 0.6379 | 0.6600           | 0.6024 | 0.6521 | 0.7718 | 0.7757 | 0.7702 | 0.0000 |
| 28 | 0.4802 | 0.3497 | 0.4199 | 0.4143           | 0.3835 | 0.4205 | 0.4847 | 0.4746 | 0.4914 | 0.0000 |
| 29 | 0.2496 | 0.1985 | 0.2363 | 0.2264           | 0.2212 | 0.2315 | 0.2353 | 0.2409 | 0.2552 | 0.0000 |
|    | 1.2033 | 0.8040 | 0.9658 | THIMBLE AVERAGE  |        | 1.0054 | 1.1779 | 1.1876 | 1.1779 | 1.0000 |
|    |        |        |        | 0.9950           | 0.9601 |        |        |        |        |        |
|    | 1.288  | 1.272  | 1.304  | AXIAL PEAK       |        | 1.288  | 1.277  | 1.302  | 1.270  | 0.000  |
|    |        |        |        | 1.329            | 1.299  |        |        |        |        |        |
|    | 1.550  | 1.023  | 1.260  | AVERAGE * PEAK   |        | 1.295  | 1.504  | 1.547  | 1.496  | 0.000  |
|    |        |        |        | 1.323            | 1.247  |        |        |        |        |        |
|    | -1.66  | -2.35  | -3.14  | AXIAL OFFSET (%) |        | -2.43  | -1.64  | -2.43  | -1.03  | 1.00   |
|    |        |        |        | -5.22            | -1.67  |        |        |        |        |        |

REACTOR: Turkey Point 3

CYCLE: 1

TABLE 2.2  
PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 2

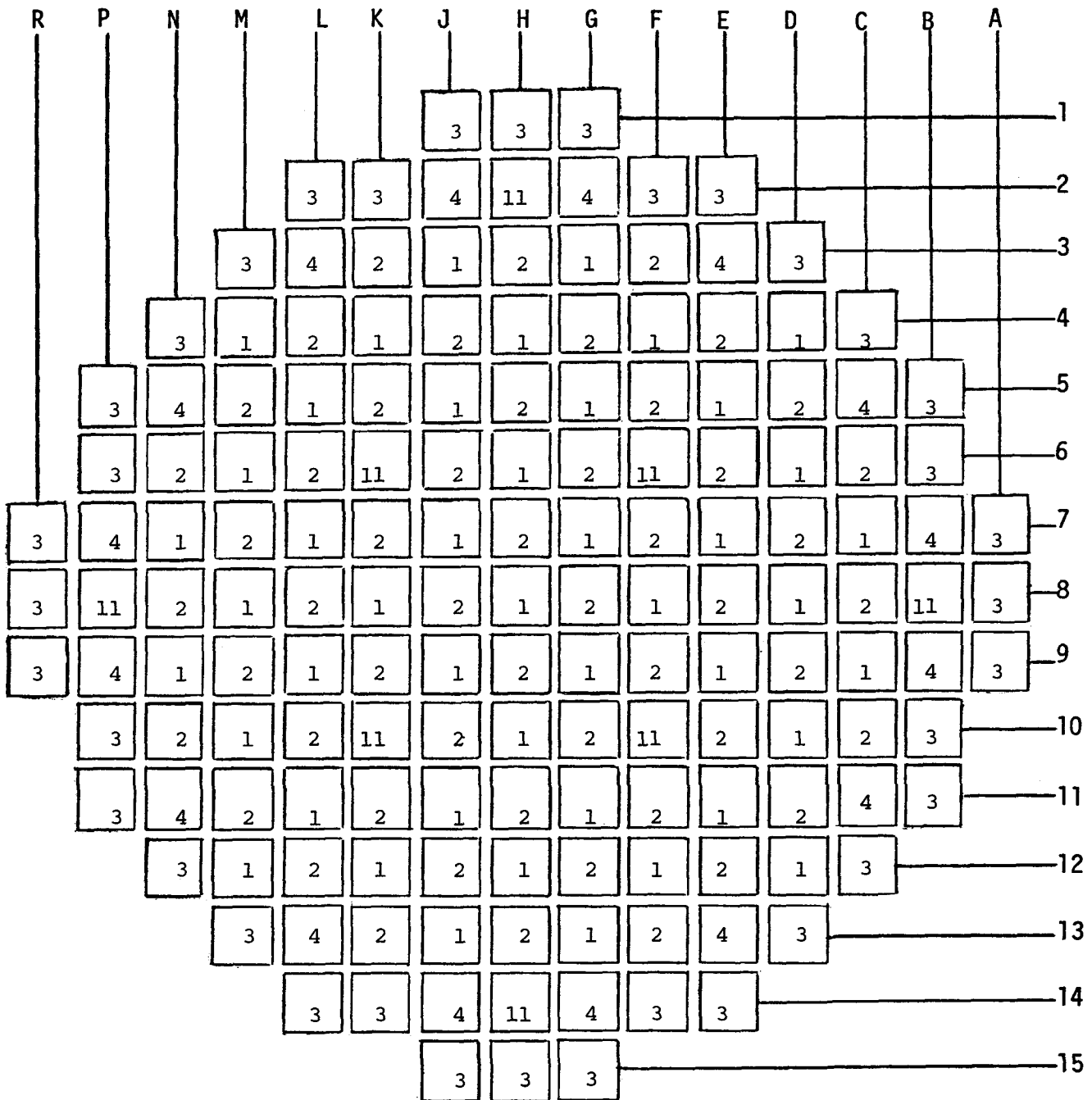
Rev. 0 Date: 4/26/76

| ITEM (Unit)                                     | VALUE                                | SOURCE                         | COMMENTS               |
|-------------------------------------------------|--------------------------------------|--------------------------------|------------------------|
| 1.0 <u>Core</u>                                 |                                      |                                |                        |
| 1.1 Total number of fuel assemblies             | 157                                  | FSAR Table 1.4-1               | none                   |
| 1.2 Number of fuel assembly types*              | 5                                    | FSAR Figures 3.2.1-1,7;3.2.3-3 | none                   |
| 1.3 Location of individual assemblies           | see diagram                          | idem                           | Diagram 2.2-1 attached |
| 1.4 Number of fuel assemblies of each type      | 1=45    4=16    2=52<br>11=8    3=36 | idem                           | none                   |
| 1.5 Total number of control elements (clusters) | 53                                   | FSAR Table 1.4-1               | none                   |
| 1.6 Number of control element types             | 2                                    | FSAR Table 3.2.1-1             | none                   |
| 1.7 Number of control elements of each type     | 45 full length<br>8 part length      | idem                           | none                   |

\* The term "fuel assembly type" is defined by the combination of fuel enrichment, burnable poison and control rod type as used in the EPRI-NODE code. Fuel type number assignments are redefined for each cycle.

Verified By: BZT Date: 5/24/76

Diagram 2.2-1  
Fuel Assembly Type Locations



45 Fuel Type 1 assemblies = region 1 1.86  
 52 Fuel Type 2 assemblies = region 2 2.56 w/o with 12 burnable poison rods  
     per assembly  
 36 Fuel Type 3 assemblies = region 3 3.10 w/o  
 16 Fuel Type 4 assemblies = region 3 3.10 w/o with 12 burnable poison rods  
     per assembly  
 8 Fuel Type 11 assemblies = region 1 1.86 w/o with part-length control rods  
 157 Total Assemblies

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 3 of 6

CYCLE: 1

PART B - PWR STATEPOINT

EXPOSURE 6600 MWD/MTU (MOC-1. 1/4/74)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                | VALUE                                      | SOURCE                  | COMMENTS                                           |
|--------------------------------------------|--------------------------------------------|-------------------------|----------------------------------------------------|
| <u>PWR Statepoint Data</u>                 |                                            |                         |                                                    |
| 1. Core power (MWt)                        | 2112                                       | NCCO<br>log sheets      | 96% power                                          |
| 2. Total core flow ( $10^6$ lbs/hr.)       | 100.5                                      | Idem                    | 99% flow                                           |
| 3. System pressure (psia)                  | 1860                                       | Idem                    | none                                               |
| 4. Soluble poison concentration<br>(ppm)   | 570                                        | Daily Water<br>Report   | none                                               |
| 5. Inlet temperature (oF)                  | 539                                        | NCCO<br>log sheets      | From log sheets $T_{ave} = 566$<br>$\Delta T = 54$ |
| 6. Time at associated power<br>level (hrs) | 72 hrs @ 97% power<br>except 5 hrs @ 75%   | Idem                    | none                                               |
|                                            | & 2 hrs @ 90% prior<br>to incore traverses |                         |                                                    |
| 7. Xenon condition                         | equilibrium                                | inferred from<br>item 6 | none                                               |
|                                            |                                            |                         |                                                    |

Verified By: RTTDate: 5/24/76

REACTOR: Turkey Point 3

TABLE 2.4 PWR OPERATING DATA

Sheet 4 of 6

CYCLE: 1

PART B - PWR STATEPOINT

Rev. 1 Date: 4/5/77

EXPOSURE 6600 MWD/MTU (MOC-1. 1/4/74)

| ITEM (Unit)                                    | VALUE                                      | SOURCE             | COMMENTS                                 |
|------------------------------------------------|--------------------------------------------|--------------------|------------------------------------------|
| 8. Control rod positions<br>(by location)      | all rods out except<br>Bank D at 223 steps | NCCO<br>log sheets | 228 steps in fully withdrawn<br>position |
| 9. Inter-calibrated data from<br>traverses     | See attached                               | FP&L Records       | Diagram #2.4-4 attached                  |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
|                                                |                                            |                    |                                          |
| Verified By: <u>R 791</u> Date: <u>5/26/76</u> |                                            |                    |                                          |

Diagram 2.4-4

Incore Power Distributions, Cycle 1  
6600 MWD/MTU (1/4/74)

| 1                | M 3    | 2      | J 15   | 3      | F 4    | 4      | L 8    | 5      | F 8    | 6      | D 12 | 7 | B 5 | 8 | H 6 | 9 | J 3 | 10 | D 3 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|---|-----|---|-----|---|-----|----|-----|
| 1                | 0.1873 | 0.1744 | 0.4267 | 0.4063 | 0.0000 | 0.3367 | 0.1721 | 0.4877 | 0.0000 | 0.1921 |      |   |     |   |     |   |     |    |     |
| 2                | 0.3025 | 0.2930 | 0.7244 | 0.6739 | 0.0000 | 0.5612 | 0.2881 | 0.8399 | 0.0000 | 0.3101 |      |   |     |   |     |   |     |    |     |
| 3                | 0.4020 | 0.3906 | 0.9501 | 0.8848 | 0.0000 | 0.7335 | 0.3834 | 1.0818 | 0.0000 | 0.4128 |      |   |     |   |     |   |     |    |     |
| 4                | 0.5132 | 0.4883 | 1.1701 | 1.1036 | 0.0000 | 0.9173 | 0.4891 | 1.3353 | 0.0000 | 0.5193 |      |   |     |   |     |   |     |    |     |
| 5                | 0.5951 | 0.5555 | 1.3213 | 1.2403 | 0.0000 | 1.0586 | 0.5652 | 1.4882 | 0.0000 | 0.5954 |      |   |     |   |     |   |     |    |     |
| 6                | 0.6400 | 0.5872 | 1.4034 | 1.3165 | 0.0000 | 1.1321 | 0.6038 | 1.5675 | 0.0000 | 0.6392 |      |   |     |   |     |   |     |    |     |
| 7                | 0.6556 | 0.5980 | 1.4256 | 1.3536 | 0.0000 | 1.1689 | 0.6148 | 1.5888 | 0.0000 | 0.6582 |      |   |     |   |     |   |     |    |     |
| 8                | 0.6537 | 0.5865 | 1.4128 | 1.3380 | 0.0000 | 1.1495 | 0.6077 | 1.5521 | 0.0000 | 0.6525 |      |   |     |   |     |   |     |    |     |
| 9                | 0.6478 | 0.5859 | 1.4053 | 1.3126 | 0.0000 | 1.1321 | 0.6051 | 1.5153 | 0.0000 | 0.6544 |      |   |     |   |     |   |     |    |     |
| 10               | 0.6634 | 0.6049 | 1.4432 | 1.3380 | 0.0000 | 1.1689 | 0.6244 | 1.5521 | 0.0000 | 0.6753 |      |   |     |   |     |   |     |    |     |
| 11               | 0.6634 | 0.6037 | 1.4432 | 1.3419 | 0.0000 | 1.1573 | 0.6232 | 1.5424 | 0.0000 | 0.6772 |      |   |     |   |     |   |     |    |     |
| 12               | 0.6595 | 0.5929 | 1.4090 | 1.3185 | 0.0000 | 1.1379 | 0.6199 | 1.5076 | 0.0000 | 0.6638 |      |   |     |   |     |   |     |    |     |
| 13               | 0.6400 | 0.5777 | 1.3578 | 1.2638 | 0.0000 | 1.1108 | 0.5948 | 1.4321 | 0.0000 | 0.6411 |      |   |     |   |     |   |     |    |     |
| 14               | 0.6049 | 0.5498 | 1.2696 | 1.2013 | 0.0000 | 1.0605 | 0.5761 | 1.3914 | 0.0000 | 0.6030 |      |   |     |   |     |   |     |    |     |
| 15               | 0.6342 | 0.5745 | 1.3370 | 1.2540 | 0.0000 | 1.1089 | 0.5877 | 1.4418 | 0.0000 | 0.5897 |      |   |     |   |     |   |     |    |     |
| 16               | 0.6420 | 0.5777 | 1.3351 | 1.2599 | 0.0000 | 1.1031 | 0.5871 | 1.4418 | 0.0000 | 0.6316 |      |   |     |   |     |   |     |    |     |
| 17               | 0.6439 | 0.5739 | 1.3218 | 1.2423 | 0.0000 | 1.0818 | 0.5845 | 1.4030 | 0.0000 | 0.6182 |      |   |     |   |     |   |     |    |     |
| 18               | 0.6205 | 0.5548 | 1.2649 | 1.2013 | 0.0000 | 1.0528 | 0.5697 | 1.3643 | 0.0000 | 0.6049 |      |   |     |   |     |   |     |    |     |
| 19               | 0.5756 | 0.5206 | 1.2232 | 1.1427 | 0.0000 | 0.9870 | 0.5400 | 1.2850 | 0.0000 | 0.5650 |      |   |     |   |     |   |     |    |     |
| 20               | 0.5932 | 0.5453 | 1.2534 | 1.2091 | 0.0000 | 1.0489 | 0.5697 | 1.3605 | 0.0000 | 0.5992 |      |   |     |   |     |   |     |    |     |
| 21               | 0.5971 | 0.5523 | 1.3009 | 1.2208 | 0.0000 | 1.0586 | 0.5755 | 1.3682 | 0.0000 | 0.6030 |      |   |     |   |     |   |     |    |     |
| 22               | 0.5951 | 0.5434 | 1.2877 | 1.2130 | 0.0000 | 0.6638 | 0.5677 | 1.3527 | 0.0000 | 0.5897 |      |   |     |   |     |   |     |    |     |
| 23               | 0.5737 | 0.5104 | 1.2384 | 1.1583 | 0.0000 | 1.0005 | 0.5381 | 1.2947 | 0.0000 | 0.5650 |      |   |     |   |     |   |     |    |     |
| 24               | 0.5132 | 0.4705 | 1.1132 | 1.0255 | 0.0000 | 0.8883 | 0.4794 | 1.1669 | 0.0000 | 0.5022 |      |   |     |   |     |   |     |    |     |
| 25               | 0.5210 | 0.4711 | 1.1398 | 1.0548 | 0.0000 | 0.9192 | 0.4833 | 1.2076 | 0.0000 | 0.5212 |      |   |     |   |     |   |     |    |     |
| 26               | 0.4703 | 0.4260 | 1.0411 | 0.9630 | 0.0000 | 0.8380 | 0.4311 | 1.0876 | 0.0000 | 0.4680 |      |   |     |   |     |   |     |    |     |
| 27               | 0.3805 | 0.3462 | 0.8458 | 0.7813 | 0.0000 | 0.6870 | 0.3454 | 0.9057 | 0.0000 | 0.3824 |      |   |     |   |     |   |     |    |     |
| 28               | 0.2439 | 0.2200 | 0.5538 | 0.5059 | 0.0000 | 0.4587 | 0.2120 | 0.5632 | 0.0000 | 0.2473 |      |   |     |   |     |   |     |    |     |
| 29               | 0.1385 | 0.1268 | 0.2845 | 0.2969 | 0.0000 | 0.2264 | 0.1282 | 0.3154 | 0.0000 | 0.1370 |      |   |     |   |     |   |     |    |     |
| THIMBLE AVERAGE  |        |        |        | 1.1168 | 1.0000 | 0.9524 | 0.5149 | 1.2871 | 1.0000 | 0.5484 |      |   |     |   |     |   |     |    |     |
| AXIAL PEAK       |        |        |        | 1.212  | 0.000  | 1.227  | 1.213  | 1.234  | 0.000  | 1.235  |      |   |     |   |     |   |     |    |     |
| AVERAGE * PEAK   |        |        |        | 1.354  | 0.000  | 1.169  | 0.624  | 1.589  | 0.000  | 0.677  |      |   |     |   |     |   |     |    |     |
| AXIAL OFFSET (%) |        |        |        | 5.64   | 1.00   | 6.59   | 5.09   | 7.43   | 1.00   | 5.43   |      |   |     |   |     |   |     |    |     |

Note: (1) See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

(2) The incore data tabulated above is derived from the raw detector readings and is adjusted for axial alignment, background, drift, and scale factor.

## Diagram 2.4-4

Incore Power Distributions, Cycle 1  
6600 MWD/MTU (1/4/74)

|    | 11 L 9 | 12 B10 | 13 L 4 | 14 F13                    | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|----|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.4591 | 0.2446 | 0.3269 | 0.3379                    | 0.4625 | 0.3743 | 0.2976 | 0.2172 | 0.5314 | 0.4962 |
| 2  | 0.7904 | 0.4096 | 0.5259 | 0.5489                    | 0.8195 | 0.6341 | 0.4704 | 0.3568 | 0.8416 | 0.8603 |
| 3  | 1.0287 | 0.5443 | 0.7278 | 0.7208                    | 1.0303 | 0.8397 | 0.6240 | 0.4693 | 1.0879 | 1.0902 |
| 4  | 1.2708 | 0.6884 | 0.9160 | 0.9161                    | 1.2996 | 1.0646 | 0.7987 | 0.5856 | 1.3381 | 1.3450 |
| 5  | 1.4374 | 0.7870 | 1.0585 | 1.0489                    | 1.4498 | 1.1984 | 0.9081 | 0.6652 | 1.5029 | 1.4868 |
| 6  | 1.5188 | 0.8496 | 1.1440 | 1.1329                    | 1.5357 | 1.2760 | 0.9657 | 0.7039 | 1.5902 | 1.5673 |
| 7  | 1.5498 | 0.8705 | 1.1839 | 1.1661                    | 1.5610 | 1.3090 | 0.9945 | 0.7136 | 1.6115 | 1.5903 |
| 8  | 1.5227 | 0.8610 | 1.1744 | 1.1603                    | 1.5259 | 1.2857 | 0.9734 | 0.7039 | 1.5591 | 1.5481 |
| 9  | 1.4994 | 0.8496 | 1.1516 | 1.1407                    | 1.5005 | 1.2741 | 0.9696 | 0.6942 | 1.5126 | 1.5175 |
| 10 | 1.5324 | 0.8667 | 1.1839 | 1.1681                    | 1.5357 | 1.3070 | 0.9907 | 0.7078 | 1.5494 | 1.5462 |
| 11 | 1.5207 | 0.8648 | 1.1896 | 1.1720                    | 1.5357 | 1.3051 | 0.9869 | 0.7098 | 1.5436 | 1.5424 |
| 12 | 1.4878 | 0.8534 | 1.1706 | 1.1642                    | 1.5064 | 1.2721 | 0.9753 | 0.7001 | 1.5107 | 1.5060 |
| 13 | 1.4200 | 0.8268 | 1.1383 | 1.1349                    | 1.4381 | 1.2178 | 0.9369 | 0.6768 | 1.4447 | 1.4351 |
| 14 | 1.3793 | 0.7889 | 1.0737 | 1.0724                    | 1.3601 | 1.1577 | 0.9081 | 0.6477 | 1.3633 | 1.3604 |
| 15 | 1.4161 | 0.8249 | 1.1345 | 1.1232                    | 1.4147 | 1.2120 | 0.9485 | 0.6787 | 1.4176 | 1.4064 |
| 16 | 1.4142 | 0.8268 | 1.1345 | 1.1232                    | 1.4264 | 1.2237 | 0.9561 | 0.6826 | 1.4176 | 1.4044 |
| 17 | 1.3774 | 0.8174 | 1.1193 | 1.1212                    | 1.4225 | 1.2140 | 0.9408 | 0.6749 | 1.4079 | 1.3929 |
| 18 | 1.3561 | 0.7908 | 1.0870 | 1.0919                    | 1.3679 | 1.1771 | 0.9101 | 0.6535 | 1.3672 | 1.3585 |
| 19 | 1.2747 | 0.7529 | 1.0148 | 1.0313                    | 1.2918 | 1.1015 | 0.8640 | 0.6167 | 1.3090 | 1.2780 |
| 20 | 1.3444 | 0.7946 | 1.0527 | 1.0899                    | 1.3503 | 1.1558 | 0.9139 | 0.7350 | 1.3497 | 1.3604 |
| 21 | 1.3483 | 0.7984 | 1.1079 | 1.0958                    | 1.3562 | 1.1577 | 0.9177 | 0.7427 | 1.3497 | 1.3623 |
| 22 | 1.3386 | 0.7813 | 1.0908 | 1.0880                    | 1.3562 | 1.1422 | 0.9005 | 0.6574 | 1.3342 | 1.3470 |
| 23 | 1.2824 | 0.7434 | 1.0319 | 1.0392                    | 1.3054 | 1.1054 | 0.8640 | 0.6264 | 1.2896 | 1.3029 |
| 24 | 1.1527 | 0.6732 | 0.9122 | 0.9259                    | 1.1942 | 0.9968 | 0.7680 | 0.5546 | 1.1635 | 1.1669 |
| 25 | 1.1972 | 0.6903 | 0.9293 | 0.9337                    | 1.2040 | 1.0162 | 0.7872 | 0.5760 | 1.2062 | 1.2224 |
| 26 | 1.0829 | 0.6182 | 0.8399 | 0.8360                    | 1.0927 | 0.9153 | 0.7104 | 0.5275 | 1.1015 | 1.1170 |
| 27 | 0.8737 | 0.5063 | 0.6784 | 0.6758                    | 0.8917 | 0.7466 | 0.5818 | 0.4344 | 0.9095 | 0.9274 |
| 28 | 0.5909 | 0.3300 | 0.4428 | 0.4414                    | 0.5795 | 0.5042 | 0.3974 | 0.2851 | 0.5992 | 0.6285 |
| 29 | 0.3041 | 0.1953 | 0.2470 | 0.2598                    | 0.3161 | 0.2831 | 0.2438 | 0.1590 | 0.3103 | 0.3238 |
|    | 1.2639 | 0.7225 | 0.9840 | THIMBLE AVERAGE<br>0.9808 | 1.2765 | 1.0764 | 0.8298 | 0.6060 | 1.2892 | 1.2886 |
|    | 1.226  | 1.205  | 1.209  | AXIAL PEAK<br>1.195       | 1.223  | 1.216  | 1.199  | 1.226  | 1.250  | 1.234  |
|    | 1.550  | 0.870  | 1.150  | AVERAGE * PEAK<br>1.172   | 1.561  | 1.309  | 0.995  | 0.743  | 1.612  | 1.590  |
|    | 6.79   | 4.75   | 4.38   | AXIAL OFFSET (%)<br>3.98  | 6.53   | 5.74   | 4.98   | 3.52   | 7.65   | 7.24   |

Diagram 2.4-4

Incore Power Distributions, Cycle 1  
6600 MWD/MTU (1/4/74)

|    | 21 F11 | 22 N 5 | 23 J10 | 24 J 5                    | 25 R 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.3862 | 0.0000 | 0.0000 | 0.4932                    | 0.0000 | 0.3587 | 0.0000 | 0.5239 | 0.3759 | 0.1935 |
| 2  | 0.6259 | 0.0000 | 0.0000 | 0.7908                    | 0.0000 | 0.5696 | 0.0000 | 0.8178 | 0.6379 | 0.3002 |
| 3  | 0.8370 | 0.0000 | 0.0000 | 1.0276                    | 0.0000 | 0.7327 | 0.0000 | 1.0768 | 0.8429 | 0.4004 |
| 4  | 1.0482 | 0.0000 | 0.0000 | 1.2821                    | 0.0000 | 0.9341 | 0.0000 | 1.3320 | 1.0954 | 0.4982 |
| 5  | 1.2023 | 0.0000 | 0.0000 | 1.4308                    | 0.0000 | 1.0606 | 0.0000 | 1.4983 | 1.2282 | 0.5684 |
| 6  | 1.2974 | 0.0000 | 0.0000 | 1.5072                    | 0.0000 | 1.1355 | 0.0000 | 1.5756 | 1.3137 | 0.6067 |
| 7  | 1.3335 | 0.0000 | 0.0000 | 1.5287                    | 0.0000 | 1.1681 | 0.0000 | 1.6027 | 1.3384 | 0.6182 |
| 8  | 1.3031 | 0.0000 | 0.0000 | 1.5072                    | 0.0000 | 1.1489 | 0.0000 | 1.5621 | 1.3042 | 0.6042 |
| 9  | 1.2821 | 0.0000 | 0.0000 | 1.4856                    | 0.0000 | 1.1489 | 0.0000 | 1.5253 | 1.2681 | 0.6093 |
| 10 | 1.3107 | 0.0000 | 0.0000 | 1.5385                    | 0.0000 | 1.1776 | 0.0000 | 1.5389 | 1.2947 | 0.6221 |
| 11 | 1.3031 | 0.0000 | 0.0000 | 1.5385                    | 0.0000 | 1.1815 | 0.0000 | 1.5079 | 1.2833 | 0.6202 |
| 12 | 1.2745 | 0.0000 | 0.0000 | 1.4993                    | 0.0000 | 1.1681 | 0.0000 | 1.4751 | 1.2472 | 0.6112 |
| 13 | 1.2384 | 0.0000 | 0.0000 | 1.4386                    | 0.0000 | 1.1297 | 0.0000 | 1.4151 | 1.2282 | 0.5901 |
| 14 | 1.1699 | 0.0000 | 0.0000 | 1.3427                    | 0.0000 | 1.0837 | 0.0000 | 1.3803 | 1.1808 | 0.5716 |
| 15 | 1.2346 | 0.0000 | 0.0000 | 1.3858                    | 0.0000 | 1.1182 | 0.0000 | 1.4248 | 1.2453 | 0.5882 |
| 16 | 1.2327 | 0.0000 | 0.0000 | 1.3838                    | 0.0000 | 1.1144 | 0.0000 | 1.4209 | 1.2472 | 0.5927 |
| 17 | 1.2194 | 0.0000 | 0.0000 | 1.3819                    | 0.0000 | 1.0971 | 0.0000 | 1.4016 | 1.2301 | 0.5882 |
| 18 | 1.1813 | 0.0000 | 0.0000 | 1.3525                    | 0.0000 | 1.0722 | 0.0000 | 1.3610 | 1.1827 | 0.5684 |
| 19 | 1.1090 | 0.0000 | 0.0000 | 1.2821                    | 0.0000 | 1.0146 | 0.0000 | 1.2817 | 1.1162 | 0.5365 |
| 20 | 1.1832 | 0.0000 | 0.0000 | 1.3408                    | 0.0000 | 1.0645 | 0.0000 | 1.3610 | 1.1789 | 0.5716 |
| 21 | 1.1946 | 0.0000 | 0.0000 | 1.3427                    | 0.0000 | 1.0702 | 0.0000 | 1.3707 | 1.1827 | 0.5748 |
| 22 | 1.1737 | 0.0000 | 0.0000 | 1.3290                    | 0.0000 | 1.0683 | 0.0000 | 1.3591 | 1.1637 | 0.5684 |
| 23 | 1.1166 | 0.0000 | 0.0000 | 1.2821                    | 0.0000 | 1.0261 | 0.0000 | 1.3107 | 1.1049 | 0.5403 |
| 24 | 1.0196 | 0.0000 | 0.0000 | 1.1666                    | 0.0000 | 0.9245 | 0.0000 | 1.1735 | 1.0061 | 0.4828 |
| 25 | 1.0215 | 0.0000 | 0.0000 | 1.2038                    | 0.0000 | 0.9360 | 0.0000 | 1.2179 | 1.0194 | 0.4899 |
| 26 | 0.9245 | 0.0000 | 0.0000 | 1.0942                    | 0.0000 | 0.8478 | 0.0000 | 1.1116 | 0.9188 | 0.4432 |
| 27 | 0.7457 | 0.0000 | 0.0000 | 0.8984                    | 0.0000 | 0.6886 | 0.0000 | 0.8796 | 0.7461 | 0.3628 |
| 28 | 0.4680 | 0.0000 | 0.0000 | 0.5872                    | 0.0000 | 0.4584 | 0.0000 | 0.5258 | 0.4860 | 0.2446 |
| 29 | 0.2834 | 0.0000 | 0.0000 | 0.3132                    | 0.0000 | 0.2570 | 0.0000 | 0.3403 | 0.2734 | 0.1405 |
|    | 1.0852 | 1.0000 | 1.0000 | THIMBLE AVERAGE<br>1.2625 | 1.0000 | 0.9803 | 1.0000 | 1.2836 | 1.0863 | 0.5193 |
|    | 1.229  | 0.000  | 0.000  | AXIAL PEAK<br>1.219       | 0.000  | 1.205  | 0.000  | 1.249  | 1.232  | 1.198  |
|    | 1.334  | 0.000  | 0.000  | AVERAGE * PEAK<br>1.538   | 0.000  | 1.181  | 0.000  | 1.603  | 1.338  | 0.622  |
|    | 5.55   | 1.00   | 1.00   | AXIAL OFFSET (%)<br>6.68  | 1.00   | 4.76   | 1.00   | 7.30   | 5.69   | 4.70   |

Diagram 2.4-4

Incore Power Distributions, Cycle 1  
6600 MWD/MTU (1/4/74)

|    | 31 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2447           | 0.4223 | 0.4150 | 0.1877 | 0.1895 | 0.2164 | 0.0000 | 0.4497 | 0.3594 | 0.4277 |
| 2  | 0.4013           | 0.6668 | 0.7156 | 0.2889 | 0.3151 | 0.3550 | 0.0000 | 0.6900 | 0.5670 | 0.6464 |
| 3  | 0.5383           | 0.8936 | 0.9289 | 0.3895 | 0.4137 | 0.4746 | 0.0000 | 0.8918 | 0.7361 | 0.8382 |
| 4  | 0.6831           | 1.1165 | 1.1694 | 0.4907 | 0.5220 | 0.5904 | 0.0000 | 1.1320 | 0.9437 | 1.0587 |
| 5  | 0.7869           | 1.2612 | 1.3129 | 0.5625 | 0.5974 | 0.6701 | 0.0000 | 1.2608 | 1.0744 | 1.2064 |
| 6  | 0.8436           | 1.3394 | 1.3749 | 0.6003 | 0.6380 | 0.7100 | 0.0000 | 1.3300 | 1.1532 | 1.2889 |
| 7  | 0.8593           | 1.3707 | 1.3562 | 0.6125 | 0.6534 | 0.7214 | 0.0000 | 1.3531 | 1.1839 | 1.3177 |
| 8  | 0.8554           | 1.3629 | 1.3710 | 0.6067 | 0.6476 | 0.7062 | 0.0000 | 1.3242 | 1.1570 | 1.2927 |
| 9  | 0.8377           | 1.3316 | 1.3555 | 0.5971 | 0.6476 | 0.6967 | 0.0000 | 1.3223 | 1.1609 | 1.2793 |
| 10 | 0.8651           | 1.3687 | 1.3524 | 0.6131 | 0.6631 | 0.7081 | 0.0000 | 1.3434 | 1.1897 | 1.3157 |
| 11 | 0.8671           | 1.3668 | 1.3543 | 0.6112 | 0.6650 | 0.7062 | 0.0000 | 1.3434 | 1.1933 | 1.3157 |
| 12 | 0.8651           | 1.3335 | 1.3749 | 0.5996 | 0.6573 | 0.6986 | 0.0000 | 1.3165 | 1.1743 | 1.2927 |
| 13 | 0.8417           | 1.2846 | 1.3167 | 0.5843 | 0.6360 | 0.6777 | 0.0000 | 1.2646 | 1.1320 | 1.2390 |
| 14 | 0.7790           | 1.2064 | 1.2489 | 0.5586 | 0.6051 | 0.6530 | 0.0000 | 1.2262 | 1.0897 | 1.1872 |
| 15 | 0.8123           | 1.2553 | 1.2535 | 0.5798 | 0.6302 | 0.6758 | 0.0000 | 1.2646 | 1.1320 | 1.2313 |
| 16 | 0.8162           | 1.2553 | 1.2554 | 0.5804 | 0.6302 | 0.6796 | 0.0000 | 1.2762 | 1.1340 | 1.2390 |
| 17 | 0.8162           | 1.2455 | 1.2896 | 0.5676 | 0.6225 | 0.6777 | 0.0000 | 1.2512 | 1.1243 | 1.2198 |
| 18 | 0.7986           | 1.2143 | 1.2586 | 0.5478 | 0.6032 | 0.6568 | 0.0000 | 1.1993 | 1.0878 | 1.1815 |
| 19 | 0.7497           | 1.1439 | 1.1810 | 0.5170 | 0.5722 | 0.6303 | 0.0000 | 1.1320 | 1.0321 | 1.1163 |
| 20 | 0.7869           | 1.2084 | 1.2372 | 0.5516 | 0.6109 | 0.6587 | 0.0000 | 1.1974 | 1.0744 | 1.1834 |
| 21 | 0.7966           | 1.2201 | 1.2527 | 0.5612 | 0.6167 | 0.6663 | 0.0000 | 1.2051 | 1.0801 | 1.1968 |
| 22 | 0.7966           | 1.2123 | 1.2469 | 0.5586 | 0.6051 | 0.6549 | 0.0000 | 1.1935 | 1.0667 | 1.1776 |
| 23 | 0.7614           | 1.1673 | 1.2004 | 0.5311 | 0.5703 | 0.6246 | 0.0000 | 1.1416 | 1.0244 | 1.1182 |
| 24 | 0.6851           | 1.0305 | 1.0763 | 0.4754 | 0.5007 | 0.5714 | 0.0000 | 1.0244 | 0.9341 | 1.0050 |
| 25 | 0.6949           | 1.0656 | 1.1112 | 0.4850 | 0.5084 | 0.5809 | 0.0000 | 1.0513 | 0.9398 | 1.0223 |
| 26 | 0.6401           | 0.9679 | 0.9587 | 0.4356 | 0.4543 | 0.5296 | 0.0000 | 0.9514 | 0.8418 | 0.9321 |
| 27 | 0.5207           | 0.7958 | 0.8106 | 0.3562 | 0.3731 | 0.4309 | 0.0000 | 0.7822 | 0.6842 | 0.7653 |
| 28 | 0.3230           | 0.5318 | 0.5217 | 0.2415 | 0.2436 | 0.2753 | 0.0000 | 0.5247 | 0.4478 | 0.5102 |
| 29 | 0.2016           | 0.3070 | 0.2870 | 0.1384 | 0.1527 | 0.1519 | 0.0000 | 0.3056 | 0.2537 | 0.2858 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 0.7230           | 1.1279 | 1.1599 | 0.5095 | 0.5491 | 0.6023 | 1.0000 | 1.1204 | 0.9880 | 1.0905 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.199            | 1.215  | 1.204  | 1.203  | 1.211  | 1.198  | 0.000  | 1.208  | 1.208  | 1.208  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 0.867            | 1.371  | 1.356  | 0.613  | 0.665  | 0.721  | 0.000  | 1.353  | 1.194  | 1.318  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | 4.24             | 6.02   | 5.96   | 5.12   | 5.00   | 4.53   | 1.00   | 6.18   | 4.83   | 5.51   |

Diagram 2.4-4

## Incore Power Distributions, Cycle 1

6600 MWD/MTU (1/4/74)

|    | 41 D10 | 42 G14 | 43 H13 | 44 C 8                    | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|----|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 1  | 0.4326 | 0.0000 | 0.3291 | 0.3562                    | 0.3863 | 0.3470 | 0.4713 | 0.4234 | 0.4225 | 0.4330 |
| 2  | 0.7223 | 0.0000 | 0.5840 | 0.6009                    | 0.5631 | 0.5955 | 0.7358 | 0.7142 | 0.7123 | 0.7327 |
| 3  | 0.9532 | 0.0000 | 0.7742 | 0.7986                    | 0.7630 | 0.7965 | 0.9465 | 0.9288 | 0.9416 | 0.9357 |
| 4  | 1.1940 | 0.0000 | 0.9854 | 1.0159                    | 0.9802 | 0.9975 | 1.1860 | 1.1669 | 1.1651 | 1.1696 |
| 5  | 1.3408 | 0.0000 | 1.1109 | 1.1490                    | 1.1186 | 1.1284 | 1.3335 | 1.3230 | 1.3167 | 1.3223 |
| 6  | 1.4191 | 0.0000 | 1.1756 | 1.2214                    | 1.1935 | 1.1966 | 1.4159 | 1.4127 | 1.4038 | 1.4035 |
| 7  | 1.4523 | 0.0000 | 1.2023 | 1.2351                    | 1.2166 | 1.2270 | 1.4428 | 1.4401 | 1.4436 | 1.4345 |
| 8  | 1.4406 | 0.0000 | 1.1832 | 1.2331                    | 1.1916 | 1.2175 | 1.4159 | 1.4264 | 1.4228 | 1.4171 |
| 9  | 1.4073 | 0.0000 | 1.1813 | 1.2214                    | 1.1647 | 1.2061 | 1.4121 | 1.3835 | 1.4152 | 1.4055 |
| 10 | 1.4582 | 0.0000 | 1.2003 | 1.2488                    | 1.1955 | 1.2478 | 1.4485 | 1.4303 | 1.4606 | 1.4499 |
| 11 | 1.4582 | 0.0000 | 1.2003 | 1.2507                    | 1.2031 | 1.2478 | 1.4485 | 1.4284 | 1.4644 | 1.4519 |
| 12 | 1.4308 | 0.0000 | 1.1737 | 1.2390                    | 1.1955 | 1.2251 | 1.4217 | 1.4049 | 1.4341 | 1.4151 |
| 13 | 1.3780 | 0.0000 | 1.1376 | 1.1901                    | 1.1436 | 1.1777 | 1.3642 | 1.3581 | 1.3697 | 1.3533 |
| 14 | 1.3075 | 0.0000 | 1.1033 | 1.1313                    | 1.1070 | 1.1018 | 1.2895 | 1.2840 | 1.2996 | 1.2933 |
| 15 | 1.3643 | 0.0000 | 1.1452 | 1.1861                    | 1.1493 | 1.1606 | 1.3450 | 1.3464 | 1.3545 | 1.3339 |
| 16 | 1.3662 | 0.0000 | 1.1547 | 1.1920                    | 1.1455 | 1.1644 | 1.3489 | 1.3542 | 1.3527 | 1.3339 |
| 17 | 1.3623 | 0.0000 | 1.1319 | 1.1744                    | 1.1205 | 1.1568 | 1.3393 | 1.3542 | 1.3299 | 1.3204 |
| 18 | 1.3134 | 0.0000 | 1.0957 | 1.1313                    | 1.0821 | 1.1208 | 1.3048 | 1.3171 | 1.2977 | 1.2856 |
| 19 | 1.2547 | 0.0000 | 1.0558 | 1.0648                    | 1.0244 | 1.0544 | 1.2301 | 1.2215 | 1.2276 | 1.2199 |
| 20 | 1.2977 | 0.0000 | 1.1052 | 1.1313                    | 1.0705 | 1.1227 | 1.3086 | 1.2742 | 1.2996 | 1.3011 |
| 21 | 1.3036 | 0.0000 | 1.1147 | 1.1353                    | 1.0782 | 1.1265 | 1.3125 | 1.2801 | 1.3015 | 1.3069 |
| 22 | 1.2997 | 0.0000 | 1.1014 | 1.1235                    | 1.0705 | 1.1227 | 1.2895 | 1.2801 | 1.2826 | 1.2933 |
| 23 | 1.2507 | 0.0000 | 1.0368 | 1.0765                    | 1.0302 | 1.0810 | 1.2397 | 1.2430 | 1.2352 | 1.2431 |
| 24 | 1.1313 | 0.0000 | 0.9283 | 0.9728                    | 0.9206 | 0.9634 | 1.0960 | 1.1259 | 1.1064 | 1.1000 |
| 25 | 1.1372 | 0.0000 | 0.9511 | 0.9904                    | 0.9475 | 0.9805 | 1.1515 | 1.1493 | 1.1329 | 1.1271 |
| 26 | 1.0276 | 0.0000 | 0.8979 | 0.8867                    | 0.8668 | 0.8875 | 1.0519 | 1.0498 | 1.0211 | 1.0208 |
| 27 | 0.8377 | 0.0000 | 0.7229 | 0.7223                    | 0.7227 | 0.7225 | 0.8756 | 0.8566 | 0.8374 | 0.8390 |
| 28 | 0.5461 | 0.0000 | 0.4794 | 0.4658                    | 0.4959 | 0.4779 | 0.5920 | 0.5581 | 0.5532 | 0.5587 |
| 29 | 0.2936 | 0.0000 | 0.2663 | 0.2740                    | 0.2806 | 0.2598 | 0.3200 | 0.2966 | 0.2842 | 0.2861 |
|    | 1.2078 | 1.0000 | 1.0082 | THIMBLE AVERAGE<br>1.0394 | 1.0034 | 1.0289 | 1.2051 | 1.1954 | 1.1977 | 1.1938 |
|    | 1.207  | 0.000  | 1.152  | AXIAL PEAK<br>1.203       | 1.213  | 1.213  | 1.202  | 1.205  | 1.223  | 1.216  |
|    | 1.458  | 0.000  | 1.202  | AVERAGE * PEAK<br>1.251   | 1.217  | 1.248  | 1.449  | 1.440  | 1.464  | 1.452  |
|    | 5.63   | 1.00   | 4.49   | AXIAL OFFSET (%)<br>5.19  | 5.39   | 4.96   | 5.32   | 5.08   | 5.79   | 5.71   |

REACTOR: Turkey Point 3

Table 2.4 PWR Operating Data

Sheet 5 of 6

CYCLE: 1

Part B - PWR Statepoint

EXPOSURE: 9000 MWD/MTU (4/23/74)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                  | VALUE                                   | SOURCE               | COMMENTS                                          |
|----------------------------------------------|-----------------------------------------|----------------------|---------------------------------------------------|
| <u>PWR Statepoint Data</u>                   |                                         |                      |                                                   |
| 1. Core Power (Mwt)                          | 2134.                                   | NCCO log sheet       | 97% Power                                         |
| 2. Total core flow( $10^6$ lbs/hr)           | 100.5                                   | Idem                 | 99% Flow                                          |
| 3. System Pressure (psia)                    | 1860                                    | Idem                 | None                                              |
| 4. Soluble poison concentration (ppm)        | 405.                                    | Daily Water Report   | None                                              |
| 5. Inlet temperature (°F)                    | 536                                     | NCCO log sheet       | from log sheet<br>$T_{ave} = 564$ $\Delta T = 55$ |
| 6. Time at associated power level (hrs.)     | at least 72 hours                       | Idem                 | None                                              |
| 7. Xenon condition                           | equilibrium                             | inferred from item 6 | None                                              |
| 8. Control rod positions (by locations)      | all rods out except bank D at 206 steps | NCCO log sheet       | 228 steps is fully withdrawn position             |
| 9. Inter-calibrated data from traverses      | See attached                            | FP&L Records         | Diagram 2.4-5 attached                            |
|                                              |                                         |                      |                                                   |
| Verified By: <u>AKG</u> Date: <u>7/14/76</u> |                                         |                      |                                                   |

Diagram 2.4-5  
Incore Power Distributions, Cycle 1  
9000 MWD/MTU (4/23/74)

|    | 1 M 3  | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.1795 | 0.1609 | 0.4167 | 0.3090 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4011 | 0.1820 |
| 2  | 0.2714 | 0.2515 | 0.6320 | 0.4760 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6519 | 0.2615 |
| 3  | 0.3670 | 0.3316 | 0.7920 | 0.6534 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7220 | 0.3452 |
| 4  | 0.4189 | 0.4152 | 0.9737 | 0.8518 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9908 | 0.4393 |
| 5  | 0.5105 | 0.4653 | 1.1080 | 0.9708 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0871 | 0.5021 |
| 6  | 0.5512 | 0.4932 | 1.1653 | 1.0397 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1432 | 0.5397 |
| 7  | 0.5637 | 0.4974 | 1.1910 | 1.0752 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1613 | 0.5544 |
| 8  | 0.5553 | 0.4974 | 1.1693 | 1.0668 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1352 | 0.5544 |
| 9  | 0.5679 | 0.5023 | 1.1870 | 1.0668 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1493 | 0.5544 |
| 10 | 0.5866 | 0.5315 | 1.2265 | 1.1023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2034 | 0.5795 |
| 11 | 0.5929 | 0.5336 | 1.2502 | 1.1169 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2114 | 0.5920 |
| 12 | 0.5929 | 0.5350 | 1.2502 | 1.1232 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2195 | 0.5962 |
| 13 | 0.5929 | 0.5350 | 1.2265 | 1.1023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2034 | 0.5878 |
| 14 | 0.5846 | 0.5301 | 1.2068 | 1.0919 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1733 | 0.5753 |
| 15 | 0.6221 | 0.5649 | 1.2819 | 1.1649 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2495 | 0.6088 |
| 16 | 0.6534 | 0.5824 | 1.3154 | 1.2004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2816 | 0.6360 |
| 17 | 0.6618 | 0.5935 | 1.3411 | 1.2109 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3097 | 0.6485 |
| 18 | 0.6618 | 0.5928 | 1.3391 | 1.2088 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3177 | 0.6485 |
| 19 | 0.6409 | 0.5824 | 1.3253 | 1.2067 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2937 | 0.6380 |
| 20 | 0.6764 | 0.6207 | 1.4399 | 1.3006 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.4020 | 0.6862 |
| 21 | 0.7036 | 0.6465 | 1.4273 | 1.3633 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.4521 | 0.7113 |
| 22 | 0.7182 | 0.6562 | 1.5246 | 1.3841 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.4822 | 0.7217 |
| 23 | 0.7119 | 0.6485 | 1.5129 | 1.3800 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.4842 | 0.7217 |
| 24 | 0.6722 | 0.6207 | 1.4655 | 1.3111 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3839 | 0.6799 |
| 25 | 0.6994 | 0.6346 | 1.5031 | 1.3674 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.4622 | 0.7113 |
| 26 | 0.6555 | 0.5963 | 1.4221 | 1.3111 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3819 | 0.6694 |
| 27 | 0.5365 | 0.4848 | 1.1772 | 1.0814 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1432 | 0.5544 |
| 28 | 0.3862 | 0.3316 | 0.7624 | 0.7683 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7922 | 0.3975 |
| 29 | 0.2171 | 0.2027 | 0.4345 | 0.4447 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4232 | 0.2197 |

| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.5705          | 0.5163 | 1.2036 | 1.0847 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1750 | 0.5684 |

| AXIAL PEAK |       |       |       |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.259      | 1.271 | 1.267 | 1.276 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.263 | 1.270 |

| AVERAGE * PEAK |       |       |       |       |       |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.718          | 0.656 | 1.525 | 1.384 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.484 | 0.722 |

| AXIAL OFFSET (%) |        |       |        |      |      |      |      |      |       |        |
|------------------|--------|-------|--------|------|------|------|------|------|-------|--------|
| -10.14           | -10.33 | -9.62 | -11.28 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | -9.56 | -11.07 |

NOTE: See Diagram 2.2-3 for locations of incore detectors

Diagram 2.4-5

Incore Power Distributions, Cycle 1  
9000 MWD/MTU (4/23/74)

|                  | 11 L 9 | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.2607 | 0.2982 | 0.3048 | 0.3862 | 0.0000 | 0.2666 | 0.0000 | 0.4156 | 0.4364 |
| 2                | 0.0000 | 0.4187 | 0.5432 | 0.4718 | 0.6555 | 0.0000 | 0.4109 | 0.0000 | 0.6134 | 0.6554 |
| 3                | 0.0000 | 0.4681 | 0.6143 | 0.6138 | 0.8246 | 0.0000 | 0.5298 | 0.0000 | 0.8091 | 0.8218 |
| 4                | 0.0000 | 0.6261 | 0.7960 | 0.7745 | 1.0355 | 0.0000 | 0.6741 | 0.0000 | 1.0095 | 1.0307 |
| 5                | 0.0000 | 0.6952 | 0.9105 | 0.8894 | 1.1566 | 0.0000 | 0.7624 | 0.0000 | 1.1424 | 1.1495 |
| 6                | 0.0000 | 0.7347 | 0.9718 | 0.9562 | 1.2213 | 0.0000 | 0.8133 | 0.0000 | 1.2167 | 1.2175 |
| 7                | 0.0000 | 0.7387 | 1.0073 | 0.9896 | 1.2443 | 0.0000 | 0.8354 | 0.0000 | 1.2338 | 1.2361 |
| 8                | 0.0000 | 0.7308 | 0.9915 | 0.9770 | 1.2213 | 0.0000 | 0.8184 | 0.0000 | 1.2046 | 1.1920 |
| 9                | 0.0000 | 0.7367 | 0.9895 | 0.9812 | 1.2296 | 0.0000 | 0.8354 | 0.0000 | 1.2006 | 1.2175 |
| 10               | 0.0000 | 0.7604 | 1.0330 | 1.0146 | 1.2651 | 0.0000 | 0.8626 | 0.0000 | 1.2388 | 1.2514 |
| 11               | 0.0000 | 0.7703 | 1.0508 | 1.0355 | 1.2839 | 0.0000 | 0.8745 | 0.0000 | 1.2508 | 1.2604 |
| 12               | 0.0000 | 0.7742 | 1.0587 | 1.0376 | 1.2839 | 0.0000 | 0.8779 | 0.0000 | 1.2548 | 1.2752 |
| 13               | 0.0000 | 0.7644 | 1.0468 | 1.0355 | 1.2589 | 0.0000 | 0.8643 | 0.0000 | 1.2348 | 1.2361 |
| 14               | 0.0000 | 0.7565 | 1.0290 | 1.0355 | 1.2338 | 0.0000 | 0.8694 | 0.0000 | 1.2006 | 1.2158 |
| 15               | 0.0000 | 0.8039 | 1.1061 | 1.0919 | 1.3132 | 0.0000 | 0.9203 | 0.0000 | 1.2950 | 1.2854 |
| 16               | 0.0000 | 0.8315 | 1.1396 | 1.1190 | 1.3570 | 0.0000 | 0.9492 | 0.0000 | 1.3331 | 1.3125 |
| 17               | 0.0000 | 0.8434 | 1.1574 | 1.1399 | 1.3883 | 0.0000 | 0.9662 | 0.0000 | 1.3633 | 1.3380 |
| 18               | 0.0000 | 0.8374 | 1.1574 | 1.1441 | 1.3821 | 0.0000 | 0.9662 | 0.0000 | 1.3612 | 1.3431 |
| 19               | 0.0000 | 0.8335 | 1.1278 | 1.1399 | 1.3570 | 0.0000 | 0.9662 | 0.0000 | 1.3111 | 1.3533 |
| 20               | 0.0000 | 0.8967 | 1.2502 | 1.2380 | 1.4551 | 0.0000 | 0.9626 | 0.0000 | 1.4436 | 1.4399 |
| 21               | 0.0000 | 0.9303 | 1.2957 | 1.2798 | 1.5136 | 0.0000 | 1.0307 | 0.0000 | 1.4958 | 1.4908 |
| 22               | 0.0000 | 0.9362 | 1.3253 | 1.3027 | 1.5512 | 0.0000 | 1.0578 | 0.0000 | 1.5259 | 1.5130 |
| 23               | 0.0000 | 0.9224 | 1.3075 | 1.2902 | 1.5553 | 0.0000 | 1.0731 | 0.0000 | 1.5339 | 1.5265 |
| 24               | 0.0000 | 0.8750 | 1.1870 | 1.2129 | 1.4927 | 0.0000 | 1.0731 | 0.0000 | 1.4014 | 1.4722 |
| 25               | 0.0000 | 0.9125 | 1.2700 | 1.2547 | 1.5470 | 0.0000 | 1.0137 | 0.0000 | 1.5520 | 1.5486 |
| 26               | 0.0000 | 0.8335 | 1.1890 | 1.1628 | 1.4656 | 0.0000 | 1.0460 | 0.0000 | 1.4717 | 1.4688 |
| 27               | 0.0000 | 0.6972 | 0.9895 | 0.9562 | 1.2109 | 0.0000 | 0.8133 | 0.0000 | 1.2609 | 1.2293 |
| 28               | 0.0000 | 0.4582 | 0.6419 | 0.6785 | 0.8560 | 0.0000 | 0.5892 | 0.0000 | 0.8794 | 0.8948 |
| 29               | 0.0000 | 0.3002 | 0.3772 | 0.3946 | 0.4593 | 0.0000 | 0.3498 | 0.0000 | 0.5180 | 0.4703 |
| THINBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 0.7452 | 1.0187 | 1.0062 | 1.2422 | 1.0000 | 0.8487 | 1.0000 | 1.2255 | 1.2301 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.256  | 1.301  | 1.295  | 1.252  | 0.000  | 1.264  | 0.000  | 1.266  | 1.259  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.936  | 1.325  | 1.303  | 1.555  | 0.000  | 1.073  | 0.000  | 1.552  | 1.549  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | -8.83  | -10.64 | -11.19 | -9.35  | 1.00   | -10.61 | 1.00   | -9.80  | -9.25  |

Diagram 2.4-5

Incore Power Distributions, Cycle 1  
9000 MWD/MTU (4/23/74)

|    | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.3358 | 0.2587 | 0.3390 | 0.3925 | 0.3109 | 0.3107 | 0.1825 | 0.4196 | 0.2884 | 0.1681 |
| 2  | 0.5175 | 0.4392 | 0.5435 | 0.5971 | 0.5355 | 0.4788 | 0.2888 | 0.6180 | 0.4875 | 0.2683 |
| 3  | 0.6952 | 0.5094 | 0.7020 | 0.7850 | 0.6940 | 0.6266 | 0.3711 | 0.8100 | 0.6518 | 0.3498 |
| 4  | 0.8532 | 0.6579 | 0.8805 | 0.9937 | 0.8564 | 0.7913 | 0.4673 | 1.0146 | 0.8552 | 0.4381 |
| 5  | 0.9816 | 0.7441 | 1.0028 | 1.1190 | 0.9587 | 0.8931 | 0.5255 | 1.1587 | 0.9955 | 0.4924 |
| 6  | 1.0527 | 0.8003 | 1.0650 | 1.1921 | 1.0169 | 0.9543 | 0.5636 | 1.2255 | 1.0705 | 0.5264 |
| 7  | 1.0883 | 0.8223 | 1.0991 | 1.2129 | 1.0410 | 0.9831 | 0.5776 | 1.2568 | 1.0903 | 0.5366 |
| 8  | 1.0685 | 0.8203 | 1.0751 | 1.1816 | 1.0349 | 0.9645 | 0.5676 | 1.2401 | 1.0705 | 0.5230 |
| 9  | 1.0567 | 0.8203 | 1.0637 | 1.2129 | 1.0289 | 0.9848 | 0.5796 | 1.2213 | 1.0547 | 0.5400 |
| 10 | 1.0982 | 0.8584 | 1.1011 | 1.2651 | 1.0811 | 1.0222 | 0.5977 | 1.2443 | 1.0903 | 0.5552 |
| 11 | 1.1100 | 0.8785 | 1.1132 | 1.2860 | 1.1011 | 1.0392 | 0.6037 | 1.2443 | 1.1001 | 0.5586 |
| 12 | 1.1100 | 0.8825 | 1.1212 | 1.2860 | 1.1031 | 1.0494 | 0.6057 | 1.2443 | 1.1120 | 0.5603 |
| 13 | 1.1001 | 0.8785 | 1.1132 | 1.2610 | 1.0971 | 1.0256 | 0.6017 | 1.2338 | 1.1021 | 0.5552 |
| 14 | 1.0804 | 0.8604 | 1.0831 | 1.2234 | 1.0590 | 1.0358 | 0.5977 | 1.2171 | 1.0982 | 0.5552 |
| 15 | 1.1673 | 0.9186 | 1.1493 | 1.2860 | 1.1493 | 1.0816 | 0.6278 | 1.2965 | 1.1870 | 0.5858 |
| 16 | 1.1969 | 0.9427 | 1.1733 | 1.3236 | 1.1874 | 1.1037 | 0.6519 | 1.3278 | 1.2226 | 0.6028 |
| 17 | 1.2246 | 0.9607 | 1.1994 | 1.3591 | 1.2074 | 1.1207 | 0.6619 | 1.3486 | 1.2443 | 0.6096 |
| 18 | 1.2186 | 0.9647 | 1.2034 | 1.3486 | 1.2175 | 1.1258 | 0.6579 | 1.3507 | 1.2305 | 0.5909 |
| 19 | 1.1890 | 0.9407 | 1.1713 | 1.3486 | 1.1793 | 1.1224 | 0.6519 | 1.3403 | 1.2068 | 0.6079 |
| 20 | 1.3075 | 1.0389 | 1.3037 | 1.4572 | 1.2957 | 1.2005 | 0.6920 | 1.4322 | 1.3075 | 0.6537 |
| 21 | 1.3668 | 1.0710 | 1.3533 | 1.5052 | 1.3318 | 1.2429 | 0.7140 | 1.4927 | 1.3569 | 0.6758 |
| 22 | 1.3905 | 1.0891 | 1.3899 | 1.5324 | 1.3438 | 1.2752 | 0.7220 | 1.5198 | 1.3767 | 0.6860 |
| 23 | 1.3826 | 1.0811 | 1.3879 | 1.5365 | 1.3398 | 1.2701 | 0.7120 | 1.5240 | 1.3569 | 0.6758 |
| 24 | 1.2878 | 1.0008 | 1.2636 | 1.4843 | 1.2596 | 1.2090 | 0.6819 | 1.4530 | 1.2878 | 0.6317 |
| 25 | 1.3648 | 1.0791 | 1.3739 | 1.5574 | 1.3498 | 1.2463 | 0.6980 | 1.5261 | 1.3510 | 0.6571 |
| 26 | 1.2878 | 0.9728 | 1.3077 | 1.4739 | 1.2857 | 1.1682 | 0.6418 | 1.4739 | 1.2680 | 0.6113 |
| 27 | 1.0804 | 0.8043 | 1.1232 | 1.2234 | 1.0791 | 0.9645 | 0.5375 | 1.2443 | 1.0804 | 0.5060 |
| 28 | 0.7051 | 0.5415 | 0.9226 | 0.8685 | 0.7180 | 0.7013 | 0.3530 | 0.8894 | 0.6952 | 0.3685 |
| 29 | 0.4286 | 0.3470 | 0.4954 | 0.4927 | 0.3931 | 0.3871 | 0.2206 | 0.4718 | 0.4405 | 0.2038 |

## THIMBLE AVERAGE

|        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.0844 | 0.8458 | 1.0965 | 1.2273 | 1.0680 | 1.0011 | 0.5769 | 1.2283 | 1.0827 | 0.5396 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

## AXIAL PEAK

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.282 | 1.288 | 1.268 | 1.269 | 1.264 | 1.274 | 1.252 | 1.242 | 1.272 | 1.271 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

## AVERAGE \* PEAK

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.390 | 1.089 | 1.390 | 1.557 | 1.350 | 1.275 | 0.722 | 1.526 | 1.377 | 0.555 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

## AXIAL OFFSET (%)

|        |        |        |        |        |        |       |       |       |  |
|--------|--------|--------|--------|--------|--------|-------|-------|-------|--|
| -10.66 | -10.81 | -10.71 | -10.05 | -10.80 | -10.49 | -8.96 | -9.30 | -7.77 |  |
|--------|--------|--------|--------|--------|--------|-------|-------|-------|--|

Diagram 2.4-5  
Incore Power Distributions, Cycle 1  
9000 MWD/MTU (4/23/74)

|    | 31 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2234           | 0.3424 | 0.0000 | 0.1647 | 0.0000 | 0.1955 | 0.1867 | 0.3209 | 0.3192 | 0.3651 |
| 2  | 0.3486           | 0.5407 | 0.0000 | 0.2496 | 0.0000 | 0.3200 | 0.3273 | 0.5077 | 0.5060 | 0.5468 |
| 3  | 0.4635           | 0.6973 | 0.0000 | 0.3345 | 0.0000 | 0.4009 | 0.5200 | 0.6605 | 0.6503 | 0.6911 |
| 4  | 0.5887           | 0.8747 | 0.0000 | 0.4163 | 0.0000 | 0.5096 | 0.9396 | 0.8728 | 0.8201 | 0.8779 |
| 5  | 0.6618           | 0.9896 | 0.0000 | 0.4771 | 0.0000 | 0.5688 | 1.1103 | 0.9916 | 0.9135 | 0.9882 |
| 6  | 0.7077           | 1.0522 | 0.0000 | 0.5111 | 0.0000 | 0.5965 | 1.1846 | 1.0545 | 0.9814 | 1.0511 |
| 7  | 0.7286           | 1.0835 | 0.0000 | 0.5213 | 0.0000 | 0.6064 | 1.2207 | 1.0595 | 0.9984 | 1.0731 |
| 8  | 0.7244           | 1.0731 | 0.0000 | 0.5128 | 0.0000 | 0.5925 | 1.2006 | 1.0511 | 0.9729 | 1.0477 |
| 9  | 0.7244           | 1.0939 | 0.0000 | 0.5128 | 0.0000 | 0.5965 | 1.1866 | 1.0765 | 0.9984 | 1.0646 |
| 10 | 0.7557           | 1.1148 | 0.0000 | 0.5298 | 0.0000 | 0.6162 | 1.2368 | 1.1105 | 1.0324 | 1.1020 |
| 11 | 0.7662           | 1.1315 | 0.0000 | 0.5349 | 0.0000 | 0.6202 | 1.2568 | 1.1224 | 1.0494 | 1.1190 |
| 12 | 0.7745           | 1.1315 | 0.0000 | 0.5383 | 0.0000 | 0.6222 | 1.2589 | 1.1275 | 1.0494 | 1.1241 |
| 13 | 0.7662           | 1.1148 | 0.0000 | 0.5383 | 0.0000 | 0.6182 | 1.2388 | 1.1105 | 1.0358 | 1.0952 |
| 14 | 0.7495           | 1.1044 | 0.0000 | 0.5298 | 0.0000 | 0.6340 | 1.2006 | 1.1275 | 1.0409 | 1.1071 |
| 15 | 0.7912           | 1.1566 | 0.0000 | 0.5637 | 0.0000 | 0.6557 | 1.2829 | 1.1869 | 1.1003 | 1.1580 |
| 16 | 0.8184           | 1.1816 | 0.0000 | 0.5807 | 0.0000 | 0.6755 | 1.3151 | 1.2209 | 1.1343 | 1.1920 |
| 17 | 0.8393           | 1.2067 | 0.0000 | 0.5824 | 0.0000 | 0.6913 | 1.3432 | 1.2344 | 1.1546 | 1.2141 |
| 18 | 0.8434           | 1.2129 | 0.0000 | 0.5807 | 0.0000 | 0.6913 | 1.3612 | 1.2209 | 1.1512 | 1.2090 |
| 19 | 0.8285           | 1.2025 | 0.0000 | 0.5756 | 0.0000 | 0.6794 | 1.3412 | 1.2209 | 1.1512 | 1.2090 |
| 20 | 0.8956           | 1.3132 | 0.0000 | 0.6232 | 0.0000 | 0.7387 | 1.4396 | 1.3058 | 1.2192 | 1.3024 |
| 21 | 0.9332           | 1.3653 | 0.0000 | 0.6486 | 0.0000 | 0.7703 | 1.4857 | 1.3635 | 1.2616 | 1.3533 |
| 22 | 0.9541           | 1.3904 | 0.0000 | 0.6656 | 0.0000 | 0.7742 | 1.5239 | 1.3890 | 1.2854 | 1.3703 |
| 23 | 0.9499           | 1.3967 | 0.0000 | 0.6571 | 0.0000 | 0.7644 | 1.5319 | 1.3822 | 1.2837 | 1.3618 |
| 24 | 0.8706           | 1.3549 | 0.0000 | 0.6147 | 0.0000 | 0.7268 | 1.4054 | 1.3227 | 1.2209 | 1.3024 |
| 25 | 0.9332           | 1.3841 | 0.0000 | 0.6401 | 0.0000 | 0.7604 | 1.5339 | 1.3737 | 1.2735 | 1.3448 |
| 26 | 0.8810           | 1.3069 | 0.0000 | 0.5892 | 0.0000 | 0.7150 | 1.4576 | 1.2888 | 1.1852 | 1.2684 |
| 27 | 0.7411           | 1.0835 | 0.0000 | 0.4941 | 0.0000 | 0.5985 | 1.2207 | 1.0680 | 0.9645 | 1.0477 |
| 28 | 0.5157           | 0.7599 | 0.0000 | 0.3600 | 0.0000 | 0.4088 | 0.8071 | 0.7709 | 0.6928 | 0.7675 |
| 29 | 0.3173           | 0.4551 | 0.0000 | 0.1987 | 0.0000 | 0.2212 | 0.4578 | 0.4483 | 0.3871 | 0.4228 |
|    | THRIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
|    | 0.7438           | 1.0970 | 1.0000 | 0.5201 | 1.0000 | 0.6129 | 1.1876 | 1.0930 | 1.0172 | 1.0851 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.283            | 1.273  | 0.000  | 1.280  | 0.000  | 1.263  | 1.292  | 1.271  | 1.264  | 1.263  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 0.954            | 1.297  | 0.000  | 0.666  | 0.000  | 0.774  | 1.534  | 1.389  | 1.285  | 1.370  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | -11.00           | -10.46 | 1.00   | -9.78  | 1.00   | -9.94  | -12.09 | -10.95 | -10.40 | -10.15 |

Diagram 2.4-5

Incore Power Distributions, Cycle 1  
9000 MWD/MTU (4/23/74)

|                  | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.3758 | 0.2748 | 0.2548 | 0.2839 | 0.2904 | 0.2768 | 0.4194 | 0.3841 | 0.3931 | 0.0000 |
| 2                | 0.6064 | 0.4232 | 0.4385 | 0.4530 | 0.4483 | 0.4713 | 0.6401 | 0.6138 | 0.6418 | 0.0000 |
| 3                | 0.7829 | 0.5255 | 0.5965 | 0.6180 | 0.5926 | 0.6218 | 0.8099 | 0.7850 | 0.8023 | 0.0000 |
| 4                | 0.9812 | 0.6599 | 0.7900 | 0.8225 | 0.8133 | 0.8063 | 1.0035 | 0.9854 | 0.9888 | 0.0000 |
| 5                | 1.0960 | 0.7602 | 0.9105 | 0.9457 | 0.9356 | 0.9266 | 1.1156 | 1.1148 | 1.1071 | 0.0000 |
| 6                | 1.1537 | 0.8003 | 0.9718 | 1.0186 | 1.0052 | 0.9848 | 1.1801 | 1.1795 | 1.1673 | 0.0000 |
| 7                | 1.1879 | 0.8284 | 1.0014 | 1.0480 | 1.0222 | 1.0209 | 1.2022 | 1.1983 | 1.2034 | 0.0000 |
| 8                | 1.1795 | 0.8203 | 0.9915 | 1.0355 | 0.9797 | 1.0189 | 1.1665 | 1.1837 | 1.1834 | 0.0000 |
| 9                | 1.2028 | 0.8203 | 0.9935 | 1.0376 | 1.0137 | 1.0189 | 1.1954 | 1.1775 | 1.1854 | 0.0000 |
| 10               | 1.2180 | 0.8564 | 1.0310 | 1.0731 | 1.0341 | 1.0650 | 1.2344 | 1.2192 | 1.2395 | 0.0000 |
| 11               | 1.2626 | 0.8624 | 1.0488 | 1.0939 | 1.0511 | 1.0831 | 1.2531 | 1.2296 | 1.2616 | 0.0000 |
| 12               | 1.2626 | 0.8645 | 1.0508 | 1.0960 | 1.0680 | 1.0831 | 1.2548 | 1.2359 | 1.2616 | 0.0000 |
| 13               | 1.2817 | 0.8645 | 1.0429 | 1.0793 | 1.0426 | 1.0490 | 1.2209 | 1.2192 | 1.2275 | 0.0000 |
| 14               | 1.2109 | 0.8504 | 1.0310 | 1.0731 | 1.0562 | 1.0630 | 1.2175 | 1.2046 | 1.2054 | 0.0000 |
| 15               | 1.2944 | 0.9126 | 1.1100 | 1.1399 | 1.1105 | 1.1132 | 1.2820 | 1.2860 | 1.2836 | 0.0000 |
| 16               | 1.2944 | 0.9266 | 1.1456 | 1.1754 | 1.1309 | 1.1453 | 1.3176 | 1.3236 | 1.3218 | 0.0000 |
| 17               | 1.3674 | 0.9427 | 1.1554 | 1.1858 | 1.1394 | 1.1633 | 1.3363 | 1.3507 | 1.3438 | 0.0000 |
| 18               | 1.3674 | 0.9467 | 1.1535 | 1.1795 | 1.1343 | 1.1573 | 1.3448 | 1.3528 | 1.3478 | 0.0000 |
| 19               | 1.3570 | 0.9206 | 1.1317 | 1.1649 | 1.1377 | 1.1633 | 1.3363 | 1.3173 | 1.3238 | 0.0000 |
| 20               | 1.4405 | 1.0069 | 1.2384 | 1.2526 | 1.2022 | 1.2435 | 1.4433 | 1.4029 | 1.4421 | 0.0000 |
| 21               | 1.4927 | 1.0510 | 1.2957 | 1.3006 | 1.2497 | 1.2816 | 1.4874 | 1.4551 | 1.4842 | 0.0000 |
| 22               | 1.5103 | 1.0791 | 1.3253 | 1.3132 | 1.2701 | 1.3077 | 1.5010 | 1.4864 | 1.5083 | 0.0000 |
| 23               | 1.5303 | 1.0670 | 1.2976 | 1.3152 | 1.2684 | 1.3157 | 1.4976 | 1.4969 | 1.5063 | 0.0000 |
| 24               | 1.4509 | 0.9988 | 1.1890 | 1.2505 | 1.2276 | 1.2134 | 1.4042 | 1.4280 | 1.4080 | 0.0000 |
| 25               | 1.5031 | 1.0550 | 1.2700 | 1.3006 | 1.2582 | 1.2937 | 1.4959 | 1.4906 | 1.5003 | 0.0000 |
| 26               | 1.4092 | 0.9808 | 1.2167 | 1.2129 | 1.1869 | 1.2235 | 1.4178 | 1.4113 | 1.4040 | 0.0000 |
| 27               | 1.1795 | 0.8203 | 1.0310 | 0.9979 | 0.9916 | 1.0851 | 1.1937 | 1.1775 | 1.1834 | 0.0000 |
| 28               | 0.8351 | 0.5596 | 0.7051 | 0.7056 | 0.7199 | 0.7020 | 0.8779 | 0.8267 | 0.7922 | 0.0000 |
| 29               | 0.4739 | 0.3510 | 0.4009 | 0.4092 | 0.4058 | 0.3971 | 0.4381 | 0.4468 | 0.4413 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.2094 | 0.8399 | 1.0175 | 1.0441 | 1.0156 | 1.0342 | 1.2092 | 1.1989 | 1.2051 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.265  | 1.285  | 1.302  | 1.260  | 1.251  | 1.272  | 1.241  | 1.249  | 1.252  | 0.000  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.530  | 1.079  | 1.325  | 1.315  | 1.270  | 1.316  | 1.501  | 1.497  | 1.508  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -10.10 | -10.45 | -11.69 | -10.34 | -10.24 | -10.85 | -9.36  | -9.55  | -9.23  | 1.00   |

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 6 of 6

CYCLE: 1

## PART B - PWR STATEPOINT

EXPOSURE 12,800 MWD/MTU (EOC.1 9/10/74)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE               | SOURCE                  | COMMENTS                                           |
|---------------------------------------------------|---------------------|-------------------------|----------------------------------------------------|
| <u>PWR Statepoint Data</u>                        |                     |                         |                                                    |
| 1. Core power (MWt)                               | 2156                | NCCO<br>log sheets      | 98% power                                          |
| 2. Total core flow ( $10^6$<br>lbs/hr.)           | 100.5               | Idem                    | 99% flow                                           |
| 3. System pressure (psia)                         | 1880                | Idem                    | none                                               |
| 4. Soluble poison concentra-<br>tion (ppm)        | 101                 | Daily Water<br>Report   | none                                               |
| 5. Inlet temperature (oF)                         | 539                 | NCCO<br>log sheets      | From log sheets $T_{ave} = 566$<br>$\Delta T = 54$ |
| 6. Time at associated power<br>level (hrs)        | at least<br>92 hrs. | Idem                    | none                                               |
| 7. Xenon condition                                | equilibrium         | inferred from<br>item 6 | none                                               |
| 8. Control rod positions<br>(by location)         | all rods out        | NCCO<br>log sheet       | none                                               |
| 9. Inter-calibrated data from<br>income traverses | See diagram.        | FP&L<br>Records         | Diagram #2.4-6 attached.                           |
| Verified By: <u>RTG</u> Date: <u>5/24/76</u>      |                     |                         |                                                    |

Diagram 2.4- b

Incore Power Distributions, Cycle 1  
12,800 MDW/MTU (9/10/74)

|    | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2792 | 0.2321 | 0.5879 | 0.5566 | 0.6458 | 0.0000 | 0.0000 | 0.0000 | 0.5551 | 0.2875 |
| 2  | 0.3988 | 0.3640 | 0.8740 | 0.7959 | 0.9837 | 0.0000 | 0.0000 | 0.0000 | 0.8740 | 0.3857 |
| 3  | 0.4873 | 0.4361 | 1.0636 | 0.9814 | 1.1607 | 0.0000 | 0.0000 | 0.0000 | 1.0555 | 0.4822 |
| 4  | 0.5809 | 0.5205 | 1.2198 | 1.1392 | 1.3412 | 0.0000 | 0.0000 | 0.0000 | 1.2388 | 0.5733 |
| 5  | 0.5381 | 0.5610 | 1.3145 | 1.1999 | 1.4049 | 0.0000 | 0.0000 | 0.0000 | 1.3128 | 0.6224 |
| 6  | 0.5554 | 0.5715 | 1.3216 | 1.2086 | 1.4102 | 0.0000 | 0.0000 | 0.0000 | 1.3304 | 0.6417 |
| 7  | 0.5554 | 0.5645 | 1.3093 | 1.1965 | 1.3730 | 0.0000 | 0.0000 | 0.0000 | 1.3058 | 0.6400 |
| 8  | 0.5294 | 0.5364 | 1.2426 | 1.1392 | 1.2898 | 0.0000 | 0.0000 | 0.0000 | 1.2423 | 0.6154 |
| 9  | 0.5086 | 0.5311 | 1.2145 | 1.0785 | 1.2350 | 0.0000 | 0.0000 | 0.0000 | 1.2247 | 0.6014 |
| 10 | 0.5190 | 0.5399 | 1.2303 | 1.1028 | 1.2474 | 0.0000 | 0.0000 | 0.0000 | 1.2370 | 0.6101 |
| 11 | 0.5173 | 0.5399 | 1.2303 | 1.1028 | 1.2350 | 0.0000 | 0.0000 | 0.0000 | 1.2318 | 0.6101 |
| 12 | 0.5104 | 0.5311 | 1.2110 | 1.0889 | 1.2251 | 0.0000 | 0.0000 | 0.0000 | 1.2194 | 0.5996 |
| 13 | 0.5955 | 0.5205 | 1.1724 | 1.0595 | 1.1951 | 0.0000 | 0.0000 | 0.0000 | 1.1789 | 0.5803 |
| 14 | 0.5722 | 0.5082 | 1.1197 | 0.9918 | 1.1642 | 0.0000 | 0.0000 | 0.0000 | 1.1507 | 0.5558 |
| 15 | 0.5121 | 0.5329 | 1.1864 | 1.0647 | 1.2244 | 0.0000 | 0.0000 | 0.0000 | 1.2000 | 0.5821 |
| 16 | 0.5277 | 0.5417 | 1.2022 | 1.0837 | 1.2385 | 0.0000 | 0.0000 | 0.0000 | 1.2247 | 0.5926 |
| 17 | 0.5381 | 0.5434 | 1.2127 | 1.0872 | 1.2527 | 0.0000 | 0.0000 | 0.0000 | 1.2511 | 0.5979 |
| 18 | 0.5242 | 0.5346 | 1.2005 | 1.0785 | 1.2350 | 0.0000 | 0.0000 | 0.0000 | 1.2335 | 0.5891 |
| 19 | 0.5913 | 0.5170 | 1.1548 | 1.0161 | 1.2120 | 0.0000 | 0.0000 | 0.0000 | 1.2141 | 0.5681 |
| 20 | 0.5329 | 0.5522 | 1.2636 | 1.1254 | 1.3154 | 0.0000 | 0.0000 | 0.0000 | 1.3040 | 0.6137 |
| 21 | 0.5520 | 0.5751 | 1.3110 | 1.1722 | 1.3624 | 0.0000 | 0.0000 | 0.0000 | 1.3533 | 0.6294 |
| 22 | 0.5693 | 0.5803 | 1.3461 | 1.1999 | 1.4013 | 0.0000 | 0.0000 | 0.0000 | 1.3904 | 0.6417 |
| 23 | 0.5728 | 0.5803 | 1.3567 | 1.2086 | 1.4208 | 0.0000 | 0.0000 | 0.0000 | 1.4097 | 0.6400 |
| 24 | 0.5520 | 0.5540 | 1.2830 | 1.1375 | 1.3677 | 0.0000 | 0.0000 | 0.0000 | 1.3304 | 0.6137 |
| 25 | 0.5953 | 0.5874 | 1.4093 | 1.2554 | 1.5128 | 0.0000 | 0.0000 | 0.0000 | 1.4485 | 0.6627 |
| 26 | 0.5711 | 0.5610 | 1.3812 | 1.2485 | 1.4852 | 0.0000 | 0.0000 | 0.0000 | 1.4115 | 0.6364 |
| 27 | 0.5587 | 0.4819 | 1.1952 | 1.1028 | 1.3005 | 0.0000 | 0.0000 | 0.0000 | 1.2300 | 0.5505 |
| 28 | 0.3728 | 0.3218 | 0.8354 | 0.7994 | 0.8988 | 0.0000 | 0.0000 | 0.0000 | 0.8370 | 0.3770 |
| 29 | 0.2549 | 0.2075 | 0.4879 | 0.5185 | 0.6016 | 0.0000 | 0.0000 | 0.0000 | 0.5251 | 0.2349 |

| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |  |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| 0.5935           | 0.5146 | 1.1928 | 1.0787 | 1.2543 | 1.0000 | 1.0000 | 1.0000 | 1.2136 | 0.5741 |  |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |  |
| 1.172            | 1.141  | 1.181  | 1.164  | 1.205  | 0.000  | 0.000  | 0.000  | 1.194  | 1.154  |  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |  |
| 0.595            | 0.587  | 1.409  | 1.255  | 1.513  | 0.000  | 0.000  | 0.000  | 1.449  | 0.663  |  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |  |
| -2.33            | -1.34  | -1.73  | -1.36  | -2.04  | 1.00   | 1.00   | 1.00   | -3.01  | -1.05  |  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4-6

Incore Power Distributions, Cycle 1  
12,800 MWD/MTU (9/10/74)

|                  | 11 L 9 | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.3359 | 0.4427 | 0.4900 | 0.6064 | 0.0000 | 0.3936 | 0.0000 | 0.0000 | 0.6876 |
| 2                | 0.0000 | 0.5065 | 0.7027 | 0.6585 | 0.9313 | 0.0000 | 0.5823 | 0.0000 | 0.0000 | 0.9767 |
| 3                | 0.0000 | 0.6261 | 0.8310 | 0.8392 | 1.1050 | 0.0000 | 0.7189 | 0.0000 | 0.0000 | 1.1383 |
| 4                | 0.0000 | 0.7474 | 1.0190 | 0.9904 | 1.2805 | 0.0000 | 0.8698 | 0.0000 | 0.0000 | 1.2998 |
| 5                | 0.0000 | 0.8072 | 1.1068 | 1.0842 | 1.3535 | 0.0000 | 0.9381 | 0.0000 | 0.0000 | 1.3573 |
| 6                | 0.0000 | 0.8371 | 1.1332 | 1.1189 | 1.3674 | 0.0000 | 0.9579 | 0.0000 | 0.0000 | 1.3591 |
| 7                | 0.0000 | 0.8265 | 1.1209 | 1.1207 | 1.3518 | 0.0000 | 0.9489 | 0.0000 | 0.0000 | 1.3304 |
| 8                | 0.0000 | 0.7949 | 1.0471 | 1.0859 | 1.2708 | 0.0000 | 0.8968 | 0.0000 | 0.0000 | 1.2478 |
| 9                | 0.0000 | 0.7720 | 1.0348 | 1.0251 | 1.2284 | 0.0000 | 0.8896 | 0.0000 | 0.0000 | 1.2101 |
| 10               | 0.0000 | 0.7791 | 1.0453 | 1.0494 | 1.2493 | 0.0000 | 0.9022 | 0.0000 | 0.0000 | 1.2172 |
| 11               | 0.0000 | 0.7755 | 1.0436 | 1.0494 | 1.2475 | 0.0000 | 0.8950 | 0.0000 | 0.0000 | 1.2119 |
| 12               | 0.0000 | 0.7568 | 1.0313 | 1.0425 | 1.2257 | 0.0000 | 0.8788 | 0.0000 | 0.0000 | 1.1957 |
| 13               | 0.0000 | 0.7492 | 0.9856 | 1.0216 | 1.1798 | 0.0000 | 0.8537 | 0.0000 | 0.0000 | 1.1490 |
| 14               | 0.0000 | 0.7263 | 0.9926 | 0.9713 | 1.1242 | 0.0000 | 0.8393 | 0.0000 | 0.0000 | 1.1059 |
| 15               | 0.0000 | 0.7550 | 1.0277 | 1.0321 | 1.1857 | 0.0000 | 0.8788 | 0.0000 | 0.0000 | 1.1598 |
| 16               | 0.0000 | 0.7755 | 1.0436 | 1.0477 | 1.2197 | 0.0000 | 0.8986 | 0.0000 | 0.0000 | 1.1670 |
| 17               | 0.0000 | 0.7808 | 1.0523 | 1.0599 | 1.2354 | 0.0000 | 0.9058 | 0.0000 | 0.0000 | 1.1795 |
| 18               | 0.0000 | 0.7703 | 1.0330 | 1.0547 | 1.2128 | 0.0000 | 0.8914 | 0.0000 | 0.0000 | 1.1724 |
| 19               | 0.0000 | 0.7492 | 1.0436 | 1.0251 | 1.1659 | 0.0000 | 0.8698 | 0.0000 | 0.0000 | 1.1185 |
| 20               | 0.0000 | 0.8090 | 1.1138 | 1.1120 | 1.2545 | 0.0000 | 0.9399 | 0.0000 | 0.0000 | 1.2298 |
| 21               | 0.0000 | 0.8353 | 1.1525 | 1.1537 | 1.2979 | 0.0000 | 0.9633 | 0.0000 | 0.0000 | 1.2639 |
| 22               | 0.0000 | 0.8459 | 1.1753 | 1.1780 | 1.3379 | 0.0000 | 0.9813 | 0.0000 | 0.0000 | 1.2927 |
| 23               | 0.0000 | 0.8441 | 1.1718 | 1.1832 | 1.3587 | 0.0000 | 0.9884 | 0.0000 | 0.0000 | 1.3160 |
| 24               | 0.0000 | 0.8054 | 1.1472 | 1.1137 | 1.3049 | 0.0000 | 0.9417 | 0.0000 | 0.0000 | 1.2496 |
| 25               | 0.0000 | 0.8793 | 1.2017 | 1.2058 | 1.4126 | 0.0000 | 1.0118 | 0.0000 | 0.0000 | 1.3986 |
| 26               | 0.0000 | 0.8389 | 1.1507 | 1.1711 | 1.3848 | 0.0000 | 0.9669 | 0.0000 | 0.0000 | 1.3788 |
| 27               | 0.0000 | 0.7228 | 0.9733 | 1.0164 | 1.2093 | 0.0000 | 0.8411 | 0.0000 | 0.0000 | 1.2119 |
| 28               | 0.0000 | 0.5012 | 0.6465 | 0.7315 | 0.8531 | 0.0000 | 0.5931 | 0.0000 | 0.0000 | 0.8546 |
| 29               | 0.0000 | 0.3429 | 0.4252 | 0.4674 | 0.5056 | 0.0000 | 0.4008 | 0.0000 | 0.0000 | 0.5027 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 0.7492 | 1.0164 | 1.0222 | 1.2112 | 1.0000 | 0.8657 | 1.0000 | 1.0000 | 1.1924 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.174  | 1.182  | 1.180  | 1.166  | 0.000  | 1.169  | 0.000  | 0.000  | 1.173  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.879  | 1.202  | 1.206  | 1.413  | 0.000  | 1.012  | 0.000  | 0.000  | 1.399  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | -2.13  | -2.82  | -3.44  | -0.80  | 1.00   | -2.58  | 1.00   | 1.00   | 0.17   |

## Diagram 2.4-6

Incore Power Distributions, Cycle 1  
12,800 MWD/MTU (9/10/74)

|                  | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 O 7 | 30 L14 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.5165 | 0.4190 | 0.5422 | 0.6846 | 0.4859 | 0.4713 | 0.2855 | 0.6974 | 0.5177 | 0.2878 |
| 2                | 0.7431 | 0.5721 | 0.8010 | 0.9209 | 0.7904 | 0.6908 | 0.4035 | 0.9427 | 0.7863 | 0.3760 |
| 3                | 0.9259 | 0.7077 | 0.9823 | 1.1276 | 0.9436 | 0.8509 | 0.4987 | 1.1323 | 0.9390 | 0.4659 |
| 4                | 1.0787 | 0.8485 | 1.1355 | 1.2962 | 1.0985 | 1.0128 | 0.5921 | 1.2905 | 1.1320 | 0.5523 |
| 5                | 1.1630 | 0.9348 | 1.2129 | 1.3691 | 1.1742 | 1.0938 | 0.6485 | 1.3618 | 1.2163 | 0.6045 |
| 6                | 1.1876 | 0.9612 | 1.2252 | 1.3778 | 1.1918 | 1.1262 | 0.6679 | 1.3671 | 1.2180 | 0.6153 |
| 7                | 1.1665 | 0.9594 | 1.2094 | 1.3466 | 1.1812 | 1.1136 | 0.6643 | 1.3427 | 1.1899 | 0.6081 |
| 8                | 1.1050 | 0.9154 | 1.1425 | 1.2788 | 1.1256 | 1.0560 | 0.6361 | 1.2714 | 1.1057 | 0.5771 |
| 9                | 1.0599 | 0.8890 | 1.0844 | 1.2423 | 1.1002 | 1.0362 | 0.6185 | 1.1983 | 1.0741 | 0.5739 |
| 10               | 1.0787 | 0.9101 | 1.0967 | 1.2753 | 1.1256 | 1.0506 | 0.6291 | 1.2157 | 1.0794 | 0.5793 |
| 11               | 1.0654 | 0.9136 | 1.0914 | 1.2649 | 1.1249 | 1.0542 | 0.6273 | 1.1896 | 1.0588 | 0.5775 |
| 12               | 1.0471 | 0.9084 | 1.0791 | 1.2406 | 1.1108 | 1.0488 | 0.6238 | 1.1688 | 1.0548 | 0.5703 |
| 13               | 1.0225 | 0.8855 | 1.0545 | 1.1902 | 1.0809 | 1.0236 | 0.6097 | 1.1427 | 1.0232 | 0.5523 |
| 14               | 0.9873 | 0.8591 | 1.0175 | 1.1155 | 1.0598 | 0.9876 | 0.5850 | 1.0940 | 1.0214 | 0.5451 |
| 15               | 1.0488 | 0.9084 | 1.0721 | 1.1711 | 1.1126 | 1.0362 | 0.6203 | 1.1705 | 1.0794 | 0.5549 |
| 16               | 1.0594 | 0.9189 | 1.0756 | 1.1884 | 1.1337 | 1.0506 | 0.6344 | 1.1862 | 1.1022 | 0.5739 |
| 17               | 1.0682 | 0.9295 | 1.0862 | 1.1989 | 1.1425 | 1.0542 | 0.6379 | 1.1949 | 1.1022 | 0.5775 |
| 18               | 1.0523 | 0.9260 | 1.0844 | 1.2058 | 1.1390 | 1.0470 | 0.6273 | 1.1879 | 1.0776 | 0.5703 |
| 19               | 1.0172 | 0.9066 | 1.0580 | 1.1606 | 1.1038 | 1.0146 | 0.6027 | 1.1409 | 1.0530 | 0.5649 |
| 20               | 1.1103 | 0.9823 | 1.1566 | 1.2510 | 1.1953 | 1.0920 | 0.6520 | 1.2366 | 1.1268 | 0.6063 |
| 21               | 1.1542 | 1.0140 | 1.2059 | 1.2840 | 1.2305 | 1.1298 | 0.6925 | 1.2818 | 1.1589 | 0.6296 |
| 22               | 1.1758 | 1.0421 | 1.2411 | 1.3101 | 1.2481 | 1.1513 | 0.6890 | 1.3114 | 1.1899 | 0.6368 |
| 23               | 1.1859 | 1.0492 | 1.2499 | 1.3222 | 1.2587 | 1.1729 | 0.6872 | 1.3323 | 1.1899 | 0.6350 |
| 24               | 1.1050 | 1.0017 | 1.1759 | 1.2927 | 1.1795 | 1.0902 | 0.6520 | 1.2731 | 1.1671 | 0.6099 |
| 25               | 1.2228 | 1.0774 | 1.3044 | 1.3952 | 1.3256 | 1.2125 | 0.7049 | 1.3949 | 1.2426 | 0.6458 |
| 26               | 1.1929 | 1.0298 | 1.2816 | 1.3639 | 1.3027 | 1.1747 | 0.6767 | 1.3897 | 1.1970 | 0.6188 |
| 27               | 1.0436 | 0.8767 | 1.1266 | 1.1937 | 1.1256 | 1.0182 | 0.5833 | 1.2366 | 1.0320 | 0.5343 |
| 28               | 0.7361 | 0.6003 | 0.7869 | 0.8583 | 0.7464 | 0.7178 | 0.4000 | 0.8801 | 0.6950 | 0.3616 |
| 29               | 0.4743 | 0.4084 | 0.5105 | 0.5160 | 0.4876 | 0.4641 | 0.2573 | 0.3061 | 0.4651 | 0.2357 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0459 | 0.8908 | 1.0916 | 1.2086 | 1.1015 | 1.0205 | 0.6049 | 1.1977 | 1.0651 | 0.5566 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.168  | 1.209  | 1.195  | 1.154  | 1.203  | 1.188  | 1.165  | 1.165  | 1.167  | 1.160  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.223  | 1.077  | 1.304  | 1.395  | 1.326  | 1.213  | 0.705  | 1.395  | 1.243  | 0.646  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -1.58  | -4.35  | -2.24  | 0.31   | -3.32  | -2.72  | -2.49  | -0.69  | -1.37  | -2.22  |

## Diagram 2.4-6

Incore Power Distributions, Cycle 1  
12,800 MWD/MTU (9/10/74)

|                  | 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.3524 | 0.5502 | 0.0000 | 0.2421 | 0.0000 | 0.2884 | 0.6337 | 0.9703 | 0.5014 | 0.5996 |
| 2                | 0.5103 | 0.7898 | 0.0000 | 0.3641 | 0.0000 | 0.4344 | 0.9823 | 0.8077 | 0.6901 | 0.7792 |
| 3                | 0.5283 | 0.9703 | 0.0000 | 0.4502 | 0.0000 | 0.5293 | 1.1425 | 0.9984 | 0.8508 | 0.9408 |
| 4                | 0.7520 | 1.1265 | 0.0000 | 0.5937 | 0.0000 | 0.6243 | 1.3150 | 1.1621 | 1.0280 | 1.1077 |
| 5                | 0.8245 | 1.1820 | 0.0000 | 0.5883 | 0.0000 | 0.6753 | 1.3889 | 1.2215 | 1.1250 | 1.1921 |
| 6                | 0.8366 | 1.1890 | 0.0000 | 0.6026 | 0.0000 | 0.6841 | 1.3889 | 1.2269 | 1.1484 | 1.2065 |
| 7                | 0.8262 | 1.1786 | 0.0000 | 0.5973 | 0.0000 | 0.6753 | 1.3555 | 1.2071 | 1.1376 | 1.1957 |
| 8                | 0.7846 | 1.1265 | 0.0000 | 0.5668 | 0.0000 | 0.6437 | 1.2657 | 1.1424 | 1.0783 | 1.1257 |
| 9                | 0.7828 | 1.0831 | 0.0000 | 0.5524 | 0.0000 | 0.6225 | 1.2340 | 1.1028 | 1.0477 | 1.0880 |
| 10               | 0.7932 | 1.1022 | 0.0000 | 0.5596 | 0.0000 | 0.6278 | 1.2516 | 1.1172 | 1.0557 | 1.1077 |
| 11               | 0.7932 | 1.0953 | 0.0000 | 0.5542 | 0.0000 | 0.6243 | 1.2428 | 1.1028 | 1.0557 | 1.1059 |
| 12               | 0.7811 | 1.0779 | 0.0000 | 0.5470 | 0.0000 | 0.6190 | 1.2235 | 1.0902 | 1.0477 | 1.0934 |
| 13               | 0.7533 | 1.0449 | 0.0000 | 0.5327 | 0.0000 | 0.6050 | 1.1777 | 1.0596 | 1.0172 | 1.0521 |
| 14               | 0.7342 | 0.9894 | 0.0000 | 0.5183 | 0.0000 | 0.5944 | 1.1495 | 1.0236 | 0.9866 | 1.0323 |
| 15               | 0.7672 | 1.0397 | 0.0000 | 0.5470 | 0.0000 | 0.6243 | 1.1918 | 1.0830 | 1.0459 | 1.0718 |
| 16               | 0.7811 | 1.0501 | 0.0000 | 0.5524 | 0.0000 | 0.6366 | 1.2129 | 1.1064 | 1.0711 | 1.0934 |
| 17               | 0.7846 | 1.0571 | 0.0000 | 0.5488 | 0.0000 | 0.6419 | 1.2288 | 1.1046 | 1.0747 | 1.0970 |
| 18               | 0.7707 | 1.0571 | 0.0000 | 0.5345 | 0.0000 | 0.6366 | 1.2235 | 1.0830 | 1.0503 | 1.0844 |
| 19               | 0.7537 | 1.0137 | 0.0000 | 0.5237 | 0.0000 | 0.6243 | 1.1689 | 1.0128 | 1.0064 | 1.0377 |
| 20               | 0.8245 | 1.1057 | 0.0000 | 0.5703 | 0.0000 | 0.6735 | 1.2728 | 1.1280 | 1.0945 | 1.1365 |
| 21               | 0.8592 | 1.1456 | 0.0000 | 0.5937 | 0.0000 | 0.6947 | 1.3115 | 1.1639 | 1.1376 | 1.1795 |
| 22               | 0.9748 | 1.1820 | 0.0000 | 0.6044 | 0.0000 | 0.7070 | 1.3432 | 1.1945 | 1.1610 | 1.2047 |
| 23               | 0.8609 | 1.1994 | 0.0000 | 0.6044 | 0.0000 | 0.7034 | 1.3678 | 1.2053 | 1.1789 | 1.2119 |
| 24               | 0.8227 | 1.1421 | 0.0000 | 0.5775 | 0.0000 | 0.6788 | 1.2833 | 1.1082 | 1.1286 | 1.1293 |
| 25               | 0.9887 | 1.2549 | 0.0000 | 0.6116 | 0.0000 | 0.7281 | 1.4347 | 1.2503 | 1.2329 | 1.2532 |
| 26               | 0.8557 | 1.2393 | 0.0000 | 0.5793 | 0.0000 | 0.7034 | 1.4066 | 1.2251 | 1.1843 | 1.2280 |
| 27               | 0.7377 | 1.0883 | 0.0000 | 0.4986 | 0.0000 | 0.6032 | 1.2323 | 1.0848 | 0.9992 | 1.0826 |
| 28               | 0.5016 | 0.7533 | 0.0000 | 0.3444 | 0.0000 | 0.4045 | 0.8626 | 0.7844 | 0.6991 | 0.7738 |
| 29               | 0.3541 | 0.4843 | 0.0000 | 0.2152 | 0.0000 | 0.2620 | 0.5052 | 0.5199 | 0.4421 | 0.4829 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 0.7592 | 1.0643 | 1.0000 | 0.5338 | 1.0000 | 0.6177 | 1.2224 | 1.0836 | 1.0302 | 1.0769 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.171  | 1.179  | 0.000  | 1.146  | 0.000  | 1.179  | 1.174  | 1.154  | 1.197  | 1.164  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.889  | 1.255  | 0.000  | 0.612  | 0.000  | 0.728  | 1.435  | 1.250  | 1.233  | 1.253  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -2.43  | -1.01  | 1.00   | -0.69  | 1.00   | -2.68  | -0.49  | -0.54  | -2.43  | -1.41  |

Diagram 2.4-6

Incore Power Distributions, Cycle 1  
12,800 MWD/MTU (9/10/74)

|                  | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.5149 | 0.4317 | 0.4524 | 0.4957 | 0.5618 | 0.5078 | 0.5985 | 0.6019 | 0.5844 | 0.0000 |
| 2                | 0.8557 | 0.5974 | 0.7208 | 0.7392 | 0.7095 | 0.7714 | 0.8698 | 0.8234 | 0.8943 | 0.0000 |
| 3                | 1.0809 | 0.7313 | 0.8890 | 0.9131 | 0.8806 | 0.9431 | 1.0603 | 1.0275 | 1.0774 | 0.0000 |
| 4                | 1.2455 | 0.8740 | 1.0545 | 1.0714 | 1.0589 | 1.1076 | 1.2275 | 1.1950 | 1.2516 | 0.0000 |
| 5                | 1.3217 | 0.9428 | 1.1249 | 1.1462 | 1.1543 | 1.1731 | 1.3209 | 1.2910 | 1.3309 | 0.0000 |
| 6                | 1.3408 | 0.9621 | 1.1337 | 1.1670 | 1.1687 | 1.1837 | 1.3353 | 1.3136 | 1.3520 | 0.0000 |
| 7                | 1.3286 | 0.9569 | 1.1196 | 1.1618 | 1.1435 | 1.1678 | 1.3191 | 1.2997 | 1.3344 | 0.0000 |
| 8                | 1.2801 | 0.9199 | 1.0686 | 1.1096 | 1.0751 | 1.1129 | 1.2508 | 1.2526 | 1.2798 | 0.0000 |
| 9                | 1.2264 | 0.9146 | 1.0404 | 1.0609 | 1.0319 | 1.1058 | 1.2203 | 1.1688 | 1.2464 | 0.0000 |
| 10               | 1.2593 | 0.9128 | 1.0545 | 1.0801 | 1.0499 | 1.1218 | 1.2454 | 1.2072 | 1.2728 | 0.0000 |
| 11               | 1.2541 | 0.9075 | 1.0474 | 1.0801 | 1.0499 | 1.1164 | 1.2382 | 1.2055 | 1.2763 | 0.0000 |
| 12               | 1.2282 | 0.8952 | 1.0351 | 1.0596 | 1.0445 | 1.1058 | 1.2203 | 1.1950 | 1.2499 | 0.0000 |
| 13               | 1.1918 | 0.8793 | 1.0140 | 1.0436 | 1.0175 | 1.0634 | 1.1771 | 1.1654 | 1.1988 | 0.0000 |
| 14               | 1.1277 | 0.8635 | 0.9911 | 1.0053 | 0.9850 | 1.0315 | 1.1286 | 1.1008 | 1.1554 | 0.0000 |
| 15               | 1.2039 | 0.9128 | 1.0474 | 1.0662 | 1.0445 | 1.0881 | 1.1933 | 1.1845 | 1.2305 | 0.0000 |
| 16               | 1.2247 | 0.9251 | 1.0686 | 1.0905 | 1.0481 | 1.1111 | 1.2149 | 1.2159 | 1.2552 | 0.0000 |
| 17               | 1.2334 | 0.9287 | 1.0703 | 1.0922 | 1.0553 | 1.1200 | 1.2203 | 1.2369 | 1.2622 | 0.0000 |
| 18               | 1.2195 | 0.9181 | 1.0615 | 1.0783 | 1.0409 | 1.1164 | 1.2185 | 1.2334 | 1.2622 | 0.0000 |
| 19               | 1.1589 | 0.8952 | 1.0228 | 1.0401 | 0.9922 | 1.0651 | 1.1664 | 1.1514 | 1.2147 | 0.0000 |
| 20               | 1.2593 | 0.9727 | 1.1231 | 1.1270 | 1.0823 | 1.1801 | 1.2706 | 1.2561 | 1.3325 | 0.0000 |
| 21               | 1.2975 | 1.0150 | 1.1724 | 1.1618 | 1.1237 | 1.2261 | 1.3245 | 1.3049 | 1.3766 | 0.0000 |
| 22               | 1.3356 | 1.0379 | 1.2059 | 1.1862 | 1.1525 | 1.2562 | 1.3515 | 1.3520 | 1.4101 | 0.0000 |
| 23               | 1.3512 | 1.0414 | 1.1971 | 1.1949 | 1.1741 | 1.2739 | 1.3587 | 1.3799 | 1.4277 | 0.0000 |
| 24               | 1.2715 | 0.9974 | 1.1108 | 1.1636 | 1.0957 | 1.1819 | 1.2760 | 1.2875 | 1.3467 | 0.0000 |
| 25               | 1.3789 | 1.0749 | 1.2305 | 1.2505 | 1.2245 | 1.3235 | 1.4269 | 1.4375 | 1.4946 | 0.0000 |
| 26               | 1.3477 | 1.0326 | 1.2305 | 1.2192 | 1.2155 | 1.2881 | 1.3964 | 1.4218 | 1.4541 | 0.0000 |
| 27               | 1.1797 | 0.8864 | 1.0809 | 1.0592 | 1.0679 | 1.1253 | 1.2257 | 1.2491 | 1.2745 | 0.0000 |
| 28               | 0.8038 | 0.6132 | 0.7376 | 0.7340 | 0.7689 | 0.7980 | 0.8680 | 0.9072 | 0.8890 | 0.0000 |
| 29               | 0.5110 | 0.4141 | 0.4612 | 0.4609 | 0.4988 | 0.4211 | 0.5266 | 0.5338 | 0.5140 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.1989 | 0.8940 | 1.0399 | 1.0568 | 1.0352 | 1.0937 | 1.2031 | 1.1940 | 1.2396 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.150  | 1.202  | 1.183  | 1.183  | 1.183  | 1.210  | 1.186  | 1.204  | 1.206  | 0.000  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.379  | 1.075  | 1.231  | 1.251  | 1.225  | 1.323  | 1.427  | 1.438  | 1.495  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -0.80  | -3.89  | -3.49  | -2.47  | -2.21  | -3.33  | -1.98  | -3.45  | -2.98  | 1.00   |

REACTOR: Turkey Point 3

CYCLE: 1

EXPOSURE 0 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART C - PWR HOT-ZERO-POWER DATA

Sheet 1 of 5

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                     | VALUE                                   | SOURCE                                                                                  | COMMENTS                              |
|-------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------|
| <u>PWR HZP Data</u> Data Set #1                 |                                         |                                                                                         |                                       |
| 1. Moderator temperature (oF)                   | 547                                     | Summary Report of Turkey Point Unit 3 Nuclear Power Plant Start-up Physics Measurements | none                                  |
|                                                 |                                         |                                                                                         |                                       |
| 2. Soluble poison concentration (ppm)           | 1184                                    | Idem                                                                                    | none                                  |
| 3. Control rod configuration                    | All rods out except Bank 9 at 154 steps | Idem                                                                                    | 228 steps is fully withdrawn position |
| 4. Method of measurement                        | Inverse Count Rate Ratio                | Idem                                                                                    | none                                  |
| 5. Type of measurement (rod worth or ppm worth) | Initial Criticality                     | Idem                                                                                    | none                                  |
| 6. Incore traces (if available)                 | Not available                           | Idem                                                                                    | none                                  |
| 7. System Pressure (psia)                       | 2235                                    | Idem                                                                                    | none                                  |
| 8. Measured data                                | Initial Criticality                     | Idem                                                                                    | none                                  |

Verified By: AK Date: 5/26/76

REACTOR: Turkey Point 3

CYCLE: 1

EXPOSURE 0 MWD/MTU

## TABLE 2.4 PWR OPERATING DATA

## PART C - PWR HOT-ZERO-POWER DATA

Sheet 2 of 5Rev. 1 Date: 4/5/77

| ITEM (Unit)                                        | VALUE                  | SOURCE                                                                                             | COMMENTS       |
|----------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------|----------------|
| <u>PWR HZP Data</u> Data Set #2                    |                        |                                                                                                    |                |
| 1. Moderator temperature (oF)                      | 547                    | Summary Report of<br>Turkey Point Unit 3<br>Nuclear Power Plant<br>Start-up Physics<br>Measurement | none           |
| 2. Soluble poison concentration<br>(ppm)           | See table              | Idem                                                                                               | none           |
| 3. Control rod configuration                       | See table              | Idem                                                                                               | none           |
| 4. Method of measurement                           | reactivity<br>computer | Idem                                                                                               | see note below |
| 5. Type of measurement (rod<br>worth or ppm worth) | soluble boron<br>worth | Idem                                                                                               | none           |
| 6. Incore traces (if available)                    | not available          | Idem                                                                                               | none           |

Note: The measurement technique was to dilute control rods into the core and borate them out of the core while their worth was measured by the reactivity computer. Boron samples were taken at fifteen minute intervals. The boron worth was determined by relating the rod bank reactivity to the corresponding boron change.

Verified By: AKY Date: 5/26/76

REACTOR: Turkey Point 3

CYCLE: 1

EXPOSURE 0 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART C - PWR HOT-ZERO-POWER DATA

Sheet 3 of 5

Rev. 0 Date: 4/28/76

| ITEM (Unit)               | VALUE                             | SOURCE | COMMENTS        |
|---------------------------|-----------------------------------|--------|-----------------|
| 7. System Pressure (psia) | 2235                              | Idem   | none            |
| 8. Measured data          | Soluble Boron<br>Reactivity worth |        | See table below |
|                           |                                   |        |                 |
|                           |                                   |        |                 |
|                           |                                   |        |                 |

| <u>Configuration Change</u>               | <u>Reactivity Change<br/>(PCM)</u> | <u>Boron Change<br/>(PPM)</u> | <u>Measured Boron Worth<br/>(PCM/PPM)</u> |
|-------------------------------------------|------------------------------------|-------------------------------|-------------------------------------------|
| from all-rods-out to D in                 | 894                                | 63.6                          | 14.1                                      |
| from D in to C and D in                   | 1496                               | 124.3                         | 12.0                                      |
| From C and D in to B, C and D in          | 1055                               | 68.3                          | 15.4                                      |
| from B, C and D in to<br>A, B, C and D in | 1856                               | 152.8                         | 12.1                                      |

Verified By: ATY Date: 5/26/76

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 4 of 5

CYCLE: 1

## PART C - PWR HOT-ZERO-POWER DATA

Rev. 1 Date: 4/5/77

EXPOSURE 0 MWD/MTU

| ITEM (Unit)                                        | VALUE                  | SOURCE                                                  | COMMENTS       |
|----------------------------------------------------|------------------------|---------------------------------------------------------|----------------|
| <u>PWR HZP Data</u> Data Set #3                    |                        |                                                         |                |
| 1. Moderator temperature (oF)                      | 547                    | Summary Report of<br>Turkey Point Unit 3                | none           |
|                                                    |                        | Nuclear Power Plant<br>Start-up Physics<br>Measurements |                |
| 2. Soluble poison concentration<br>(ppm)           | see table              | Idem                                                    | none           |
| 3. Control rod configuration                       | See table<br>below     | Idem                                                    | none           |
| 4. Method of measurement                           | reactivity<br>computer | Idem                                                    | see note below |
| 5. Type of measurement (rod<br>worth or ppm worth) | rod<br>worth           | Idem                                                    | none           |
| 6. Incore traces (if<br>available)                 | not available          | Idem                                                    | none           |

Note: The measurement technique was to dilute control rods into and borate them out of the core while their worth was recorded by the reactivity computer.

Verified By: AFJ Date: 5/26/76

REACTOR: Turkey Point 3

TABLE 2.4 PWR OPERATING DATA

Sheet 5 of 5

CYCLE: 1

PART C - PWR HOT-ZERO-POWER DATA

Rev. 0 Date: 4/28/76

EXPOSURE 0 MWD/MTU

| ITEM (Unit)               | VALUE                            | SOURCE | COMMENTS        |
|---------------------------|----------------------------------|--------|-----------------|
| 7. System Pressure (psia) | 2235                             | Idem   | none            |
| 8. Measured data          | RCC Bank Reactivity Measurements | Idem   | See table below |
|                           |                                  |        |                 |
|                           |                                  |        |                 |
|                           |                                  |        |                 |

Bank

Measured Worth - PCM

Rod Positions

D

894

All other Banks fully withdrawn

C

1496

Bank D fully inserted, all others out

B

1002

Banks C and D fully inserted, all others out

A

1856

Banks B, C, D fully inserted, all others out

Verified By: ALG Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 1

TABLE 2.4 PWR OPERATING DATA

PART D - PWR TRANSIENT DATA

Sheet 1 of 1

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                                                                                                                    | VALUE | SOURCE         | COMMENTS |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|----------|
| <u>PWR Transient Data</u><br>Conditions during the transient (in time intervals sufficient to monitor the Xenon transient also time-zero data) |       |                |          |
|                                                                                                                                                |       |                |          |
|                                                                                                                                                |       |                |          |
| 1. Core power (MWT)                                                                                                                            |       | NONE AVAILABLE |          |
| 2. Inlet temperature ( $^{\circ}\text{F}$ )                                                                                                    |       |                |          |
| 3. Soluble poison concentration (ppm)                                                                                                          |       |                |          |
| 4. System pressure (psia)                                                                                                                      |       |                |          |
| 5. Total core flow ( $10^6$ lbs/hr)                                                                                                            |       |                |          |
| 6. Control rod positions (by location)                                                                                                         |       |                |          |
|                                                                                                                                                |       |                |          |

Verified By: ATG Date: 5/26/76

## PWR CYCLE 2 DATA

### Contents

#### Tables

|             |                                                     |
|-------------|-----------------------------------------------------|
| 2.1         | PWR Reference Design Parameters at Rated Conditions |
| 2.2         | PWR Core and Component Description                  |
| 2.3         | PWR Average Assembly Fuel Loading                   |
| 2.4, Part A | PWR History                                         |
| 2.4, Part B | PWR Statepoint                                      |
| 2.4, Part C | PWR Hot-Zero-Power Data                             |
| 2.4, Part D | PWR Transient Data                                  |

#### Diagrams

|        |                                                   |
|--------|---------------------------------------------------|
| 2.2-1  | Fuel Assembly Type Locations                      |
| 2.2-2  | Pattern of Control Rod Banks                      |
| 2.2-3  | In-Core Detector Locations                        |
| 2.2-4  | Thermocouple Locations                            |
| 2.2-5  | Core Layout, Reactor Core Cross Section           |
| 2.2-6  | Core Layout, Reactor Vessel Internals             |
| 2.2-7  | Location of Primary and Secondary Sources         |
| 2.2-8  | Assembly Layout                                   |
| 2.2-8A | Assembly-wise Burnable Poison Rod Locations       |
| 2.2-9  | Spacer Grid Location                              |
| 2.2-10 | Burnable Poison Rod                               |
| 2.4-1  | Boron Letdown Curve and Histogram, Cycle 2        |
| 2.4-2  | In-Core Power Distribution, Cycle 2, 60 MWD/MTU   |
| 2.4-3  | In-Core Power Distribution, Cycle 2, 2380 MWD/MTU |
| 2.4-4  | In-Core Power Distribution, Cycle 2, 4680 MWD/MTU |
| 2.4-5  | In-Core Power Distribution, Cycle 2, 6120 MWD/MTU |
| 2.4.6  | In-Core Power Distribution, Cycle 2, 8690 MWD/MTU |
| 2.4.7  | Cycle 2 Transient 4/5/75                          |
| 2.4.8  | Incore Power Distribution, Cycle 2, 4/5/75, 0230  |
| 2.4.9  | Cycle 2 Transient 6/19/75                         |
| 2.4.10 | Incore Power Distribution, Cycle 2, 6/19/75, 0900 |

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 1 of 3

Rev. 0 Date: 4/28/76

| ITEM (Unit)                           | VALUE | SOURCE                          | COMMENTS                                                   |
|---------------------------------------|-------|---------------------------------|------------------------------------------------------------|
| 1. full power (MWt)                   | 2200. | FSAR Table 1.4-1                | none                                                       |
| 2. power density (KW/l)               | 83.3  | Idem                            | Calculated from data in FSAR Table 1.4-1                   |
| 3. linear power (watts/cm)            | 182.  | Idem                            | Idem                                                       |
| 4. system pressure (psia)             | *1900 | FP&L records<br>NCCO Log sheets | 2250 was design value changed to 1900 in middle of cycle 1 |
| 5. total core flow ( $10^6$ lbs/hr)   | 101.5 | FSAR Table 1.4-1                | none                                                       |
| 6. active core flow ( $10^6$ lbs/hr)  | 97.0  | Idem                            | none                                                       |
| 7. core flow area (ft <sup>2</sup> )  | 41.8  | Idem                            | none                                                       |
| 8. core $\Delta P$ @ 100% flow (psia) | 26.   | FSAR Table 3.2.2-1              | none                                                       |

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1

Verified By: AKG Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 2 of 3

Rev. 0 Date: 4/28/76

| ITEM (Unit)                                   | VALUE         | SOURCE                          | COMMENTS                                                                        |
|-----------------------------------------------|---------------|---------------------------------|---------------------------------------------------------------------------------|
| 9. spacer single phase loss coefficient       | Not available | not applicable                  | none                                                                            |
| 10. core inlet temperature (oF)               | 546.2         | FSAR Table 1.4-1                | 546. design value<br>*540. operating value                                      |
| 11. core average temperature (oF)             | *575.4        | FP&L records<br>NCCO Log sheets | 575.4 design value<br>*567. operating value                                     |
| 12. average fuel temperature (oF)             | 1200.         | NAI                             | Nominal Temperatures to be used in EPRI-CELL in lieu of EPRI-THERM calculation. |
| 13. average clad temperature (oF)             | 620.          | NAI                             | none                                                                            |
| 14. fraction of power produced in fuel        | .974          | FSAR Table 1.4-1                | none                                                                            |
| 15. engineering factor, hot channel enthalpy  | 1.01          | FSAR Table 3.2.2-2              | none                                                                            |
| 16. engineering factor, hot channel heat flux | 1.03          | FSAR Table 3.2.2-2              | none                                                                            |

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1

Verified By: AKG Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 3 of 3Rev. 0 Date: 4/28/76

| ITEM (Unit)                                  | VALUE                                                                                                          | SOURCE                    | COMMENTS                    |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|
| 17. cycle exposure (MWD/MTU)                 | *10,000                                                                                                        | FP&L records              | none                        |
| 18. initial core loading (MTU)               | *23.9                                                                                                          | FP&L records<br>AEC-741's | Region 4 - reload fuel only |
| 19. fuel enrichment (w/o U-235)              |                                                                                                                |                           |                             |
| region 1                                     | 1.85                                                                                                           | FSAR Table 3.2.3-1        | none                        |
| region 2                                     | 2.55                                                                                                           | Idem                      | none                        |
| region 3                                     | 3.10                                                                                                           | Idem                      | none                        |
| region 4                                     | 2.55                                                                                                           | FP&L records              | none                        |
|                                              | Note: The above enrichments are design values.<br>As-built enrichments are used in Diagram 2.2-1 and Table 2.3 |                           |                             |
| * DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1 |                                                                                                                |                           |                             |
| Verified By: <u>AKG</u> Date: <u>5/20/76</u> |                                                                                                                |                           |                             |

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 3Rev. 0 Date: 4/28/76

| ITEM (Unit)                                     | VALUE                             | SOURCE                                         | COMMENTS                 |
|-------------------------------------------------|-----------------------------------|------------------------------------------------|--------------------------|
| 1.0 <u>Core</u>                                 |                                   |                                                |                          |
| 1.1 Total number of fuel assemblies             | 157                               | FSAR Table 1.4-1                               | none                     |
| 1.2 Number of fuel assembly types **            | *8                                | FSAR Figures 3.2.1-1,7 3.2.3-3<br>FP&L records | none                     |
| 1.3 Location of individual assemblies           | *see diagram                      | FP&L records                                   | Diagram # 2.2-1 attached |
| 1.4 Number of fuel assemblies of each type      | * see diagram<br># 2.2-1 attached | Idem                                           | none                     |
| 1.5 Total number of control elements (clusters) | 53                                | FSAR Table 1.4-1                               | none                     |
| 1.6 Number of control element types             | 2                                 | FSAR Table 3.2.1-1                             | none                     |
| 1.7 Number of control elements of each type     | 45 full length<br>8 part length   | Idem                                           | none                     |

\*\* The term "fuel assembly type" is defined by the combination of fuel enrichment, burnable poison and control rod type as used in the EPRI-NODE code. Fuel type number assignments are redefined for each cycle.

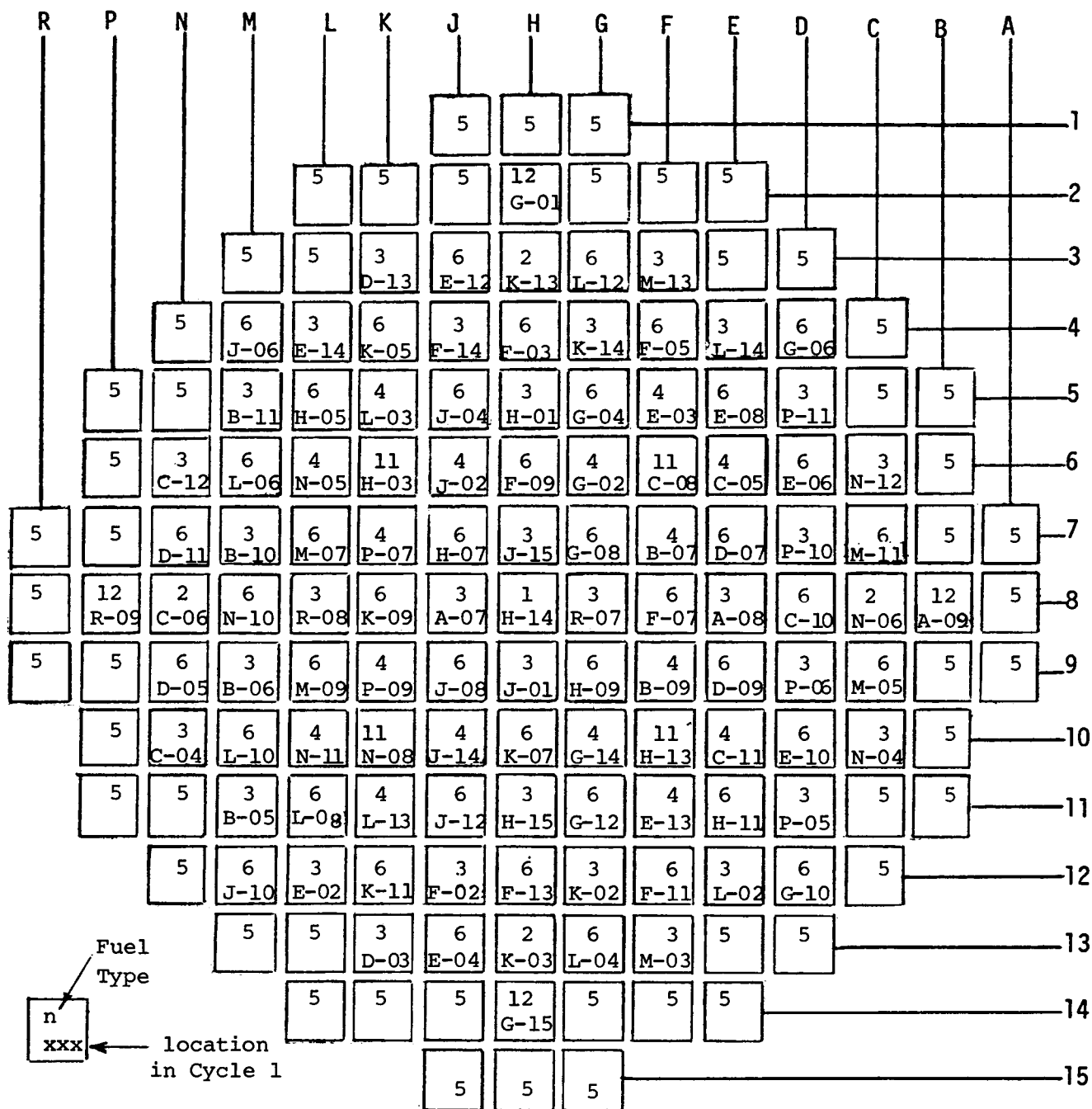
\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1.

Verified By: BZ Date: 5/24/76

Diagram 2.2-1

## Fuel Assembly Type Locations

Cycle 2



- 1 Fuel Type 1 assembly = Region 1 1.86 w/o
- 4 Fuel Type 2 assemblies = Region 2 2.56 w/o with BP in cycle 2
- 32 Fuel Type 3 assemblies = Region 3 3.10 w/o with no BP cycle 1 or 2
- 16 Fuel Type 4 assemblies = Region 3 3.10 w/o BP cycle 1, no BP cycle 2
- 52 Fuel Type 5 assemblies = Region 4 2.56 w/o
- 44 Fuel Type 6 assemblies = Region 2 2.56 w/o BP cycle 1, no BP cycle 2
- 4 Fuel Type 11 assemblies = Region 2 2.56 w/o BP cycle 1, PLR cycle 2
- 4 Fuel Type 12 assemblies = Region 3 3.10 w/o No BP cycle 1, PLR cycle 2

BP = assembly with burnable poison rods  
 PLR = assembly with part length control rods

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 3Rev. 0 Date: 4/28/76

| ITEM (Unit)                                             | VALUE                                            | SOURCE                                                                                          | COMMENTS                 |
|---------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------|
| 1.8 Location of control elements                        | See diagram                                      | FSAR Figure 3.2.1-1                                                                             | Diagram # 2.2-2 attached |
| 1.9 Total number of incore flux monitors                | 50                                               | FP&L Summary Report of Turkey Point                                                             | none                     |
|                                                         |                                                  | Units Nuclear Power Plant Start-up Physics Measurements                                         |                          |
| 1.10 Location of incore flux monitor                    | See diagram                                      | Idem                                                                                            | Diagram # 2.2-3 attached |
| 1.11 Core structure material-composition and type       | SS-304; core baffle, core barrel, thermal shield | FSAR P 3.2.3-4                                                                                  | none                     |
| 1.12 Core Structure Thickness (in)                      | Barrel = 2.0<br>Thermal shield =                 | FSAR Table 3.2.3-1                                                                              | none                     |
|                                                         | 2.6875                                           |                                                                                                 |                          |
| 1.13 Total number of incore thermo-couples              | 51                                               | FP&L Summary Report of the Turkey Point Unit 3 Nuclear Power Plant Startup Physics Measurements | Diagram # 2.2-4 attached |
| <div>Verified By: <u>929</u> Date: <u>5/24/76</u></div> |                                                  |                                                                                                 |                          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 3 of 3

CYCLE: 2

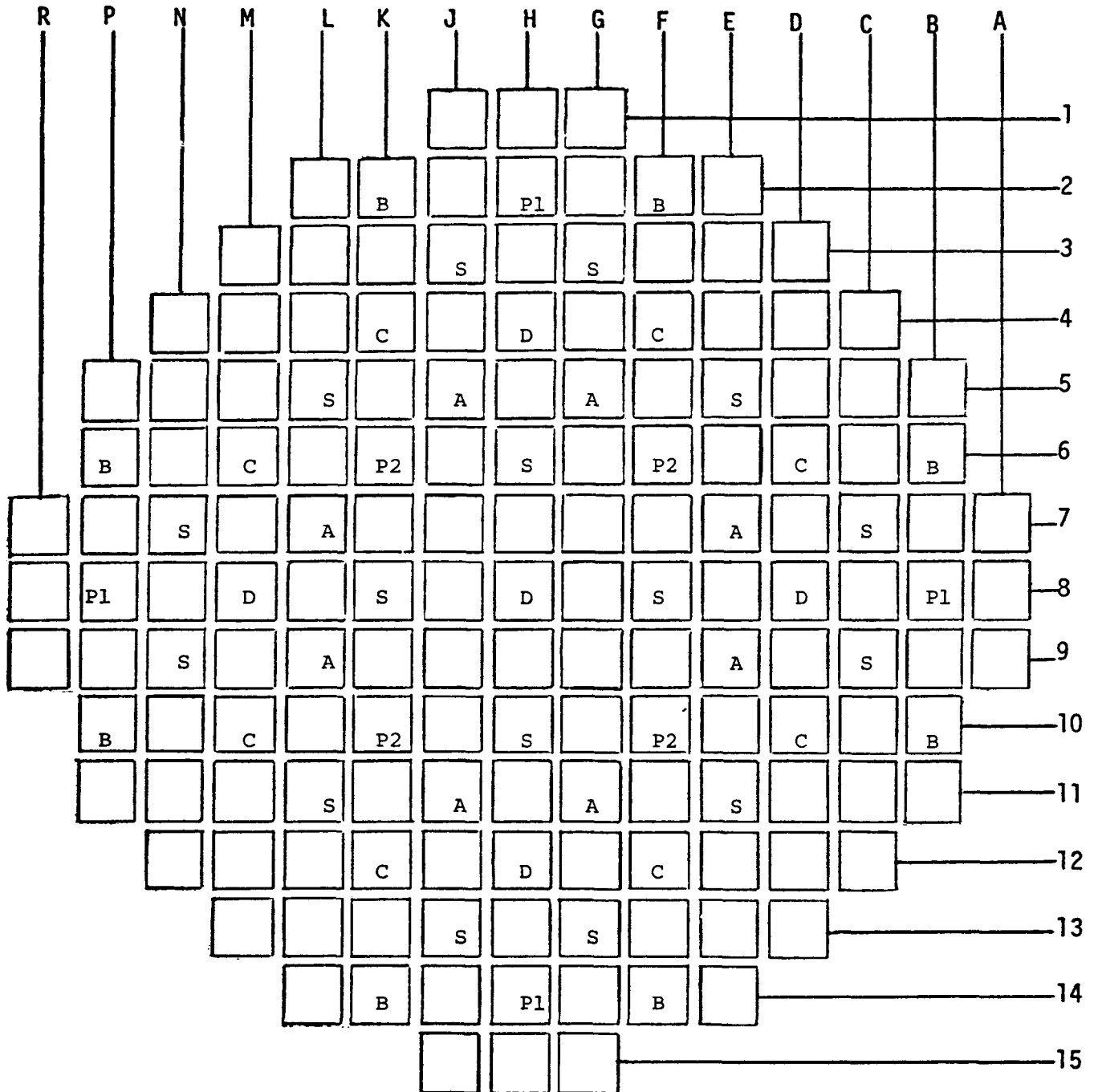
PWR CORE AND COMPONENT DESCRIPTION

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE                          | SOURCE                    | COMMENTS                                  |
|---------------------------------------------------|--------------------------------|---------------------------|-------------------------------------------|
| 1.14 Core layout                                  | See diagram                    | FSAR Figures<br>3.2.3-1,2 | diagram # 2.2-5 and 2.2-6<br>attached     |
| 1.15 Location of primary and<br>secondary sources | core locations<br>H-3 and H-13 | FP&L records              | diagram 2.2-7 attached<br>changed 2/22/77 |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
|                                                   |                                |                           |                                           |
| Verified By: <u>ATG</u> Date: <u>5/24/76</u>      |                                |                           |                                           |

Diagram 2.2-2

PATTERN OF CONTROL ROD BANKS



Control Rod Cluster Banks

No. of Clusters In Bank

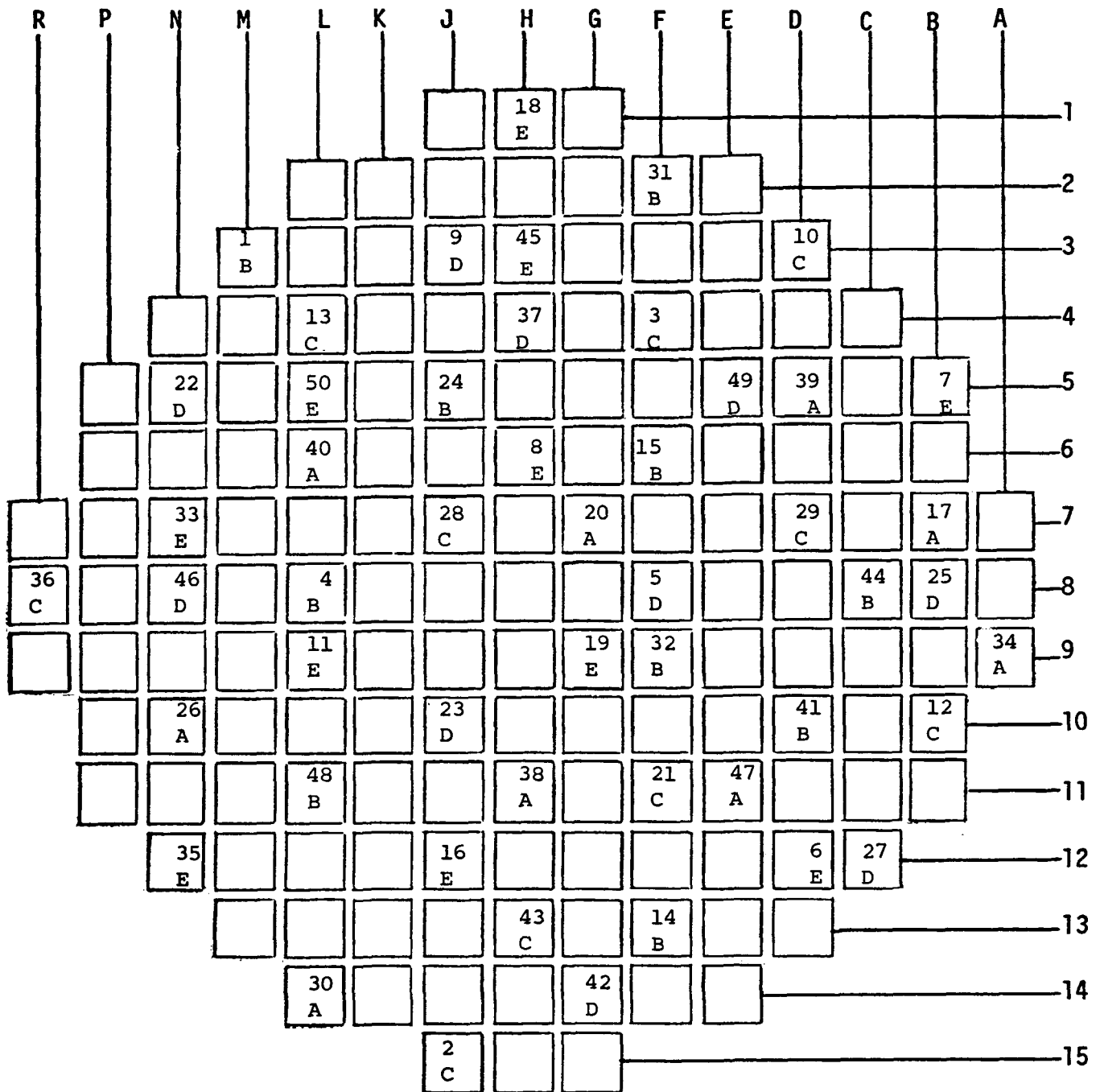
Control Bank A  
Control Bank B  
Control Bank C  
Control Bank D  
Shutdown Bank A&B(S)  
Part-Length (P1)  
Part-Length (P2)

8  
8  
8  
5  
16  
4  
4  

---

53

Diagram 2.2-3  
 INCORE DETECTOR LOCATIONS  
 Turkey Point Unit 3

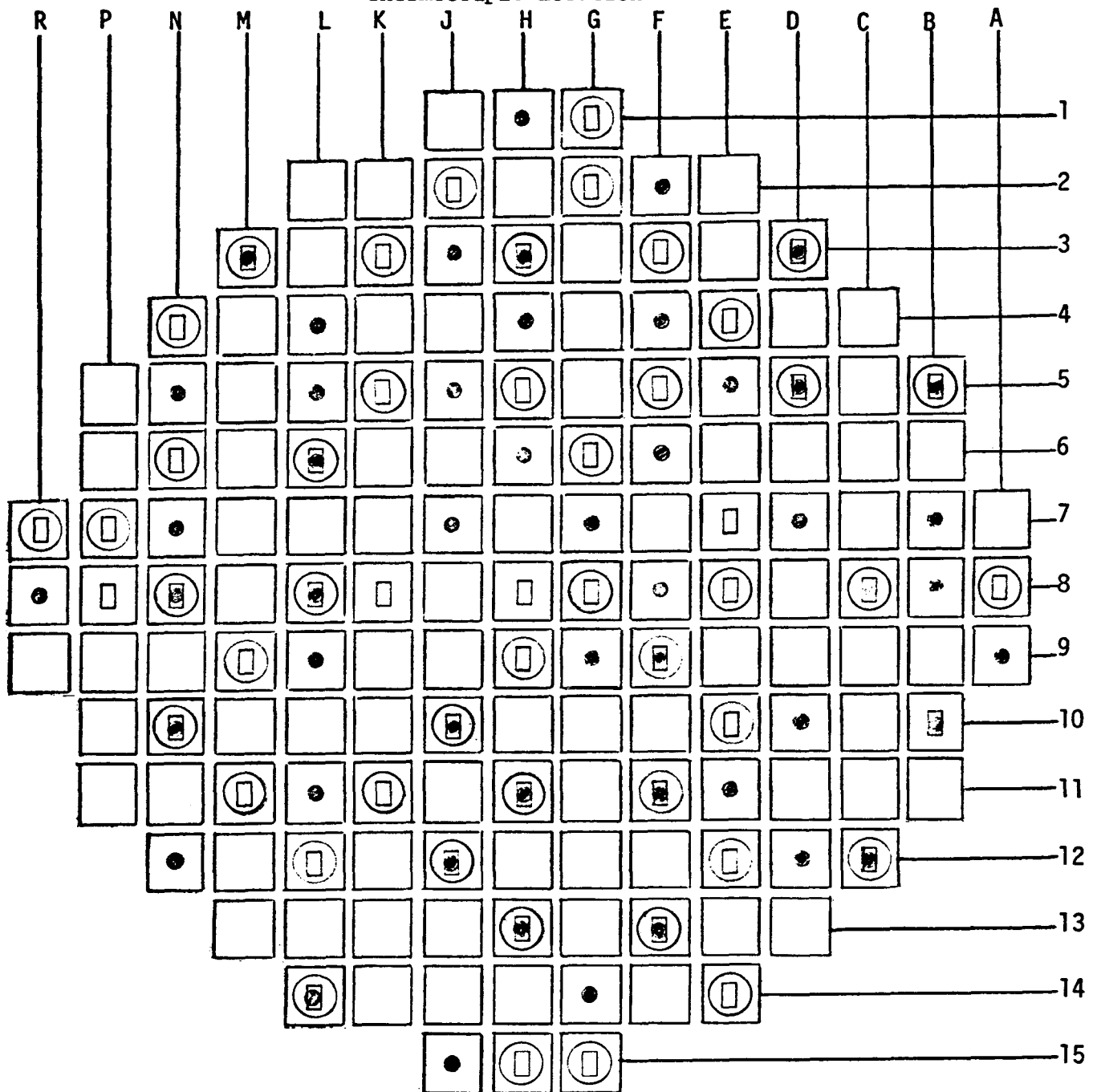


Thimble  
 Detector

LEGEND  
 ---  
 ---

Diagram 2.2-4

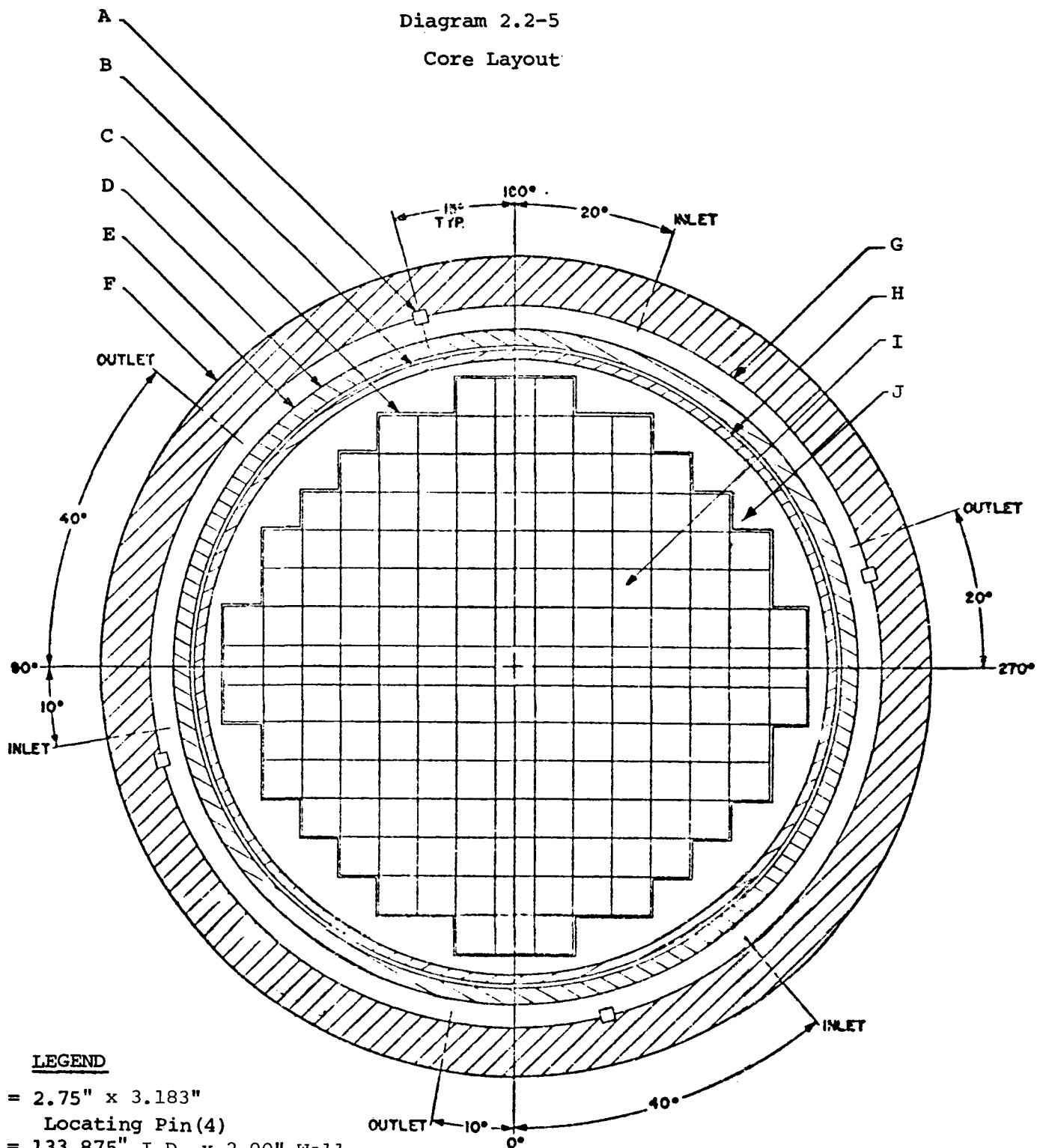
Thermocouple Locations



-  Thermocouple (51)
-  Flow Mixing Device (46)
-  Incore Movable Detectors (50)

Diagram 2.2-5

Core Layout

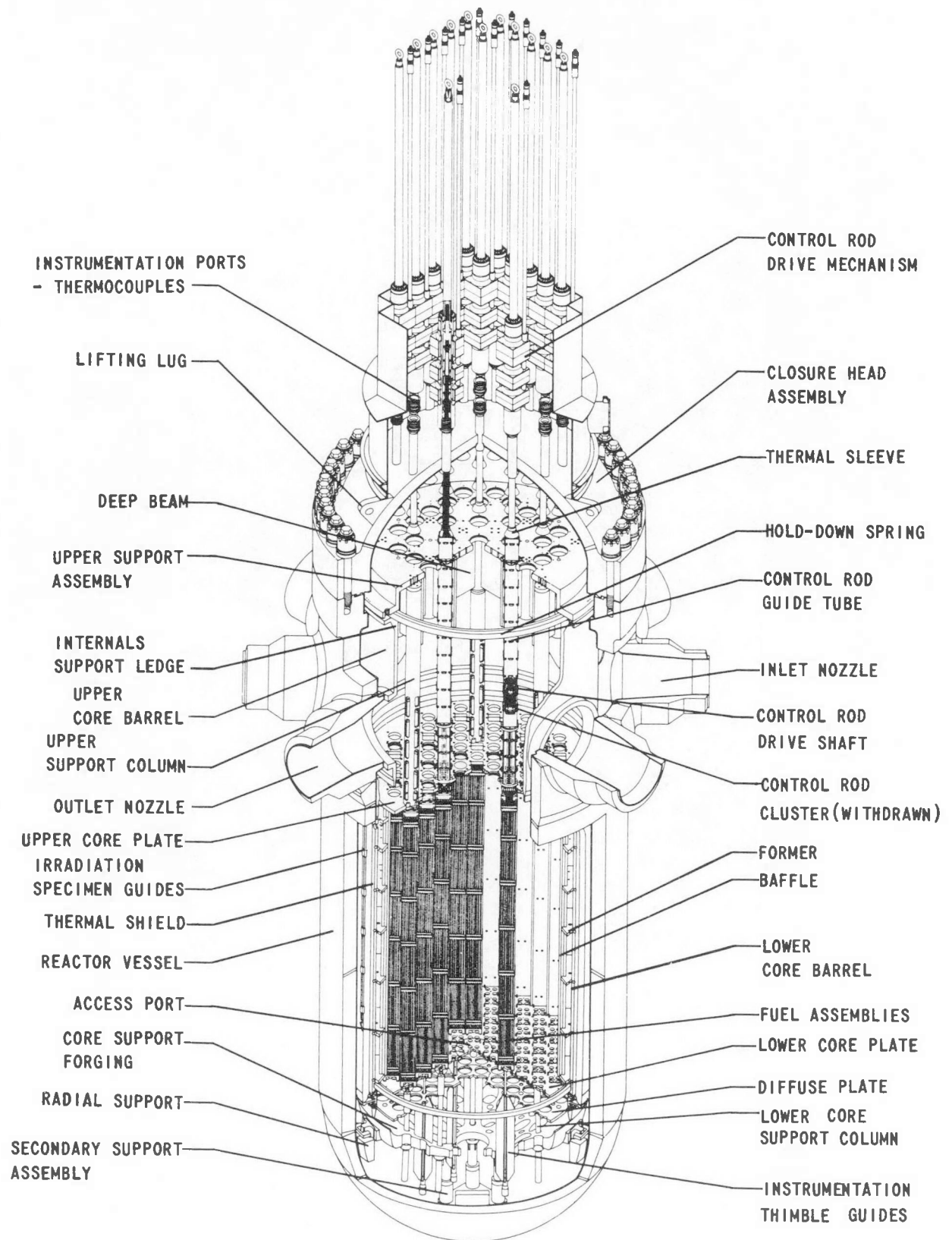


LEGEND

- A = 2.75" x 3.183"  
Locating Pin(4)
- B = 133.875" I.D. x 2.00" Wall
- C = CORE BAFFLE
- D = 142.625" I.D. x 2.687" Wall
- E = THERMAL SHIELD
- F = REACTOR VESSEL
- G = 155.50" I.D. VESSEL
- H = CORE BARREL
- I = FUEL ASSEMBLY
- J = Intra baffle-barrel area  
occupied by water at system  
pressure and temperature

REACTOR CORE CROSS SECTION

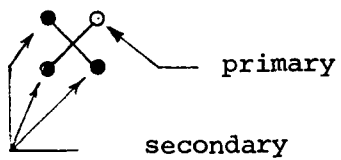
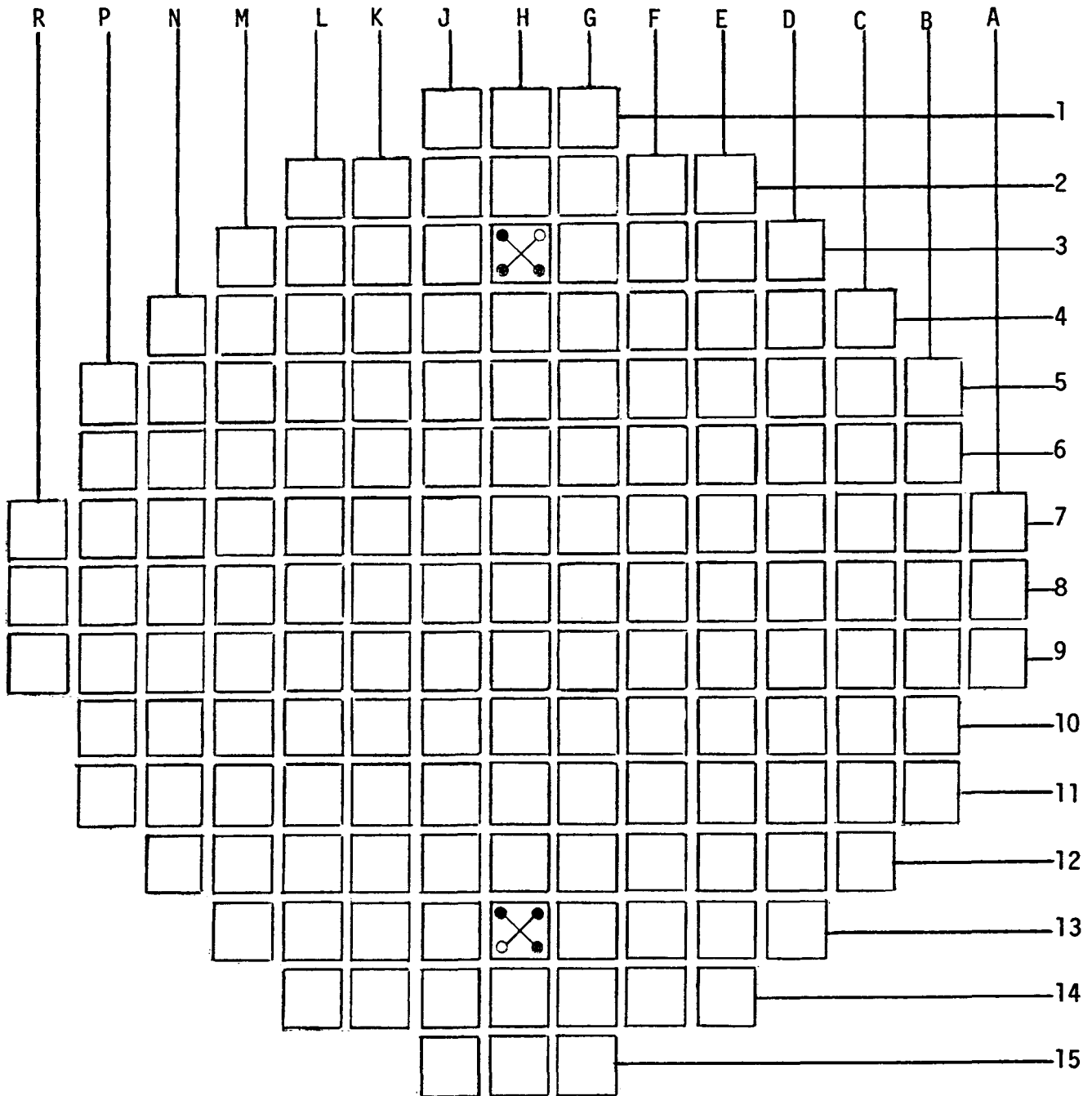
Diagram 2.2-6



Core Layout, Reactor Vessel Internals

Diagram 2.2-7

Location of Primary and Secondary Sources



Primary/Secondary  
Source Assembly

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 2

CYCLE: 2

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                         | VALUE                                   | SOURCE             | COMMENTS                                                   |
|-----------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------------------------|
| 2.0 <u>Control Rod - Pin Cluster</u><br><u>Type</u> |                                         |                    |                                                            |
| 2.1 Guide tube Material                             | Zircaloy-4                              | FSAR P 3.2.3-14    | none                                                       |
| 2.2 Guide Tube density (g/cc)                       | 6.56                                    | NAI 70-52          | Light Water Reactor Fuel<br>Assembly Materials Data Manual |
| 2.3 Guide Tube O.D. (in)                            | above dash pot .546<br>at dash pot .488 | FSAR Table 3.2.3-8 | none                                                       |
| 2.4 Guide Tube I.D. (in)                            | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 | none                                                       |
| 2.5 Absorber clad material                          | SS-304                                  | FSAR Table 1.4-1   | none                                                       |
| 2.6 Absorber clad density (g/cc)                    | 7.91                                    | NAI 70-52          | none                                                       |
| 2.7 Absorber clad thickness<br>(in)                 | .019                                    | FSAR Table 3.2.3-1 | none                                                       |
| 2.8 Absorber length (in)                            | 142. full length<br>36. part length     | FSAR Table 3.2.3-1 | none                                                       |
| 2.9 Absorber O.D. (in)                              | .432                                    | FSAR P 3.2.3-20    | none                                                       |

Verified By: APG Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2Rev. 0 Date: 4/27/76

| ITEM (Unit)                                                           | VALUE                   | SOURCE                   | COMMENTS                                                      |
|-----------------------------------------------------------------------|-------------------------|--------------------------|---------------------------------------------------------------|
| 2.10 Absorber composition                                             | 5% Cd<br>15% In         | FSAR Table 3.2.3-1       | none                                                          |
|                                                                       | 80% Ag                  |                          |                                                               |
| 2.11 Follower Material (portion<br>above part length rod<br>absorber) | $\text{Al}_2\text{O}_3$ | FSAR P 3.2.3-18          | none                                                          |
| 2.12 Follower density (g/cc)                                          | 3.9                     | Chem. Engrs.<br>Handbook | none                                                          |
| 2.13 Follower O.D. (in)                                               | Not required            | not applicable           | Part length rods are prohibited                               |
| 2.14 Follower I.D. (in)                                               | Not required            | not applicable           | from being inserted into core<br>except for low power physics |
| 2.15 Follower length (in)                                             | Not required            | not applicable           | test per FSAR Tech Spec page<br>3.2.1.E.                      |
|                                                                       |                         |                          |                                                               |
|                                                                       |                         |                          |                                                               |
|                                                                       |                         |                          |                                                               |
| Verified By: <u>ATG</u> Date: <u>5/24/76</u>                          |                         |                          |                                                               |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 2

CYCLE: 2

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

| ITEM (Unit)                           | VALUE                                   | SOURCE                       | COMMENTS                                  |
|---------------------------------------|-----------------------------------------|------------------------------|-------------------------------------------|
| 3.0 <u>Instrument Cell</u>            |                                         |                              |                                           |
| 3.1 Instrument tube material          | Zircaloy-4                              | FSAR P 3.2.3-10,<br>3.2.3-14 | none                                      |
| 3.2 Instrument tube density<br>(g/cc) | 6.56                                    | NAI 70-52                    | none                                      |
| 3.3 Instrument tube O.D. (in)         | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8            | Calculated from data in<br>Figure 3.2.3-8 |
| 3.4 Instrument tube I.D. (in)         | above dash pot .512<br>at dash pot .455 | FSAR Fig. 3.2.3-8            | none                                      |
| 3.5 Spacer sleeve material            | Not available                           | not applicable               | none                                      |
| 3.6 Spacer sleeve density (g/cc)      | ----                                    | not applicable               | none                                      |
| 3.7 Spacer sleeve length (in)         | Not available                           | not applicable               | none                                      |
| 3.8 Spacer sleeve O.D. (in)           | Not available                           |                              |                                           |
| 3.9 Spacer sleeve I.D. (in)           | Not available                           |                              |                                           |

Verified By: NZ9 Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 2

Rev. 1 Date: 4/5/77

| ITEM (Unit)                           | VALUE              | SOURCE         | COMMENTS |
|---------------------------------------|--------------------|----------------|----------|
| 3.10 Instrument pin clad O.D.<br>(in) | Not applicable     | not applicable | none     |
| 3.11 Instrument pin clad I.D.<br>(in) | Not applicable     | not applicable | none     |
| 3.12 Detector types                   | fission chamber    | FSAR p 7.6-2   | none     |
| 3.13 Thermocouple type                | Chromel-<br>Alumel | Idem           | none     |
| 3.14 Background detector type         | None               | not applicable | none     |
|                                       |                    |                |          |
|                                       |                    |                |          |
|                                       |                    |                |          |
|                                       |                    |                |          |

Verified By: BY Date: 5/25/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 4

CYCLE: 2

## PWR CORE AND COMPONENT DESCRIPTION

FUEL ASSEMBLY TYPE: 1,3,4,5,6,11,12Rev. 1 Date: 4/5/77

| ITEM (Unit)                                                  | VALUE         | SOURCE                                    | COMMENTS                 |
|--------------------------------------------------------------|---------------|-------------------------------------------|--------------------------|
| 4.0 <u>Fuel Assembly (for each fuel assembly type)</u>       |               |                                           |                          |
| 4.1 Assembly layout                                          | See diagram   | FSAR Fig. 3.2.3-8                         | Diagram # 2.2-8 attached |
| 4.2 Assembly pitch (in)                                      | 8.466         | Idem                                      | none                     |
| 4.3 Assembly geometry                                        | 15 X 15 array | FSAR Table 3.2.3-1                        | none                     |
| 4.4 Fuel pin pitch (in)                                      | .563          | Idem                                      | none                     |
| 4.5 Fuel pins per assembly                                   | 204           | Idem                                      | none                     |
| 4.6 Fuel pin length (in)                                     | 152.060       | Idem                                      | none                     |
| 4.7 Instrument pins per assembly<br>(Instrumentation Sheath) | 1             | FSAR Fig. 3.2.3-8                         | none                     |
| 4.8 Water holes (or inert pins)<br>per assembly              | 0             | Idem                                      | none                     |
| 4.9 Burnable poison positions<br>per assembly                | 0             | FSAR Figures<br>3.2.1-7,8<br>Fig. 3.2.3-3 |                          |

Verified By: ATG Date: 5/26/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 2 of 4

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/28/76

FUEL ASSEMBLY TYPE: 1, 3, 4, 5, 6, 11, 12

| ITEM (Unit)                                  | VALUE         | SOURCE             | COMMENTS                 |
|----------------------------------------------|---------------|--------------------|--------------------------|
| 4.10 Control positions per assembly          | 20            | FSAR Table 3.2.3-1 | none                     |
| 4.11 Spacer grids per assembly and location  | 7             | FSAR Fig. 3.2.3-9  | Diagram # 2.2-9 attached |
| 4.12 Spacer grid material                    | Inconel 718   | FSAR p 3.2.3-15    | none                     |
| 4.13 Mass per grid (g)                       | Not available | not applicable     | none                     |
| 4.14 Spacer grid thickness (in)              | Idem          | not applicable     | none                     |
| 4.15 Spacer Grid height (in)                 | Idem          | not applicable     | none                     |
|                                              |               |                    |                          |
|                                              |               |                    |                          |
|                                              |               |                    |                          |
| Verified By: <u>ATG</u> Date: <u>5/26/76</u> |               |                    |                          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 3 of 4

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL ASSEMBLY TYPE: 2

| ITEM (Unit)                                               | VALUE         | SOURCE                            | COMMENTS                  |
|-----------------------------------------------------------|---------------|-----------------------------------|---------------------------|
| 4.0 <u>Fuel Assembly (for each fuel assembly type)</u>    |               |                                   |                           |
| 4.1 Assembly layout                                       | See diagram   | FSAR Fig. 3.2.3-8                 | Diagram # 2.2-8 attached  |
| 4.2 Assembly pitch (in)                                   | 8.466         | Idem                              | none                      |
| 4.3 Assembly geometry                                     | 15 X 15 array | FSAR Table 3.2.3-1                | none                      |
| 4.4 Fuel pin pitch (in)                                   | .563          | Idem                              | none                      |
| 4.5 Fuel pins per assembly                                | 204           | Idem                              | none                      |
| 4.6 Fuel pin length (in)                                  | 152.060       | Idem                              | none                      |
| 4.7 Instrument pins per assembly (Instrumentation Sheath) | 1             | FSAR Fig. 3.2.3-8                 | none                      |
| 4.8 Water holes (or inert pins) per assembly              | 0             | Idem                              | none                      |
| 4.9 Burnable poison positions per assembly                | 12            | FSAR Figs 3.2.1-7, 8 Fig. 3.2.3-3 | Diagram # 2.2-8A attached |

Verified By: AKYDate: 5/20/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 4 of 4

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

FUEL ASSEMBLY TYPE: 2

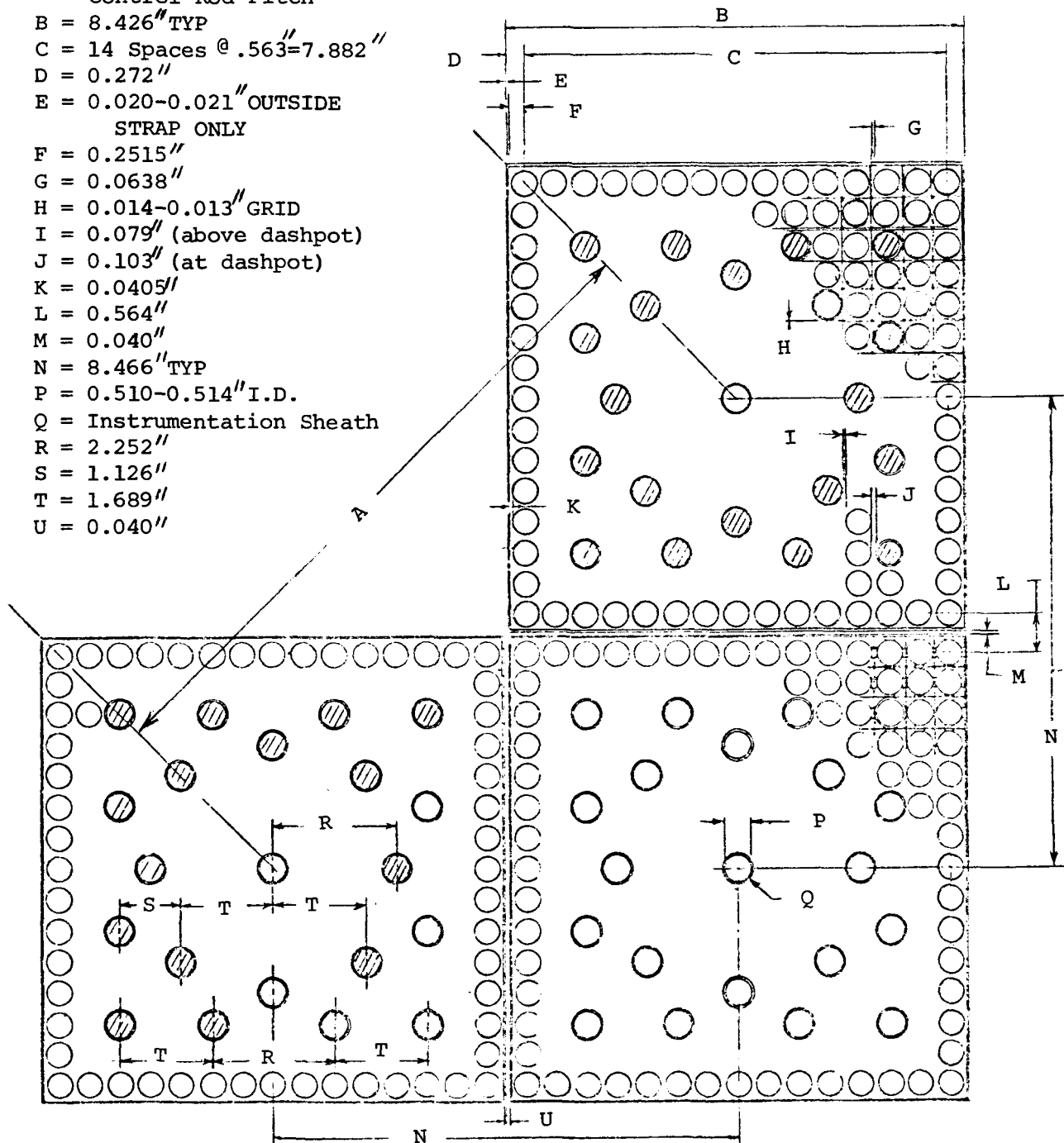
| ITEM (Unit)                                   | VALUE         | SOURCE             | COMMENTS                 |
|-----------------------------------------------|---------------|--------------------|--------------------------|
| 4.10 Control positions per assembly           | 20            | FSAR Table 3.2.3-1 | none                     |
| 4.11 Spacer grids per assembly and location   | 7             | FSAR Fig. 3.2.3-9  | Diagram # 2.2-9 attached |
| 4.12 Spacer grid material                     | Inconel 718   | FSAR p 3.2.3-15    | none                     |
| 4.13 Mass per grid (g)                        | Not available | not applicable     | none                     |
| 4.14 Spacer grid thickness (in)               | Not available | not applicable     | none                     |
| 4.15 Spacer Grid height (in)                  | Not available | not applicable     | none                     |
|                                               |               |                    |                          |
|                                               |               |                    |                          |
|                                               |               |                    |                          |
| Verified By: <u>AZey</u> Date: <u>5/26/76</u> |               |                    |                          |

Diagram 2.2-8

Assembly Layout

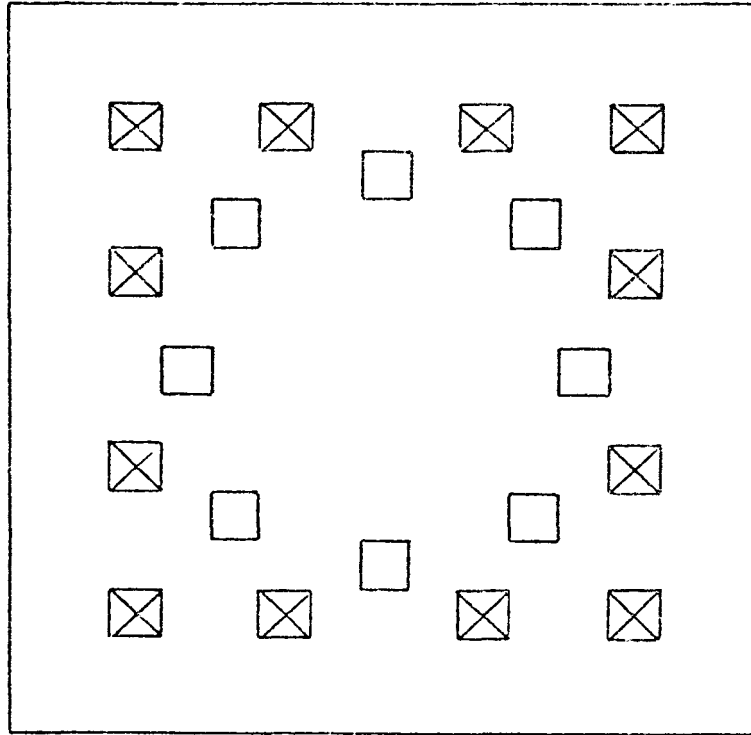
LEGEND

- A = 11.973" Fuel Ass'y and Control Rod Pitch
- B = 8.426" TYP
- C = 14 Spaces @ .563" = 7.882"
- D = 0.272"
- E = 0.020-0.021" OUTSIDE STRAP ONLY
- F = 0.2515"
- G = 0.0638"
- H = 0.014-0.013" GRID
- I = 0.079" (above dashpot)
- J = 0.103" (at dashpot)
- K = 0.0405"
- L = 0.564"
- M = 0.040"
- N = 8.466" TYP
- P = 0.510-0.514" I.D.
- Q = Instrumentation Sheath
- R = 2.252"
- S = 1.126"
- T = 1.689"
- U = 0.040"



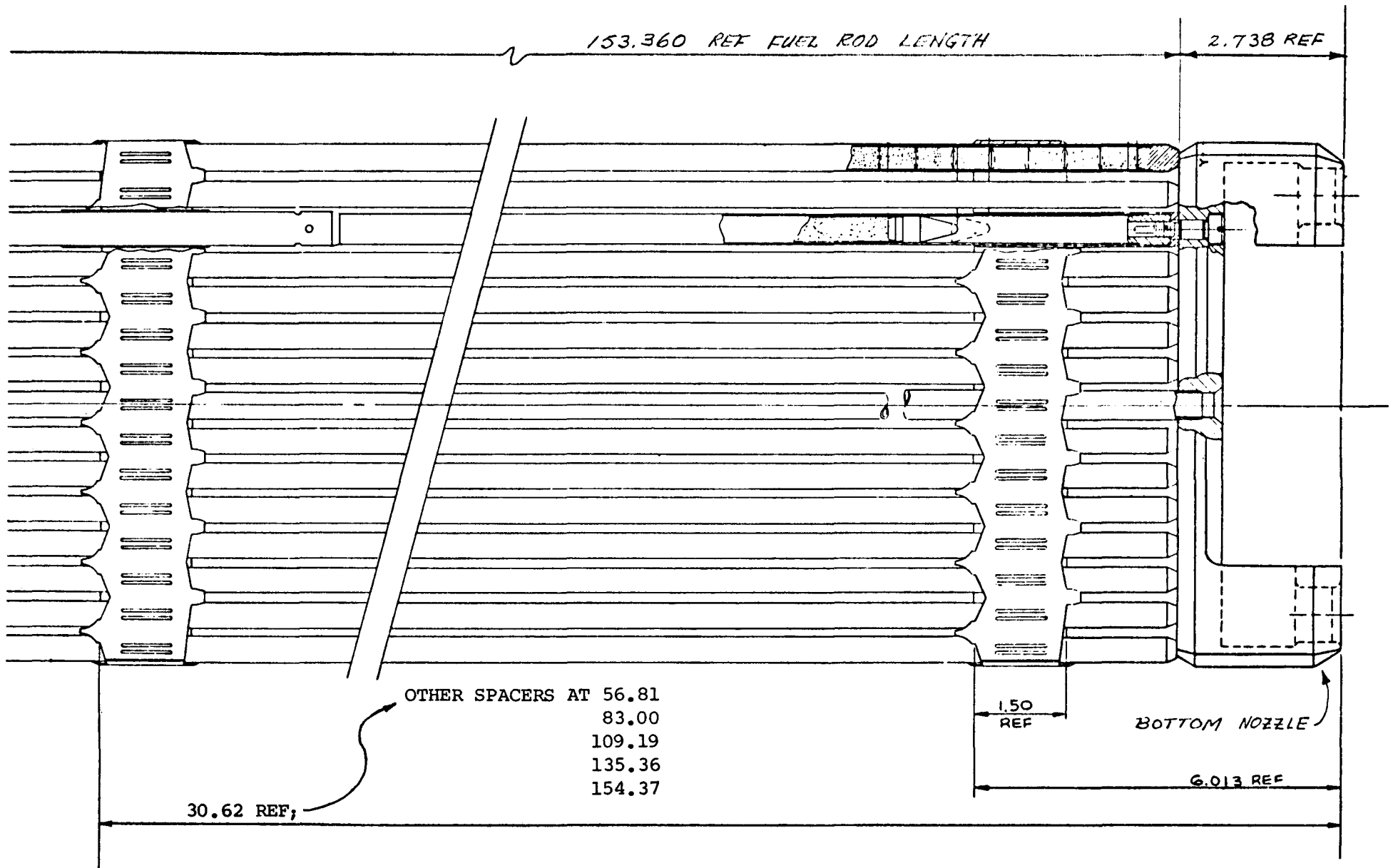
FUEL ASSEMBLY AND CONTROL CLUSTER CROSS SECTION

Diagram 2.2-8A



Assembly-wise Burnable Poison Rod Locations

Diagram 2.2-9  
Spacer Grid Locations



REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL PIN TYPE 1.85 w/o

| ITEM (Unit)                                               | VALUE          | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | $UO_2$<br>1.85 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.3           | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet O.D. (in)                                 | .600           | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659          | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available  | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144            | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4     | FSAR table 1.4-1   | none     |
|                                                           |                |                    |          |
| Verified By: <u>AZ</u> Date: <u>5/26/76</u>               |                |                    |          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 2 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL PIN TYPE 1.85 w/o

| ITEM (Unit)                                  | VALUE | SOURCE                              | COMMENTS                            |
|----------------------------------------------|-------|-------------------------------------|-------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                           | none                                |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                    | none                                |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                | calculated from data in Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | ~ 7   | FSAR Table 3.2.3-1 and Fig. 3.2.3-9 | approximate                         |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
| Verified By: <u>ATG</u> Date: <u>5/26/76</u> |       |                                     |                                     |

REACTOR: Turkey Point 3

CYCLE: 2

FUEL PIN TYPE 2.55 w/o (Region 2)

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 3 of 8

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 2.55 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.19                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | not available        | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144.                 | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified By: RPY Date: 5/24/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 4 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

FUEL PIN TYPE 2.55 w/o (Region 2)

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                  | VALUE | SOURCE                               | COMMENTS                            |
|----------------------------------------------|-------|--------------------------------------|-------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                            | none                                |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                     | none                                |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                 | Calculated from data in Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | ~7    | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | approximate                         |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
| Verified By: <u>AKG</u> Date: <u>5/26/76</u> |       |                                      |                                     |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 5 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76FUEL PIN TYPE 3.10 w/o

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 3.10 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.08                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3649                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | not available        | not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 143.474              | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified By: AZ4 Date: 5/29/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 6 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

FUEL PIN TYPE 3.10 w/o

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                  | VALUE | SOURCE                               | COMMENTS                            |
|----------------------------------------------|-------|--------------------------------------|-------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                            | none                                |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                     | none                                |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                 | calculated from data in Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | ~7    | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | approximate                         |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |
|                                              |       |                                      |                                     |

Verified By: ATZ Date: 5/20/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 7 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 1 Date: 4/5/77

FUEL PIN TYPE 2.55 w/o (Region 4)

| ITEM (Unit)                                               | VALUE                   | SOURCE         | COMMENTS        |
|-----------------------------------------------------------|-------------------------|----------------|-----------------|
| 5.0 Fuel pin (required for each fuel pin type)            |                         |                |                 |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub><br>2.55 | FP&L Records   | none            |
| 5.2 Fuel pellet density (g/cc)                            | 10.41                   | Idem           | 95% TD          |
| 5.3 Fuel pellet length (in)                               | .600                    | Idem           | none            |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                   | Idem           | changed 2/22/77 |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | not available           | not applicable | none            |
| 5.6 Fuel pellet stack height (in)                         | 144                     | FP&L Records   | none            |
| 5.7 Fuel clad material                                    | Zircaloy-4              | Idem           | none            |

Verified By: AZG Date: 5/26/76

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 8 of 8

CYCLE: 2

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/28/76

FUEL PIN TYPE 2.55 w/o (Region 4)

| ITEM (Unit)                                  | VALUE | SOURCE       | COMMENTS |
|----------------------------------------------|-------|--------------|----------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52    | none     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FP&L Records | none     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem         | none     |
| 5.11 Unheated length at top of fuel pin (in) | ~7    | Idem         | none     |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
| Verified By: <u>BY</u> Date: <u>5/24/76</u>  |       |              |          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 1

CYCLE: 2

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/27/76

| ITEM (Unit)                                                            | VALUE | SOURCE | COMMENTS                                                                                                                                   |
|------------------------------------------------------------------------|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 6.0 Water (or inert) Rod Cell<br>For each water (or inert<br>cell type |       |        |                                                                                                                                            |
| 6.1 Tube material and density<br>(g/cc)                                | None  |        | No additional water cell data<br>required. Guide tubes contain<br>either control rod, instrument<br>pin, burnable poison rods or<br>water. |
|                                                                        |       |        |                                                                                                                                            |
| 6.2 Tube O.D. (in)                                                     |       |        |                                                                                                                                            |
| 6.3 Tube I.D. (in)                                                     |       |        |                                                                                                                                            |
| 6.4 Inert material                                                     |       |        |                                                                                                                                            |
| 6.5 Inert material density<br>(g/cc)                                   |       |        |                                                                                                                                            |
| 6.6 Inert material O.D. (in)                                           |       |        |                                                                                                                                            |
| 6.7 Inert material I.D. (in)                                           |       |        |                                                                                                                                            |
| Verified By: <u>ATG</u> Date: <u>5/24/76</u>                           |       |        |                                                                                                                                            |

REACTOR: Turkey Point 3

CYCLE: 2

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 1 of 2Rev. 0 Date: 4/28/76

| ITEM (Unit)                                                          | VALUE                                   | SOURCE             | COMMENTS                               |
|----------------------------------------------------------------------|-----------------------------------------|--------------------|----------------------------------------|
| 7.0 <u>Burnable Poison Cell</u> (for each burnable poison cell type) |                                         |                    |                                        |
| 7.1 Guide tube material                                              | Zircaloy-4                              | FSAR p 3.2.3-14    | none                                   |
| 7.2 Guide tube density (g/cc)                                        | 6.56                                    | NAI 70-52          | none                                   |
| 7.3 Guide tube O.D. (in)                                             | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8  | Calculated from data in Figure 3.2.3-8 |
| 7.4 Guide tube I.D. (in)                                             | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 | none                                   |
| 7.5 Burnable poison pin clad material                                | Stainless steel                         | Idem               | none                                   |
| 7.6 Burnable poison clad density (g/cc)                              | 7.91                                    | NAI 70-52          | none                                   |
| 7.7 Burnable poison clad O.D. (in)                                   | .4395                                   | FSAR Table 3.2.3-1 | none                                   |
| 7.8 Burnable poison clad I.D. (in)                                   | not available                           | not applicable     | none                                   |
| 7.9 Poison pin material                                              | Borosilicate glass                      | FSAR Table 3.2.3-1 | none                                   |
| Verified By: <u>AZ9</u> Date: <u>5/24/76</u>                         |                                         |                    |                                        |

REACTOR: Turkey Point 3  
CYCLE: 2

TABLE 2.2  
PWR CORE AND COMPONENT DESCRIPTION

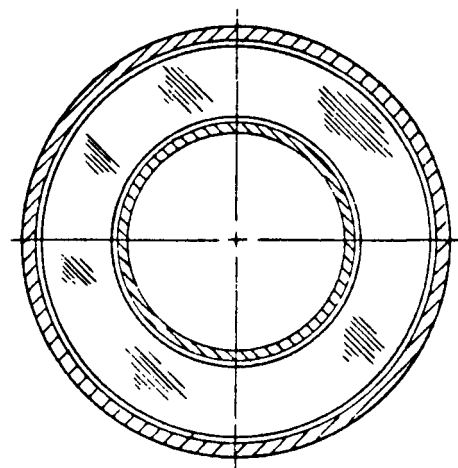
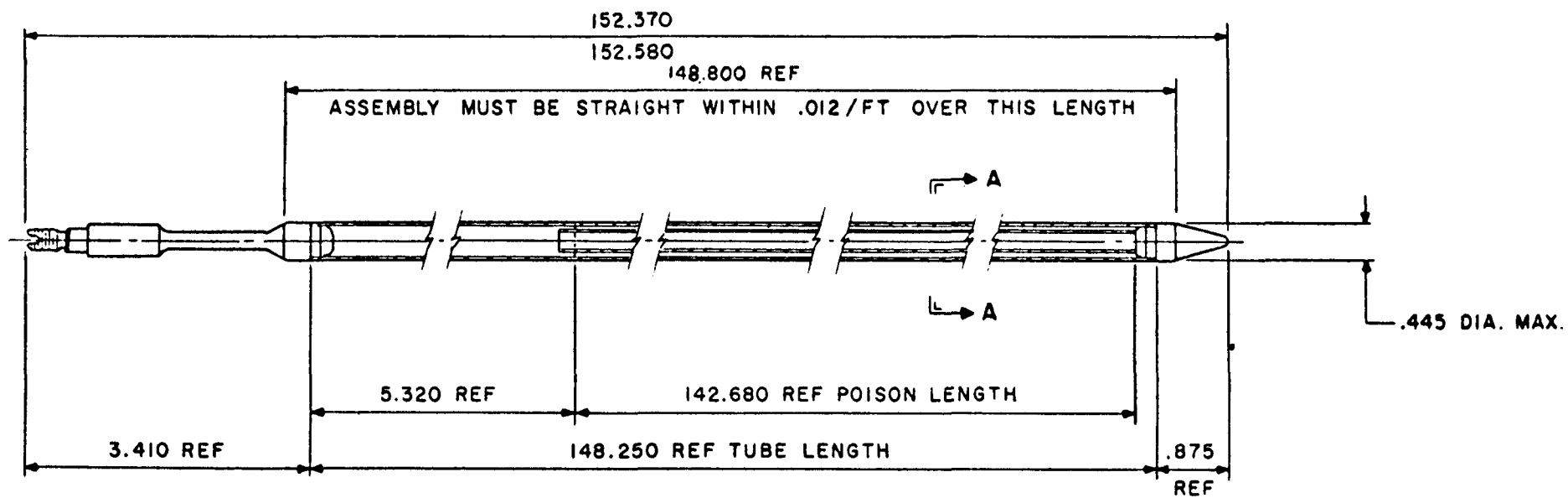
Sheet 2 of 2

Rev. 0 Date: 4/28/76

| ITEM (Unit)                              | VALUE                                   | SOURCE             | COMMENTS                  |
|------------------------------------------|-----------------------------------------|--------------------|---------------------------|
| 7.10 Poison pin density (g/cc)           | linear $B_{nat} =$<br>.0429 g/cm        | FSAR Table 3.2.3-1 | none                      |
| 7.11 Poison pin O.D. (in)                | not available                           | not applicable     | none                      |
| 7.12 Poison pin I.D. (in)                | not available                           | not applicable     | none                      |
| 7.13 Poison pin composition              | .0429 gm B-<br>natural per cm<br>height | FSAR Table 3.2.3-1 | none                      |
| 7.14 Poison length and axial<br>location | 142.680<br>See diagram                  | FSAR Fig. 3.2.3-11 | Diagram # 2.2-10 attached |
| 7.15 Inner Tube material                 | S.S.                                    | FSAR Table 3.2.3-1 | none                      |
| 7.16 Inner Tube O.D.                     | .2365                                   | Idem               | none                      |
| 7.17 Inner Tube I.D.                     | not available                           |                    |                           |

Verified By: BJG

Date: 5/24/76



**SECTION A-A**  
**ENLARGED DETAIL**

Diagram 2.2-10  
Burnable Poison Rod

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 1 of 2

CYCLE: 2

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 1 Date: 4/5/77

ASSEMBLY TYPE: 5 (Region 4)

| ITEM (Unit)                                  | VALUE | SOURCE                                                | COMMENTS                               |
|----------------------------------------------|-------|-------------------------------------------------------|----------------------------------------|
| <u>Material</u> (kg)                         |       |                                                       |                                        |
| 1. U- total                                  | 456.3 | FP&L Records AEC -<br>741's, Fuel Shipping<br>Records | none                                   |
| 2. U-238                                     | 444.6 | Idem                                                  | assume equal to U-total<br>minus U-235 |
| 3. U-235                                     | 11.68 | Idem                                                  | none                                   |
| 4. U-234                                     |       |                                                       | not known                              |
| 5. U-236                                     |       |                                                       | not known                              |
| 6. $\text{UO}_2$                             | 517.8 | Idem                                                  | none                                   |
| 7. B - Natural                               | 0.    | Idem                                                  | none                                   |
| 8. B-10                                      | 0.    | Idem                                                  | none                                   |
| 9. w/o U-235                                 | 2.56  | Idem                                                  | none                                   |
| Verified By: <u>AZY</u> Date: <u>5/24/79</u> |       |                                                       |                                        |

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 2 of 2

CYCLE: 2

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 1 Date: 5/12/78

| ITEM (Unit) | VALUE | SOURCE | COMMENTS |
|-------------|-------|--------|----------|
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |

| <u>Current Cycle Fuel Type</u> | <u>Cycle 1 Fuel Type</u> | <u>As-Built Enrichment<br/>Weight Percent U235</u> |
|--------------------------------|--------------------------|----------------------------------------------------|
| 1                              | 11                       | 1.861                                              |
| 2                              | 2                        | 2.56                                               |
| 3                              | 3                        | 3.101                                              |
| 4                              | 4                        | 3.101                                              |
| 5                              | -                        | 2.56                                               |
| 6                              | 2                        | 2.56                                               |
| 11                             | 2                        | 2.56                                               |
| 12                             | 3                        | 3.101                                              |

Verified by: AGG Date: 5/14/78

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 1 of 1

CYCLE: 2

## PART A - PWR HISTORY

Rev. 0 Date: 4/28/76

Exposure 0 MWD/MTU to 8840 MWD/MTU

| ITEM (Unit)                                                                  | VALUE                         | SOURCE                 | COMMENTS                                                                                               |
|------------------------------------------------------------------------------|-------------------------------|------------------------|--------------------------------------------------------------------------------------------------------|
| <u>PWR History</u> (in ~ 500 MWD/MTU steps) average value over time interval |                               |                        |                                                                                                        |
| 1. Core power (MWt)                                                          | See Diagram<br>2.4-1 attached | FP&L Records<br>TPTRAC | calculated                                                                                             |
| 2. Total core flow ( $10^6$ lbs/hr)                                          | 101.5                         | Idem                   | Nominal 100%                                                                                           |
| 3. System pressure (psia)                                                    | 1900                          | Idem                   | Nominal                                                                                                |
| 4. Soluble poison concentration (ppm)                                        | See Diagram<br>2.4-1 attached | Idem                   | Soluble Poison Curve is for the core condition of hot-full power, all rods out, and equilibrium Xenon. |
| 5. Inlet temperature ( $^{\circ}$ F)                                         | 540                           | Idem                   | nominal inlet                                                                                          |
| 6. Control rod positions (by location)                                       | Bank D<br>5% inserted         | Idem                   | nominal value                                                                                          |

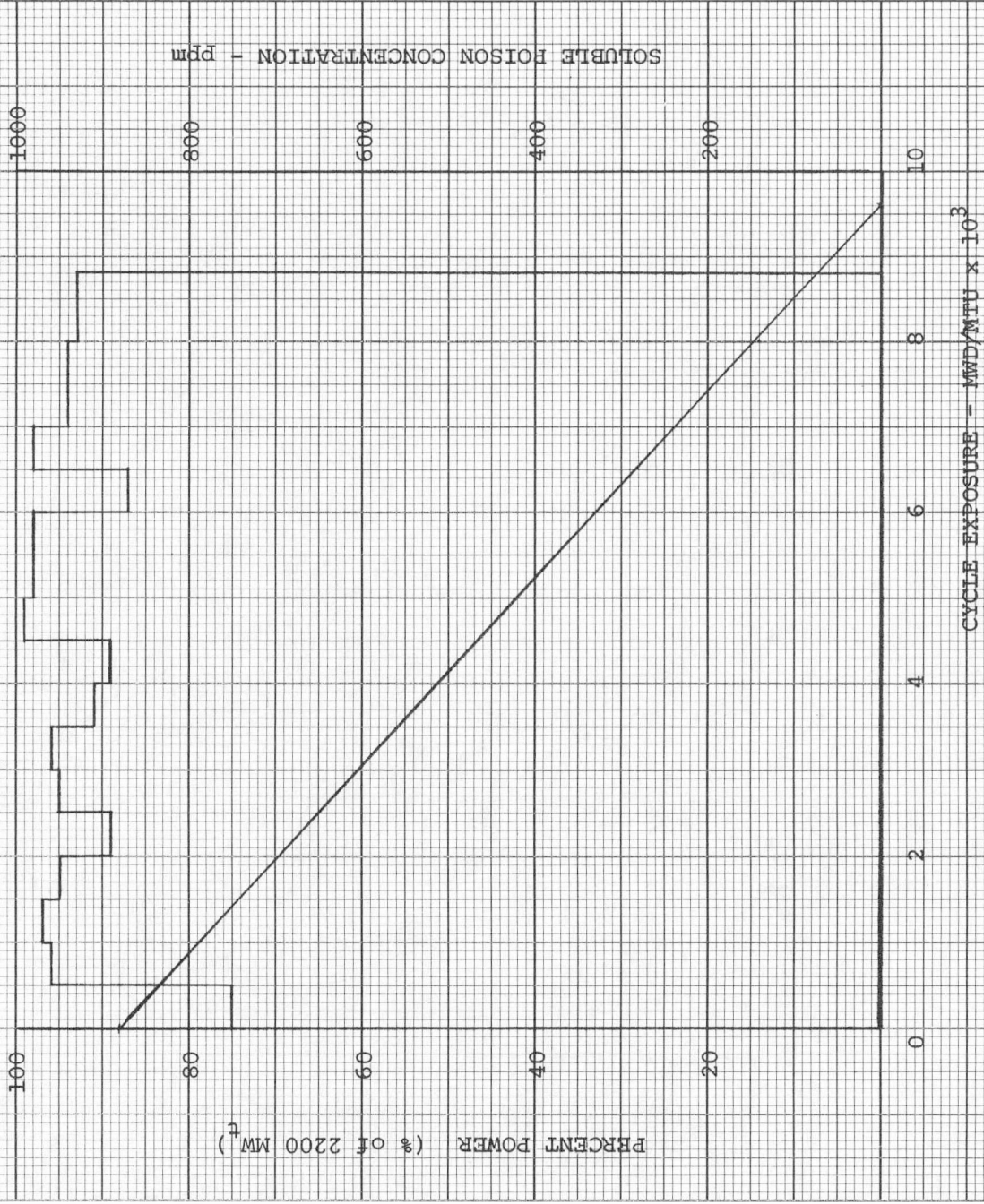
NOTE: Items 2,3, 5 and 6 above are listed at cycle nominal values for use in EPRI-NODE.  
Item 4 is a nominal boron letdown curve for cycle 2  
Actual values of items 1 through 6 are presented in Table 2.4, Part B for state point conditions.

Verified By: ATZ Date: 5/24/76

# Diagram 2.4-1

Turkey Point 3

Cycle 2



NOTE: The soluble poison curve is for the core condition of hot full power, all rods out, equilibrium xenon.

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 1 of 7

CYCLE: 2

## PART B - PWR STATEPOINT

Rev. 1 Date: 4/5/77

Exposure 60 MWD/MTU (12/20/74)

| ITEM (Unit)                                    | VALUE                  | SOURCE                 | COMMENTS                                             |
|------------------------------------------------|------------------------|------------------------|------------------------------------------------------|
| <u>PWR Statepoint Data</u>                     |                        |                        |                                                      |
| 1. Core power (MWt)                            | 2002.                  | FP&L Records<br>TPTRAC | 91% power                                            |
| 2. Total core flow<br>(10 <sup>6</sup> lbs/hr) | 101.5                  | NCCO log sheet         | 100% flow                                            |
| 3. System pressure (psia)                      | 1880.                  | Idem                   | none                                                 |
| 4. Soluble poison concen-<br>tration (ppm)     | 961                    | FP&L Records<br>TPTRAC | none                                                 |
| 5. Inlet temperature (°F)                      | 539                    | NCCO log sheet         | from log sheet<br>T <sub>ave</sub> = 565     ΔT = 53 |
| 6. Time at associated power<br>level (hrs)     | See table below        | FP&L Records<br>TPTRAC | none                                                 |
|                                                |                        |                        |                                                      |
| 7. Xenon condition                             | See power history      | Idem                   | none                                                 |
| 8. Control rod positions<br>(by location)      | Bank D<br>at 220 steps | Idem                   | 228 steps is fully withdrawn<br>position             |
| Verified By: <u>ATZ</u> Date: <u>7/6/76</u>    |                        |                        |                                                      |

REACTOR: Turkey Point 3

CYCLE: 2

Exposure 60 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART B - PWR STATEPOINT

Sheet 2 of 7

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                    | VALUE       |        | SOURCE       |        | COMMENTS                 |
|------------------------------------------------|-------------|--------|--------------|--------|--------------------------|
| 9. Inter-calibrated data from incore traverses | See diagram |        | FP&L Records |        | Diagram # 2.4.2 attached |
|                                                | Time (hrs.) | %Power | Time (hrs.)  | %Power |                          |
| Power level history vs. time before statepoint | 53-74       | 0.     | 23           | 67.    |                          |
|                                                | 52          | 28.    | 16-22        | 69.    |                          |
|                                                | 51          | 32.    | 15           | 68.    |                          |
|                                                | 50          | 33.    | 14           | 70.    |                          |
|                                                | 49          | 25.    | 13           | 71.    |                          |
|                                                | 47-48       | 24.    | 12           | 73.    |                          |
|                                                | 46          | 29.    | 11           | 76.    |                          |
|                                                | 36-45       | 37.    | 10           | 81.    |                          |
|                                                | 35          | 40.    | 8-9          | 84.    |                          |
|                                                | 34          | 42.    | 7            | 87.    |                          |
|                                                | 31-33       | 46.    | 6            | 89.    |                          |
|                                                | 30          | 50.    | 4-5          | 93.    |                          |
|                                                | 29          | 52.2   | 3            | 94.    |                          |
|                                                | 28          | 55.3   | 1-2          | 92.    |                          |
|                                                | 27          | 58.    | 0            | 91.    |                          |
|                                                | 26          | 59.    |              |        |                          |
|                                                | 25          | 60.    |              |        |                          |
|                                                | 24          | 61.    |              |        |                          |

Verified By: AKY Date: 5/26/76

REACTOR: Turkey Point #3

CYCLE: 2

EXPOSURE: 2380 MWD/MTU (3/15/75)

TABLE 2.4 PWR OPERATING DATA  
PART B-PWR STATEPOINTSheet 3 of 7Rev. 0 Date: 7/6/76

| ITEM (Unit)                                    | VALUE            | SOURCE                  | COMMENTS                                          |
|------------------------------------------------|------------------|-------------------------|---------------------------------------------------|
| <u>PWR Statepoint Data</u>                     |                  |                         |                                                   |
| 1. Core power (MWt)                            | 2200.            | FP&L Records<br>TPTRAC  | 100% Power                                        |
| 2. Total core flow ( $10^6$ lbs/hr)            | 101.5            | NCCO log sheet          | 100% Flow                                         |
| 3. System pressure (psia)                      | 1890.            | Idem                    | none                                              |
| 4. Soluble poison concentration (ppm)          | 663.             | FP&L Records<br>TPTRAC  | none                                              |
| 5. Inlet temperature (°F)                      | 539              | NCCO log sheet          | from log sheet<br>$T_{ave} = 566$ $\Delta T = 54$ |
| 6. Time at associated power level (hrs)        | at least 72 hrs. | FP&L Records<br>TPTRAC  | none                                              |
| 7. Xenon condition                             | equilibrium      | inferred from item<br>6 | none                                              |
| 8. Control rod positions (by location)         | all rods out     | NCCO log sheet          | none                                              |
| 9. Inter-calibrated data from incore traverses | see diagram      | FP&L Records            | Diagram 2.4-3 attached                            |
|                                                |                  |                         |                                                   |

Verified By: BJZ Date: 7/19/76

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 4 of 7

CYCLE: 2

## PART B - PWR STATEPOINT

Rev. 0 Date: 4/29/76

Exposure 4680 MWD/MTU (6/2/75)

| ITEM (Unit)                                       | VALUE                  | SOURCE                 | COMMENTS                                               |
|---------------------------------------------------|------------------------|------------------------|--------------------------------------------------------|
| <u>PWR Statepoint Data</u>                        |                        |                        |                                                        |
| 1. Core power (MWt)                               | 2200.                  | FP&L Records<br>TP&RAC | 100% Power                                             |
| 2. Total core flow ( $10^6$ lbs/<br>hr)           | 101.5                  | NCCO log sheet         | 100% Flow                                              |
| 3. System pressure (psia)                         | 1870                   | Idem                   | none                                                   |
| 4. Soluble poison concentra-<br>tion (ppm)        | 457.                   | FP&L Records<br>TP&RAC | none                                                   |
| 5. Inlet temperature ( $^{\circ}$ F)              | 539                    | NCCO log sheet         | Data from log sheet<br>$T_{ave} = 564$ $\Delta T = 54$ |
| 6. Time at associated power<br>level (hrs)        | at least<br>72 hrs.    | Idem                   | none                                                   |
| 7. Xenon condition                                | equilibrium            | Idem                   | inferred from item 6                                   |
| 8. Control rod position<br>(by location)          | Bank D<br>at 222 steps | Idem                   | 288 steps is fully withdrawn<br>position               |
| 9. Inter-calibrated data from<br>incore traverses | See diagram            | FP&L Records           | Diagram # 2.4-4 attached                               |

Verified By: ADZ Date: 7/6/76

REACTOR: Turkey Point 3

TABLE 2.4 PWR OPERATING DATA

Sheet 5 of 7

CYCLE: 2

PART B - PWR STATEPOINT

EXPOSURE: 6120 MWD/MTU (7/25/75)

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE               | SOURCE                 | COMMENTS                                                |
|---------------------------------------------------|---------------------|------------------------|---------------------------------------------------------|
| <u>PWR Statepoint Data</u>                        |                     |                        |                                                         |
| 1. Core Power (MWt)                               | 2134.               | FP&L Records<br>TPTRAC | 97% Power                                               |
| 2. Total Core Flow ( $10^6$ lbs/hr.)              | 101.5               | NCCO log sheet         | 100% Flow                                               |
| 3. System pressure (psia)                         | 1870.               | Idem                   | none                                                    |
| 4. Soluble poison concentration<br>(ppm)          | 463.                | FP&L Records<br>TPTRAC | none                                                    |
| 5. Inlet temperature (°F)                         | 539.                | NCCO log sheet         | Data from log sheet<br>$T_{ave} = 566.$ $\Delta T = 53$ |
| 6. Time at associated power<br>level (hrs)        | See table below     | FP&L Records<br>TPTRAC | none                                                    |
| 7. Xenon Condition                                | See above           | Idem                   | transient condition                                     |
| 8. Control rod position<br>(by location)          | Bank D at 214 steps | Idem                   | 288 steps is fully withdrawn<br>position                |
| 9. Inter-calibrated data from<br>incore traverses | See diagram         | Idem                   | Diagram 2.4-5 attached                                  |
|                                                   |                     |                        |                                                         |
| Verified By: <u>RPY</u> Date: <u>7/19/76</u>      |                     |                        |                                                         |

REACTOR: Turkey Point 3

TABLE 2.4 PWR OPERATING DATA

Sheet 6 of 7

CYCLE: 2

PART B - PWR STATEPOINT

Rev. 1 Date: 4/5/77

Exposure: 6120 MWD/MTU (7/25/75)

| ITEM (Unit)                                       | VALUE             |               | SOURCE            |               | COMMENTS |
|---------------------------------------------------|-------------------|---------------|-------------------|---------------|----------|
| Power level history vs.<br>time before statepoint | <u>Time (hrs)</u> | <u>%Power</u> | <u>Time (hrs)</u> | <u>%Power</u> |          |
|                                                   | 68-83             | 100.          | 29                | 97.           |          |
|                                                   | 67                | 99.5          | 28                | 100.          |          |
|                                                   | 64-66             | 100.          | 26-27             | 99.           |          |
|                                                   | 63                | 73.5          | 23-25             | 0.            |          |
|                                                   | 62                | 60.5          | 21-22             | 2.            |          |
|                                                   | 61                | 60.           | 3-20              | 0.            |          |
|                                                   | 48-60             | 0.            | 2                 | 35.           |          |
|                                                   | 47                | 29.           | 1                 | 67.           |          |
|                                                   | 46                | 58.7          | 0                 | 97.           |          |
|                                                   | 45                | 65.           |                   |               |          |
|                                                   | 44                | 66.2          |                   |               |          |
|                                                   | 43                | 83.           |                   |               |          |
|                                                   | 41-42             | 99.5          |                   |               |          |
|                                                   | 39-40             | 100.          |                   |               |          |
|                                                   | 38                | 99.           |                   |               |          |
|                                                   | 37                | 99.5          |                   |               |          |
|                                                   | 36                | 100.          |                   |               |          |
|                                                   | 35                | 97.           |                   |               |          |
|                                                   | 34                | 99.           |                   |               |          |
|                                                   | 32-33             | 96.           |                   |               |          |
|                                                   | 30-31             | 95.           |                   |               |          |
|                                                   |                   |               |                   |               |          |
|                                                   |                   |               |                   |               |          |

Verified by: AZ Date: 4/27/78

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 7 of 7

CYCLE: 2

## PART B - PWR STATEPOINT

Exposure 8690 MWD/MTU (10/21/75)

Rev. 0 Date: 4/29/76

| ITEM (Unit)                                    | VALUE                                               | SOURCE                 | COMMENTS                                               |
|------------------------------------------------|-----------------------------------------------------|------------------------|--------------------------------------------------------|
| <u>PWR Statepoint Data</u>                     |                                                     |                        |                                                        |
| 1. Core power (MWt)                            | 2200.                                               | FP&L Records<br>TPTRAC | 100% Power                                             |
| 2. Total core flow ( $10^6$ lbs/hr)            | 101.5                                               | NCCO log sheet         | 100% Flow                                              |
| 3. System pressure (psia)                      | 1890                                                | Idem                   | none                                                   |
| 4. Soluble poison concentration (ppm)          | 86.                                                 | FP&L Records<br>TPTRAC | none                                                   |
| 5. Inlet temperature ( $^{\circ}$ F)           | 537.                                                | NCCO log sheet         | Data from log sheet<br>$T_{ave} = 562$ $\Delta T = 53$ |
| 6. Time at associated power level (hrs)        | at least<br>72 hrs.                                 | FP&L Records<br>TPTRAC | none                                                   |
| 7. Xenon condition                             | equilibrium                                         | Idem                   | inferred from item 6                                   |
| 8. Control rod positions (by location)         | Bank D @ 204 steps<br>Safety Rod F 8 @<br>170 steps | Idem                   | 128 steps is fully withdrawn position                  |
| 9. Inter-calibrated data from incore traverses | See diagram                                         | Idem                   | Diagram #2.4.6 attached                                |

Verified By: ALP Date: 7/14/76

Diagram 2.4-2

In-Core Power Distribution Cycle 2  
60 MWD/MTU (12-20-74)

|                  | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.2164 | 0.0000 | 0.0000 | 0.4900 | 0.4561 | 0.0000 |
| 2                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3288 | 0.0000 | 0.0000 | 0.7340 | 0.7212 | 0.0000 |
| 3                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4030 | 0.0000 | 0.0000 | 0.8294 | 0.8485 | 0.0000 |
| 4                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4561 | 0.0000 | 0.0000 | 0.9567 | 0.9758 | 0.0000 |
| 5                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4879 | 0.0000 | 0.0000 | 1.0076 | 1.0606 | 0.0000 |
| 6                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5091 | 0.0000 | 0.0000 | 1.0246 | 1.0861 | 0.0000 |
| 7                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5621 | 0.0000 | 0.0000 | 1.0416 | 1.0925 | 0.0000 |
| 8                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8273 | 0.0000 | 0.0000 | 0.9779 | 1.0182 | 0.0000 |
| 9                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9440 | 0.0000 | 0.0000 | 1.0310 | 1.0925 | 0.0000 |
| 10               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0182 | 0.0000 | 0.0000 | 1.0670 | 1.1137 | 0.0000 |
| 11               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 1.0797 | 1.1349 | 0.0000 |
| 12               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0713 | 0.0000 | 0.0000 | 1.0840 | 1.1413 | 0.0000 |
| 13               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0713 | 0.0000 | 0.0000 | 1.0628 | 1.1031 | 0.0000 |
| 14               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0500 | 0.0000 | 0.0000 | 1.0628 | 1.1031 | 0.0000 |
| 15               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1031 | 0.0000 | 0.0000 | 1.1158 | 1.1561 | 0.0000 |
| 16               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 1.1285 | 1.1858 | 0.0000 |
| 17               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1264 | 0.0000 | 0.0000 | 1.1285 | 1.1879 | 0.0000 |
| 18               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1200 | 0.0000 | 0.0000 | 1.1264 | 1.1667 | 0.0000 |
| 19               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0713 | 0.0000 | 0.0000 | 1.1052 | 1.1243 | 0.0000 |
| 20               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1455 | 0.0000 | 0.0000 | 1.1582 | 1.1837 | 0.0000 |
| 21               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1667 | 0.0000 | 0.0000 | 1.1794 | 1.2091 | 0.0000 |
| 22               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1879 | 0.0000 | 0.0000 | 1.2007 | 1.2346 | 0.0000 |
| 23               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1879 | 0.0000 | 0.0000 | 1.1943 | 1.2346 | 0.0000 |
| 24               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1849 | 0.0000 | 0.0000 | 1.1794 | 1.1879 | 0.0000 |
| 25               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2304 | 0.0000 | 0.0000 | 1.2558 | 1.2622 | 0.0000 |
| 26               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2325 | 0.0000 | 0.0000 | 1.2643 | 1.2410 | 0.0000 |
| 27               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 1.1370 | 1.1031 | 0.0000 |
| 28               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8167 | 0.0000 | 0.0000 | 0.7658 | 0.7637 | 0.0000 |
| 29               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5621 | 0.0000 | 0.0000 | 0.6173 | 0.5303 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.9268 | 1.0000 | 1.0000 | 1.0519 | 1.0795 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 0.000  | 0.000  | 1.330  | 0.000  | 0.000  | 1.202  | 1.169  | 0.000  |
| AVERAGE & PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 0.000  | 0.000  | 1.232  | 0.000  | 0.000  | 1.264  | 1.262  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | 1.00   | 1.00   | 1.00   | -19.47 | 1.00   | 1.00   | -6.55  | -5.39  | 1.00   |

Diagram 2.4-2

Incore Power Distribution, Cycle 2  
60 MWD/MTU (12-20-74)

|                  | 11 L 9 | 12 B 10 | 13 L 4 | 14 F 13 | 15 F 6 | 16 J 12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|------------------|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|
| 1                | 0.4948 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 0.4773  | 0.0000 | 0.3246 | 0.0000 | 0.0000 |
| 2                | 0.7496 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 0.6786  | 0.0000 | 0.4858 | 0.0000 | 0.0000 |
| 3                | 0.8918 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 0.8040  | 0.0000 | 0.5940 | 0.0000 | 0.0000 |
| 4                | 0.9916 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.9546  | 0.0000 | 0.6937 | 0.0000 | 0.0000 |
| 5                | 1.0405 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0288  | 0.0000 | 0.7637 | 0.0000 | 0.0000 |
| 6                | 1.0553 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0543  | 0.0000 | 0.7891 | 0.0000 | 0.0000 |
| 7                | 1.0617 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0564  | 0.0000 | 0.7955 | 0.0000 | 0.0000 |
| 8                | 1.0235 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0013  | 0.0000 | 0.7679 | 0.0000 | 0.0000 |
| 9                | 1.0617 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0331  | 0.0000 | 0.7849 | 0.0000 | 0.0000 |
| 10               | 1.1254 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0797  | 0.0000 | 0.8188 | 0.0000 | 0.0000 |
| 11               | 1.1297 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1010  | 0.0000 | 0.8209 | 0.0000 | 0.0000 |
| 12               | 1.1297 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0988  | 0.0000 | 0.8252 | 0.0000 | 0.0000 |
| 13               | 1.0914 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0606  | 0.0000 | 0.8167 | 0.0000 | 0.0000 |
| 14               | 1.0617 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0246  | 0.0000 | 0.8061 | 0.0000 | 0.0000 |
| 15               | 1.1042 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0755  | 0.0000 | 0.8443 | 0.0000 | 0.0000 |
| 16               | 1.1254 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1031  | 0.0000 | 0.8634 | 0.0000 | 0.0000 |
| 17               | 1.1424 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1094  | 0.0000 | 0.8740 | 0.0000 | 0.0000 |
| 18               | 1.1275 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1031  | 0.0000 | 0.8697 | 0.0000 | 0.0000 |
| 19               | 1.0957 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0606  | 0.0000 | 0.8337 | 0.0000 | 0.0000 |
| 20               | 1.1679 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1243  | 0.0000 | 0.8909 | 0.0000 | 0.0000 |
| 21               | 1.1934 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1519  | 0.0000 | 0.9100 | 0.0000 | 0.0000 |
| 22               | 1.2061 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1816  | 0.0000 | 0.9122 | 0.0000 | 0.0000 |
| 23               | 1.1955 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1710  | 0.0000 | 0.8973 | 0.0000 | 0.0000 |
| 24               | 1.1297 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.1307  | 0.0000 | 0.8655 | 0.0000 | 0.0000 |
| 25               | 1.2465 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.2155  | 0.0000 | 0.9079 | 0.0000 | 0.0000 |
| 26               | 1.2528 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.2282  | 0.0000 | 0.8740 | 0.0000 | 0.0000 |
| 27               | 1.1445 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 1.0925  | 0.0000 | 0.7552 | 0.0000 | 0.0000 |
| 28               | 0.8260 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 0.7467  | 0.0000 | 0.5155 | 0.0000 | 0.0000 |
| 29               | 0.5478 | 0.0000  | 0.0000 | 0.0000  | 0.0000 | 0.5431  | 0.0000 | 0.3437 | 0.0000 | 0.0000 |
| THIMBLE AVERAGE  |        |         |        |         |        |         |        |        |        |        |
|                  | 1.0676 | 1.0000  | 1.0000 | 1.0000  | 1.0000 | 1.0350  | 1.0000 | 0.7825 | 1.0000 | 1.0000 |
| AXIAL PEAK       |        |         |        |         |        |         |        |        |        |        |
|                  | 1.174  | 0.000   | 0.000  | 0.000   | 0.000  | 1.187   | 0.000  | 1.165  | 0.000  | 0.000  |
| AVERAGE * PEAK   |        |         |        |         |        |         |        |        |        |        |
|                  | 1.253  | 0.000   | 0.000  | 0.000   | 0.000  | 1.228   | 0.000  | 0.912  | 0.000  | 0.000  |
| AXIAL DEFSET (%) |        |         |        |         |        |         |        |        |        |        |
|                  | -4.90  | 1.00    | 1.00   | 1.00    | 1.00   | -5.09   | 1.00   | -5.55  | 1.00   | 1.00   |

Diagram 2.4-2

## In-Core Power Distributions, Cycle 2

60 MWD/MTU (12-20-74)

|    | 21 F11           | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.0000           | 0.4480 | 0.5218 | 0.0000 | 0.4247 | 0.0000 | 0.2885 | 0.0000 | 0.0000 | 0.0000 |
| 2  | 0.0000           | 0.6926 | 0.7234 | 0.0000 | 0.6413 | 0.0000 | 0.4476 | 0.0000 | 0.0000 | 0.0000 |
| 3  | 0.0000           | 0.8154 | 0.8485 | 0.0000 | 0.7708 | 0.0000 | 0.5324 | 0.0000 | 0.0000 | 0.0000 |
| 4  | 0.0000           | 0.9301 | 0.9355 | 0.0000 | 0.8918 | 0.0000 | 0.6067 | 0.0000 | 0.0000 | 0.0000 |
| 5  | 0.0000           | 0.9959 | 0.9885 | 0.0000 | 0.9810 | 0.0000 | 0.6597 | 0.0000 | 0.0000 | 0.0000 |
| 6  | 0.0000           | 1.0192 | 1.0097 | 0.0000 | 1.0192 | 0.0000 | 0.6788 | 0.0000 | 0.0000 | 0.0000 |
| 7  | 0.0000           | 1.0192 | 1.0182 | 0.0000 | 1.0405 | 0.0000 | 0.6809 | 0.0000 | 0.0000 | 0.0000 |
| 8  | 0.0000           | 0.9747 | 0.9673 | 0.0000 | 1.0001 | 0.0000 | 0.6640 | 0.0000 | 0.0000 | 0.0000 |
| 9  | 0.0000           | 1.0171 | 0.9673 | 0.0000 | 1.0108 | 0.0000 | 0.6809 | 0.0000 | 0.0000 | 0.0000 |
| 10 | 0.0000           | 1.0506 | 0.9970 | 0.0000 | 1.0405 | 0.0000 | 0.7022 | 0.0000 | 0.0000 | 0.0000 |
| 11 | 0.0000           | 1.0702 | 1.0097 | 0.0000 | 1.0617 | 0.0000 | 0.7128 | 0.0000 | 0.0000 | 0.0000 |
| 12 | 0.0000           | 1.0702 | 1.0225 | 0.0000 | 1.0681 | 0.0000 | 0.7128 | 0.0000 | 0.0000 | 0.0000 |
| 13 | 0.0000           | 1.0617 | 1.0203 | 0.0000 | 1.0638 | 0.0000 | 0.7022 | 0.0000 | 0.0000 | 0.0000 |
| 14 | 0.0000           | 1.0596 | 1.0203 | 0.0000 | 1.0596 | 0.0000 | 0.7022 | 0.0000 | 0.0000 | 0.0000 |
| 15 | 0.0000           | 1.1063 | 1.0734 | 0.0000 | 1.1254 | 0.0000 | 0.7340 | 0.0000 | 0.0000 | 0.0000 |
| 16 | 0.0000           | 1.1339 | 1.0840 | 0.0000 | 1.1488 | 0.0000 | 0.7446 | 0.0000 | 0.0000 | 0.0000 |
| 17 | 0.0000           | 1.1445 | 1.0840 | 0.0000 | 1.1530 | 0.0000 | 0.7446 | 0.0000 | 0.0000 | 0.0000 |
| 18 | 0.0000           | 1.1339 | 1.0734 | 0.0000 | 1.1382 | 0.0000 | 0.7340 | 0.0000 | 0.0000 | 0.0000 |
| 19 | 0.0000           | 1.1021 | 1.0310 | 0.0000 | 1.0978 | 0.0000 | 0.7191 | 0.0000 | 0.0000 | 0.0000 |
| 20 | 0.0000           | 1.1551 | 1.0797 | 0.0000 | 1.1679 | 0.0000 | 0.7594 | 0.0000 | 0.0000 | 0.0000 |
| 21 | 0.0000           | 1.1764 | 1.0882 | 0.0000 | 1.1912 | 0.0000 | 0.7700 | 0.0000 | 0.0000 | 0.0000 |
| 22 | 0.0000           | 1.1976 | 1.1052 | 0.0000 | 1.2104 | 0.0000 | 0.7700 | 0.0000 | 0.0000 | 0.0000 |
| 23 | 0.0000           | 1.1912 | 1.1170 | 0.0000 | 1.1891 | 0.0000 | 0.7552 | 0.0000 | 0.0000 | 0.0000 |
| 24 | 0.0000           | 1.1551 | 1.1052 | 0.0000 | 1.1912 | 0.0000 | 0.7234 | 0.0000 | 0.0000 | 0.0000 |
| 25 | 0.0000           | 1.2125 | 1.2007 | 0.0000 | 1.2104 | 0.0000 | 0.7531 | 0.0000 | 0.0000 | 0.0000 |
| 26 | 0.0000           | 1.1764 | 1.1900 | 0.0000 | 1.1891 | 0.0000 | 0.7276 | 0.0000 | 0.0000 | 0.0000 |
| 27 | 0.0000           | 1.0171 | 1.0628 | 0.0000 | 1.0511 | 0.0000 | 0.6279 | 0.0000 | 0.0000 | 0.0000 |
| 28 | 0.0000           | 0.6936 | 0.6597 | 0.0000 | 0.7198 | 0.0000 | 0.4264 | 0.0000 | 0.0000 | 0.0000 |
| 29 | 0.0000           | 0.6031 | 0.5346 | 0.0000 | 0.5011 | 0.0000 | 0.3203 | 0.0000 | 0.0000 | 0.0000 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 1.0000           | 1.0328 | 1.0011 | 1.0000 | 1.0320 | 1.0000 | 0.6706 | 1.0000 | 1.0000 | 1.0000 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 0.000            | 1.174  | 1.199  | 0.000  | 1.173  | 0.000  | 1.148  | 0.000  | 0.000  | 0.000  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 0.000            | 1.212  | 1.201  | 0.000  | 1.210  | 0.000  | 0.770  | 0.000  | 0.000  | 0.000  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | 1.00             | -6.16  | -4.92  | 1.00   | -7.08  | 1.00   | -4.20  | 1.00   | 1.00   | 1.00   |

Diagram 2.4-2

In-Core Power Distributions, Cycle 2  
60 MWD/MTU (12-20-74)

|                  | 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.0000 | 0.4624 | 0.0000 | 0.0000 | 0.0000 | 0.2591 | 0.0000 | 0.0000 | 0.0000 |
| 2                | 0.0000 | 0.0000 | 0.7149 | 0.0000 | 0.0000 | 0.0000 | 0.4119 | 0.0000 | 0.0000 | 0.0000 |
| 3                | 0.0000 | 0.0000 | 0.8485 | 0.0000 | 0.0000 | 0.0000 | 0.5542 | 0.0000 | 0.0000 | 0.0000 |
| 4                | 0.0000 | 0.0000 | 0.9800 | 0.0000 | 0.0000 | 0.0000 | 0.9152 | 0.0000 | 0.0000 | 0.0000 |
| 5                | 0.0000 | 0.0000 | 1.0500 | 0.0000 | 0.0000 | 0.0000 | 1.0214 | 0.0000 | 0.0000 | 0.0000 |
| 6                | 0.0000 | 0.0000 | 1.0776 | 0.0000 | 0.0000 | 0.0000 | 1.0808 | 0.0000 | 0.0000 | 0.0000 |
| 7                | 0.0000 | 0.0000 | 1.0861 | 0.0000 | 0.0000 | 0.0000 | 1.0851 | 0.0000 | 0.0000 | 0.0000 |
| 8                | 0.0000 | 0.0000 | 1.0416 | 0.0000 | 0.0000 | 0.0000 | 1.0426 | 0.0000 | 0.0000 | 0.0000 |
| 9                | 0.0000 | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 0.0000 | 1.0426 | 0.0000 | 0.0000 | 0.0000 |
| 10               | 0.0000 | 0.0000 | 1.1031 | 0.0000 | 0.0000 | 0.0000 | 1.0851 | 0.0000 | 0.0000 | 0.0000 |
| 11               | 0.0000 | 0.0000 | 1.1222 | 0.0000 | 0.0000 | 0.0000 | 1.1042 | 0.0000 | 0.0000 | 0.0000 |
| 12               | 0.0000 | 0.0000 | 1.1222 | 0.0000 | 0.0000 | 0.0000 | 1.1063 | 0.0000 | 0.0000 | 0.0000 |
| 13               | 0.0000 | 0.0000 | 1.0988 | 0.0000 | 0.0000 | 0.0000 | 1.0893 | 0.0000 | 0.0000 | 0.0000 |
| 14               | 0.0000 | 0.0000 | 1.0840 | 0.0000 | 0.0000 | 0.0000 | 1.0660 | 0.0000 | 0.0000 | 0.0000 |
| 15               | 0.0000 | 0.0000 | 1.1349 | 0.0000 | 0.0000 | 0.0000 | 1.1233 | 0.0000 | 0.0000 | 0.0000 |
| 16               | 0.0000 | 0.0000 | 1.1667 | 0.0000 | 0.0000 | 0.0000 | 1.1275 | 0.0000 | 0.0000 | 0.0000 |
| 17               | 0.0000 | 0.0000 | 1.1794 | 0.0000 | 0.0000 | 0.0000 | 1.1339 | 0.0000 | 0.0000 | 0.0000 |
| 18               | 0.0000 | 0.0000 | 1.1646 | 0.0000 | 0.0000 | 0.0000 | 1.1275 | 0.0000 | 0.0000 | 0.0000 |
| 19               | 0.0000 | 0.0000 | 1.1052 | 0.0000 | 0.0000 | 0.0000 | 1.0999 | 0.0000 | 0.0000 | 0.0000 |
| 20               | 0.0000 | 0.0000 | 1.1710 | 0.0000 | 0.0000 | 0.0000 | 1.1700 | 0.0000 | 0.0000 | 0.0000 |
| 21               | 0.0000 | 0.0000 | 1.1879 | 0.0000 | 0.0000 | 0.0000 | 1.1976 | 0.0000 | 0.0000 | 0.0000 |
| 22               | 0.0000 | 0.0000 | 1.2049 | 0.0000 | 0.0000 | 0.0000 | 1.2019 | 0.0000 | 0.0000 | 0.0000 |
| 23               | 0.0000 | 0.0000 | 1.2049 | 0.0000 | 0.0000 | 0.0000 | 1.2164 | 0.0000 | 0.0000 | 0.0000 |
| 24               | 0.0000 | 0.0000 | 1.1607 | 0.0000 | 0.0000 | 0.0000 | 1.1551 | 0.0000 | 0.0000 | 0.0000 |
| 25               | 0.0000 | 0.0000 | 1.2740 | 0.0000 | 0.0000 | 0.0000 | 1.2486 | 0.0000 | 0.0000 | 0.0000 |
| 26               | 0.0000 | 0.0000 | 1.3025 | 0.0000 | 0.0000 | 0.0000 | 1.2550 | 0.0000 | 0.0000 | 0.0000 |
| 27               | 0.0000 | 0.0000 | 1.1646 | 0.0000 | 0.0000 | 0.0000 | 1.1297 | 0.0000 | 0.0000 | 0.0000 |
| 28               | 0.0000 | 0.0000 | 0.5040 | 0.0000 | 0.0000 | 0.0000 | 0.8069 | 0.0000 | 0.0000 | 0.0000 |
| 29               | 0.0000 | 0.0000 | 0.5303 | 0.0000 | 0.0000 | 0.0000 | 0.5436 | 0.0000 | 0.0000 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.0000 | 1.0763 | 1.0000 | 1.0000 | 1.0000 | 1.0355 | 1.0000 | 1.0000 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 1.210  | 0.000  | 0.000  | 0.000  | 1.212  | 0.000  | 0.000  | 0.000  |
| AVERAGE % PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 1.302  | 0.000  | 0.000  | 0.000  | 1.255  | 0.000  | 0.000  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | 1.00   | -5.84  | 1.00   | 1.00   | 1.00   | -8.28  | 1.00   | 1.00   | 1.00   |

## Diagram 2.4-2

In-Core Power Distributions, Cycle 2  
60 MWD/MTU (12-20-74)

|                  | 41 G10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 F 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.4412 | 0.0000 | 0.0000 | 0.0000 | 0.4412 | 0.0000 | 0.0000 | 0.5091 | 0.0000 |
| 2                | 0.0000 | 0.6788 | 0.0000 | 0.0000 | 0.0000 | 0.6576 | 0.0000 | 0.0000 | 0.7849 | 0.0000 |
| 3                | 0.0000 | 0.8167 | 0.0000 | 0.0000 | 0.0000 | 0.7955 | 0.0000 | 0.0000 | 0.8909 | 0.0000 |
| 4                | 0.0000 | 0.9334 | 0.0000 | 0.0000 | 0.0000 | 0.9334 | 0.0000 | 0.0000 | 1.0076 | 0.0000 |
| 5                | 0.0000 | 1.2197 | 0.0000 | 0.0000 | 0.0000 | 1.0288 | 0.0000 | 0.0000 | 1.0606 | 0.0000 |
| 6                | 0.0000 | 1.2516 | 0.0000 | 0.0000 | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 1.0819 | 0.0000 |
| 7                | 0.0000 | 1.2685 | 0.0000 | 0.0000 | 0.0000 | 1.0713 | 0.0000 | 0.0000 | 1.0925 | 0.0000 |
| 8                | 0.0000 | 1.2516 | 0.0000 | 0.0000 | 0.0000 | 1.0182 | 0.0000 | 0.0000 | 1.0182 | 0.0000 |
| 9                | 0.0000 | 1.0500 | 0.0000 | 0.0000 | 0.0000 | 1.0288 | 0.0000 | 0.0000 | 1.0416 | 0.0000 |
| 10               | 0.0000 | 1.1031 | 0.0000 | 0.0000 | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 1.0776 | 0.0000 |
| 11               | 0.0000 | 1.1137 | 0.0000 | 0.0000 | 0.0000 | 1.0819 | 0.0000 | 0.0000 | 1.0925 | 0.0000 |
| 12               | 0.0000 | 1.1137 | 0.0000 | 0.0000 | 0.0000 | 1.0925 | 0.0000 | 0.0000 | 1.1137 | 0.0000 |
| 13               | 0.0000 | 1.1010 | 0.0000 | 0.0000 | 0.0000 | 1.0713 | 0.0000 | 0.0000 | 1.0988 | 0.0000 |
| 14               | 0.0000 | 1.0861 | 0.0000 | 0.0000 | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 1.0819 | 0.0000 |
| 15               | 0.0000 | 1.1455 | 0.0000 | 0.0000 | 0.0000 | 1.1031 | 0.0000 | 0.0000 | 1.1455 | 0.0000 |
| 16               | 0.0000 | 1.1667 | 0.0000 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 1.1773 | 0.0000 |
| 17               | 0.0000 | 1.1773 | 0.0000 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 1.1773 | 0.0000 |
| 18               | 0.0000 | 1.1561 | 0.0000 | 0.0000 | 0.0000 | 1.1137 | 0.0000 | 0.0000 | 1.1561 | 0.0000 |
| 19               | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 0.0000 | 1.0797 | 0.0000 | 0.0000 | 1.1349 | 0.0000 |
| 20               | 0.0000 | 1.1922 | 0.0000 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 0.0000 | 1.2049 | 0.0000 |
| 21               | 0.0000 | 1.2113 | 0.0000 | 0.0000 | 0.0000 | 1.1455 | 0.0000 | 0.0000 | 1.2304 | 0.0000 |
| 22               | 0.0000 | 1.2304 | 0.0000 | 0.0000 | 0.0000 | 1.0649 | 0.0000 | 0.0000 | 1.2410 | 0.0000 |
| 23               | 0.0000 | 1.2282 | 0.0000 | 0.0000 | 0.0000 | 1.1773 | 0.0000 | 0.0000 | 1.2304 | 0.0000 |
| 24               | 0.0000 | 1.1667 | 0.0000 | 0.0000 | 0.0000 | 1.1561 | 0.0000 | 0.0000 | 1.1879 | 0.0000 |
| 25               | 0.0000 | 1.2346 | 0.0000 | 0.0000 | 0.0000 | 1.2304 | 0.0000 | 0.0000 | 1.2834 | 0.0000 |
| 26               | 0.0000 | 1.2049 | 0.0000 | 0.0000 | 0.0000 | 1.2282 | 0.0000 | 0.0000 | 1.2834 | 0.0000 |
| 27               | 0.0000 | 1.0606 | 0.0000 | 0.0000 | 0.0000 | 1.0925 | 0.0000 | 0.0000 | 1.1455 | 0.0000 |
| 28               | 0.0000 | 0.7318 | 0.0000 | 0.0000 | 0.0000 | 0.7425 | 0.0000 | 0.0000 | 0.7849 | 0.0000 |
| 29               | 0.0000 | 0.5834 | 0.0000 | 0.0000 | 0.0000 | 0.5049 | 0.0000 | 0.0000 | 0.5728 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.0904 | 1.0000 | 1.0000 | 1.0000 | 1.0336 | 1.0000 | 1.0000 | 1.0845 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.163  | 0.000  | 0.000  | 0.000  | 1.190  | 0.000  | 0.000  | 1.183  | 0.000  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.269  | 0.000  | 0.000  | 0.000  | 1.230  | 0.000  | 0.000  | 1.283  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | -3.17  | 1.00   | 1.00   | 1.00   | -5.09  | 1.00   | 1.00   | -6.01  | 1.00   |

Diagram 2.4-3

## Incore Power Distribution, Cycle 2

2380 MWD/MTU (3/15/75)

|    | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.2706 | 0.2378 | 0.5482 | 0.6350 | 0.5640 | 0.0000 | 0.0000 | 0.0000 | 0.4838 | 0.2650 |
| 2  | 0.4582 | 0.4009 | 0.8842 | 0.9410 | 0.8833 | 0.0000 | 0.0000 | 0.0000 | 0.7828 | 0.4485 |
| 3  | 0.5670 | 0.4987 | 1.0474 | 1.0837 | 1.0328 | 0.0000 | 0.0000 | 0.0000 | 0.9390 | 0.5490 |
| 4  | 0.6758 | 0.6183 | 1.1835 | 1.2129 | 1.1483 | 0.0000 | 0.0000 | 0.0000 | 1.0885 | 0.6564 |
| 5  | 0.7479 | 0.6999 | 1.2474 | 1.2646 | 1.1768 | 0.0000 | 0.0000 | 0.0000 | 1.1565 | 0.7379 |
| 6  | 0.7873 | 0.7379 | 1.2692 | 1.2537 | 1.1633 | 0.0000 | 0.0000 | 0.0000 | 1.1836 | 0.7542 |
| 7  | 0.7900 | 0.7379 | 1.2637 | 1.2333 | 1.1320 | 0.0000 | 0.0000 | 0.0000 | 1.1741 | 0.7556 |
| 8  | 0.7642 | 0.7107 | 1.1971 | 1.1585 | 1.0641 | 0.0000 | 0.0000 | 0.0000 | 1.1225 | 0.7338 |
| 9  | 0.7669 | 0.7270 | 1.1862 | 1.1313 | 1.0355 | 0.0000 | 0.0000 | 0.0000 | 1.1293 | 0.7406 |
| 10 | 0.7846 | 0.7529 | 1.2012 | 1.1395 | 1.0396 | 0.0000 | 0.0000 | 0.0000 | 1.1524 | 0.7529 |
| 11 | 0.7832 | 0.7651 | 1.2012 | 1.1313 | 1.0328 | 0.0000 | 0.0000 | 0.0000 | 1.1537 | 0.7542 |
| 12 | 0.7778 | 0.7583 | 1.1930 | 1.1137 | 1.0165 | 0.0000 | 0.0000 | 0.0000 | 1.1470 | 0.7474 |
| 13 | 0.7615 | 0.7447 | 1.1672 | 1.0878 | 0.9852 | 0.0000 | 0.0000 | 0.0000 | 1.1089 | 0.7270 |
| 14 | 0.7343 | 0.7202 | 1.1155 | 1.0525 | 0.9445 | 0.0000 | 0.0000 | 0.0000 | 1.0681 | 0.7067 |
| 15 | 0.7642 | 0.7529 | 1.1631 | 1.0878 | 0.9744 | 0.0000 | 0.0000 | 0.0000 | 1.1211 | 0.7406 |
| 16 | 0.7710 | 0.7664 | 1.1699 | 1.0878 | 0.9730 | 0.0000 | 0.0000 | 0.0000 | 1.1374 | 0.7542 |
| 17 | 0.7778 | 0.7664 | 1.1672 | 1.0797 | 0.9689 | 0.0000 | 0.0000 | 0.0000 | 1.1334 | 0.7542 |
| 18 | 0.7601 | 0.7447 | 1.1522 | 1.0633 | 0.9485 | 0.0000 | 0.0000 | 0.0000 | 1.1116 | 0.7270 |
| 19 | 0.7302 | 0.7134 | 1.0951 | 1.0294 | 0.9105 | 0.0000 | 0.0000 | 0.0000 | 1.0668 | 0.6999 |
| 20 | 0.7842 | 0.7515 | 1.1617 | 1.0837 | 0.9621 | 0.0000 | 0.0000 | 0.0000 | 1.1089 | 0.7352 |
| 21 | 0.7751 | 0.7610 | 1.1794 | 1.0946 | 0.9757 | 0.0000 | 0.0000 | 0.0000 | 1.1238 | 0.7488 |
| 22 | 0.7669 | 0.7342 | 1.1903 | 1.0973 | 0.9866 | 0.0000 | 0.0000 | 0.0000 | 1.1334 | 0.7447 |
| 23 | 0.7438 | 0.7243 | 1.1808 | 1.0919 | 0.9880 | 0.0000 | 0.0000 | 0.0000 | 1.1211 | 0.7134 |
| 24 | 0.6908 | 0.6591 | 1.0883 | 1.0633 | 0.9309 | 0.0000 | 0.0000 | 0.0000 | 1.0274 | 0.6659 |
| 25 | 0.7057 | 0.6713 | 1.1767 | 1.1286 | 1.0097 | 0.0000 | 0.0000 | 0.0000 | 1.0899 | 0.6758 |
| 26 | 0.6486 | 0.6088 | 1.1427 | 1.1137 | 0.9880 | 0.0000 | 0.0000 | 0.0000 | 1.0382 | 0.6251 |
| 27 | 0.5262 | 0.4960 | 0.9971 | 0.9682 | 0.8765 | 0.0000 | 0.0000 | 0.0000 | 0.8942 | 0.5164 |
| 28 | 0.3495 | 0.3261 | 0.7210 | 0.6826 | 0.6455 | 0.0000 | 0.0000 | 0.0000 | 0.6401 | 0.3465 |
| 29 | 0.2067 | 0.1835 | 0.4285 | 0.4243 | 0.3846 | 0.0000 | 0.0000 | 0.0000 | 0.3737 | 0.2174 |

| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |  |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| 0.6933           | 0.6636 | 1.1154 | 1.0716 | 0.9738 | 1.0000 | 1.0000 | 1.0000 | 1.0494 | 0.6698 |  |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |  |
| 1.140            | 1.155  | 1.138  | 1.180  | 1.208  | 0.000  | 0.000  | 0.000  | 1.128  | 1.128  |  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |  |
| 0.790            | 0.766  | 1.249  | 1.265  | 1.177  | 0.000  | 0.000  | 0.000  | 1.184  | 0.755  |  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |  |
| 2.17             | 0.84   | 2.54   | 4.42   | 5.80   | 1.00   | 1.00   | 1.00   | 2.16   | 2.03   |  |

Diagram 2.4-3

## Incore Power Distribution, Cycle 2

2380 MWD/MTU (3/15/75)

|    | 11 L 9 | 12 B 10 | 13 L 4 | 14 F 13 | 15 F 6 | 16 J 12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|----|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|
| 1  | 0.0000 | 0.3397  | 0.5572 | 0.6249  | 0.6010 | 0.0000  | 0.4469 | 0.0000 | 0.0000 | 0.6358 |
| 2  | 0.0000 | 0.6047  | 0.8222 | 0.7920  | 0.9682 | 0.0000  | 0.7578 | 0.0000 | 0.0000 | 0.9527 |
| 3  | 0.0000 | 0.7765  | 0.9445 | 0.9482  | 1.0905 | 0.0000  | 0.9376 | 0.0000 | 0.0000 | 1.1123 |
| 4  | 0.0000 | 0.9309  | 1.1211 | 1.1166  | 1.2333 | 0.0000  | 1.1358 | 0.0000 | 0.0000 | 1.2299 |
| 5  | 0.0000 | 1.0396  | 1.2027 | 1.2131  | 1.2755 | 0.0000  | 1.2450 | 0.0000 | 0.0000 | 1.2585 |
| 6  | 0.0000 | 1.0940  | 1.2040 | 1.2497  | 1.2796 | 0.0000  | 1.2954 | 0.0000 | 0.0000 | 1.2551 |
| 7  | 0.0000 | 1.1075  | 1.1891 | 1.2538  | 1.2510 | 0.0000  | 1.3038 | 0.0000 | 0.0000 | 1.2249 |
| 8  | 0.0000 | 1.0736  | 1.1143 | 1.1927  | 1.1449 | 0.0000  | 1.2618 | 0.0000 | 0.0000 | 1.1459 |
| 9  | 0.0000 | 1.0831  | 1.1388 | 1.1859  | 1.1381 | 0.0000  | 1.2854 | 0.0000 | 0.0000 | 1.1325 |
| 10 | 0.0000 | 1.1075  | 1.1470 | 1.2022  | 1.1381 | 0.0000  | 1.3106 | 0.0000 | 0.0000 | 1.1341 |
| 11 | 0.0000 | 1.1103  | 1.1456 | 1.2008  | 1.1327 | 0.0000  | 1.3223 | 0.0000 | 0.0000 | 1.1039 |
| 12 | 0.0000 | 1.1075  | 1.1279 | 1.2008  | 1.1150 | 0.0000  | 1.3173 | 0.0000 | 0.0000 | 1.1039 |
| 13 | 0.0000 | 1.0804  | 1.0953 | 1.1886  | 1.0769 | 0.0000  | 1.2954 | 0.0000 | 0.0000 | 1.0703 |
| 14 | 0.0000 | 1.0505  | 1.0872 | 1.1587  | 1.0430 | 0.0000  | 1.2762 | 0.0000 | 0.0000 | 1.0199 |
| 15 | 0.0000 | 1.0967  | 1.1293 | 1.2253  | 1.0810 | 0.0000  | 1.3374 | 0.0000 | 0.0000 | 1.0669 |
| 16 | 0.0000 | 1.1075  | 1.1347 | 1.2497  | 1.0851 | 0.0000  | 1.3458 | 0.0000 | 0.0000 | 1.0669 |
| 17 | 0.0000 | 1.1035  | 1.1320 | 1.2511  | 1.0756 | 0.0000  | 1.3425 | 0.0000 | 0.0000 | 1.0559 |
| 18 | 0.0000 | 1.0858  | 1.1048 | 1.2239  | 1.0498 | 0.0000  | 1.3206 | 0.0000 | 0.0000 | 1.0400 |
| 19 | 0.0000 | 1.0396  | 1.0804 | 1.1519  | 1.0090 | 0.0000  | 1.2618 | 0.0000 | 0.0000 | 0.9947 |
| 20 | 0.0000 | 1.0953  | 1.1320 | 1.1981  | 1.0633 | 0.0000  | 1.3526 | 0.0000 | 0.0000 | 1.0400 |
| 21 | 0.0000 | 1.1116  | 1.1347 | 1.2144  | 1.0769 | 0.0000  | 1.3710 | 0.0000 | 0.0000 | 1.0585 |
| 22 | 0.0000 | 1.1021  | 1.1320 | 1.2239  | 1.0892 | 0.0000  | 1.3559 | 0.0000 | 0.0000 | 1.0703 |
| 23 | 0.0000 | 1.0641  | 1.1184 | 1.2063  | 1.0878 | 0.0000  | 1.3173 | 0.0000 | 0.0000 | 1.0737 |
| 24 | 0.0000 | 0.9852  | 1.0804 | 1.1451  | 1.0498 | 0.0000  | 1.2198 | 0.0000 | 0.0000 | 1.0199 |
| 25 | 0.0000 | 1.0056  | 1.1252 | 1.1927  | 1.1150 | 0.0000  | 1.2450 | 0.0000 | 0.0000 | 1.1089 |
| 26 | 0.0000 | 0.9241  | 1.0668 | 1.1180  | 1.0973 | 0.0000  | 1.1560 | 0.0000 | 0.0000 | 1.0905 |
| 27 | 0.0000 | 0.7610  | 0.9037 | 0.9414  | 0.9682 | 0.0000  | 0.9678 | 0.0000 | 0.0000 | 0.9695 |
| 28 | 0.0000 | 0.5164  | 0.6183 | 0.6561  | 0.6758 | 0.0000  | 0.6570 | 0.0000 | 0.0000 | 0.7006 |
| 29 | 0.0000 | 0.3194  | 0.3873 | 0.3844  | 0.4514 | 0.0000  | 0.3965 | 0.0000 | 0.0000 | 0.4234 |

| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.0000           | 0.9817 | 1.0609 | 1.1216 | 1.0692 | 1.0000 | 1.1932 | 1.0000 | 1.0000 | 1.0000 | 1.0583 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
| 0.000            | 1.132  | 1.135  | 1.118  | 1.197  | 0.000  | 1.149  | 0.000  | 0.000  | 0.000  | 1.189  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
| 0.000            | 1.112  | 1.204  | 1.254  | 1.280  | 0.000  | 1.371  | 0.000  | 0.000  | 0.000  | 1.253  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
| 1.00             | 0.98   | 2.23   | 0.80   | 5.37   | 1.00   | -0.45  | 1.00   | 1.00   | 1.00   | 5.25   |

Diagram 2.4-3

## Incore Power Distribution, Cycle 2

2380 MWD/MTU (3/15/75)

|                  | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.6026 | 0.4281 | 0.6074 | 0.5707 | 0.4172 | 0.5472 | 0.2530 | 0.6428 | 0.5917 | 0.2719 |
| 2                | 0.8774 | 0.7162 | 0.8493 | 0.9707 | 0.6591 | 0.7688 | 0.4231 | 0.9649 | 0.8638 | 0.4347 |
| 3                | 1.0134 | 0.8697 | 1.0111 | 1.0859 | 0.8154 | 0.9534 | 0.5319 | 1.1238 | 1.0202 | 0.5438 |
| 4                | 1.1522 | 1.0396 | 1.0967 | 1.2377 | 0.9716 | 1.1045 | 0.6339 | 1.2339 | 1.1699 | 0.6479 |
| 5                | 1.2107 | 1.1238 | 1.1402 | 1.2743 | 1.0776 | 1.2136 | 0.7019 | 1.2774 | 1.2319 | 0.7218 |
| 6                | 1.2066 | 1.1633 | 1.1374 | 1.2662 | 1.1211 | 1.2536 | 0.7332 | 1.2584 | 1.2447 | 0.7587 |
| 7                | 1.1780 | 1.1660 | 1.1103 | 1.2513 | 1.1874 | 1.2488 | 0.7319 | 1.2421 | 1.2202 | 0.7654 |
| 8                | 1.0978 | 1.1238 | 1.0423 | 1.1537 | 1.0967 | 1.2018 | 0.7128 | 1.1755 | 1.1427 | 0.7335 |
| 9                | 1.0964 | 1.1483 | 0.9961 | 1.1564 | 1.0953 | 1.1884 | 0.7128 | 1.1415 | 1.1223 | 0.7486 |
| 10               | 1.0923 | 1.1755 | 0.9975 | 1.1632 | 1.1184 | 1.2136 | 0.7278 | 1.1429 | 1.1277 | 0.7654 |
| 11               | 1.0801 | 1.1755 | 0.9866 | 1.1605 | 1.1211 | 1.2220 | 0.7278 | 1.1211 | 1.1263 | 0.7671 |
| 12               | 1.0692 | 1.1592 | 0.9784 | 1.1523 | 1.1157 | 1.2270 | 0.7223 | 1.1048 | 1.1195 | 0.7604 |
| 13               | 1.0447 | 1.1374 | 0.9608 | 1.1130 | 1.0967 | 1.2052 | 0.7033 | 1.0776 | 1.0855 | 0.7419 |
| 14               | 1.0066 | 1.1143 | 0.9105 | 1.0629 | 1.0736 | 1.0541 | 0.6679 | 1.0260 | 1.0542 | 0.7218 |
| 15               | 1.0502 | 1.1619 | 0.9567 | 1.0913 | 1.1320 | 1.1968 | 0.7019 | 1.0749 | 1.0883 | 0.7604 |
| 16               | 1.0379 | 1.1823 | 0.9485 | 1.0967 | 1.1483 | 1.2102 | 0.7087 | 1.0790 | 1.0869 | 0.7755 |
| 17               | 1.0284 | 1.1768 | 0.9404 | 1.0995 | 1.1320 | 1.2186 | 0.7046 | 1.0695 | 1.0896 | 0.7755 |
| 18               | 1.0189 | 1.1551 | 0.9241 | 1.0873 | 1.1184 | 1.1968 | 0.6883 | 1.0532 | 1.0719 | 0.7503 |
| 19               | 0.9930 | 1.1143 | 0.8765 | 1.0520 | 1.0804 | 1.1464 | 0.6475 | 0.9988 | 1.0474 | 0.7251 |
| 20               | 1.0542 | 1.1619 | 0.9186 | 1.0927 | 1.1320 | 1.2062 | 0.6938 | 1.0668 | 1.0091 | 0.7604 |
| 21               | 1.0679 | 1.1755 | 0.9254 | 1.1089 | 1.1415 | 1.2085 | 0.7019 | 1.0885 | 1.1087 | 0.7721 |
| 22               | 1.0610 | 1.1864 | 0.9309 | 1.1117 | 1.1415 | 1.2136 | 0.7006 | 1.0994 | 1.1087 | 0.7671 |
| 23               | 1.0515 | 1.1619 | 0.9431 | 1.1062 | 1.1075 | 1.2052 | 0.6747 | 1.0940 | 1.0951 | 0.7369 |
| 24               | 0.9998 | 1.0940 | 0.9037 | 1.0751 | 1.0260 | 1.1129 | 0.6203 | 1.0192 | 1.0570 | 0.6832 |
| 25               | 1.0747 | 1.1171 | 0.9880 | 1.1469 | 1.0668 | 1.1716 | 0.6407 | 1.1048 | 1.1087 | 0.6966 |
| 26               | 1.0515 | 1.0260 | 0.9649 | 1.1266 | 0.9934 | 1.1045 | 0.5931 | 1.1089 | 1.0787 | 0.6294 |
| 27               | 0.9182 | 0.8561 | 0.8493 | 0.9883 | 0.8358 | 0.9500 | 0.4979 | 0.9920 | 0.9250 | 0.5059 |
| 28               | 0.6584 | 0.5834 | 0.6319 | 0.6928 | 0.5572 | 0.6348 | 0.3482 | 0.7202 | 0.6530 | 0.3391 |
| 29               | 0.4067 | 0.3941 | 0.3819 | 0.4487 | 0.3533 | 0.3911 | 0.2258 | 0.4254 | 0.4176 | 0.2887 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0248 | 1.0600 | 0.9433 | 1.0869 | 1.0178 | 1.1123 | 0.6390 | 1.0712 | 1.0592 | 0.6811 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.181  | 1.119  | 1.209  | 1.172  | 1.128  | 1.127  | 1.147  | 1.193  | 1.175  | 1.139  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.211  | 1.186  | 1.140  | 1.274  | 1.148  | 1.254  | 0.733  | 1.277  | 1.245  | 0.775  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 4.21   | 0.45   | 6.00   | 4.35   | 0.18   | 0.99   | 2.93   | 5.02   | 3.68   | 0.97   |

Diagram 2.4-3

## Incore Power Distribution, Cycle 2

2380 MWD/MTU (3/15/75)

|    | 31 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 B 12 | 36 B 8 | 37 H 4 | 38 H 11 | 39 D 5 | 40 L 6 |
|----|------------------|--------|--------|--------|---------|--------|--------|---------|--------|--------|
| 1  | 0.3478           | 0.6391 | 0.0000 | 0.2400 | 0.0000  | 0.3061 | 0.4874 | 0.6234  | 0.5623 | 0.6334 |
| 2  | 0.6194           | 0.9274 | 0.0000 | 0.4163 | 0.0000  | 0.5237 | 0.8290 | 0.9258  | 0.8309 | 0.9107 |
| 3  | 0.7757           | 1.0400 | 0.0000 | 0.5254 | 0.0000  | 0.6421 | 0.9784 | 1.0854  | 0.9685 | 1.0501 |
| 4  | 0.9862           | 1.1721 | 0.0000 | 0.6513 | 0.0000  | 0.7958 | 1.1183 | 1.2165  | 1.1196 | 1.1963 |
| 5  | 1.0473           | 1.2061 | 0.0000 | 0.7352 | 0.0000  | 0.8883 | 1.1687 | 1.2719  | 1.1917 | 1.2551 |
| 6  | 1.0990           | 1.2034 | 0.0000 | 0.7822 | 0.0000  | 0.9345 | 1.1728 | 1.2786  | 1.2119 | 1.2551 |
| 7  | 1.1003           | 1.1694 | 0.0000 | 0.7889 | 0.0000  | 0.9441 | 1.1551 | 1.2450  | 1.2085 | 1.2215 |
| 8  | 1.0677           | 1.0797 | 0.0000 | 0.7604 | 0.0000  | 0.9046 | 1.1075 | 1.1610  | 1.1582 | 1.1375 |
| 9  | 1.0677           | 1.0701 | 0.0000 | 0.7855 | 0.0000  | 0.9277 | 1.0763 | 1.1442  | 1.1531 | 1.1173 |
| 10 | 1.1017           | 1.0769 | 0.0000 | 0.8107 | 0.0000  | 0.9454 | 1.0926 | 1.1409  | 1.1649 | 1.1173 |
| 11 | 1.1017           | 1.0661 | 0.0000 | 0.8191 | 0.0000  | 0.9495 | 1.0872 | 1.1325  | 1.1649 | 1.1056 |
| 12 | 1.1003           | 1.0525 | 0.0000 | 0.8174 | 0.0000  | 0.9481 | 1.0736 | 1.1157  | 1.1582 | 1.1005 |
| 13 | 1.0786           | 1.0226 | 0.0000 | 0.7880 | 0.0000  | 0.9291 | 1.0423 | 1.0938  | 1.1313 | 1.0720 |
| 14 | 1.0473           | 0.9818 | 0.0000 | 0.7688 | 0.0000  | 0.9182 | 0.9852 | 1.0518  | 1.0994 | 1.0357 |
| 15 | 1.0908           | 1.0226 | 0.0000 | 0.7939 | 0.0000  | 0.9577 | 1.0287 | 1.1022  | 1.1414 | 1.0753 |
| 16 | 1.1044           | 1.0226 | 0.0000 | 0.7939 | 0.0000  | 0.9726 | 1.0287 | 1.1005  | 1.1498 | 1.0753 |
| 17 | 1.1017           | 1.0212 | 0.0000 | 0.7855 | 0.0000  | 0.9685 | 1.0192 | 1.0871  | 1.1481 | 1.0703 |
| 18 | 1.0813           | 0.9954 | 0.0000 | 0.7682 | 0.0000  | 0.9400 | 1.0111 | 1.0653  | 1.1263 | 1.0535 |
| 19 | 1.0405           | 0.9546 | 0.0000 | 0.7520 | 0.0000  | 0.9250 | 0.9649 | 1.0216  | 1.1028 | 1.0115 |
| 20 | 1.0990           | 1.0049 | 0.0000 | 0.7990 | 0.0000  | 0.9699 | 1.0246 | 1.0720  | 1.1649 | 1.0535 |
| 21 | 1.1139           | 0.9961 | 0.0000 | 0.8174 | 0.0000  | 0.9849 | 1.0342 | 1.0837  | 1.1817 | 1.0659 |
| 22 | 1.1125           | 1.0062 | 0.0000 | 0.8074 | 0.0000  | 0.9740 | 1.0396 | 1.0871  | 1.1800 | 1.0737 |
| 23 | 1.0745           | 1.0171 | 0.0000 | 0.7704 | 0.0000  | 0.9345 | 1.0355 | 1.0808  | 1.1498 | 1.0753 |
| 24 | 0.9998           | 0.9954 | 0.0000 | 0.7167 | 0.0000  | 0.8706 | 0.9716 | 1.0484  | 1.1070 | 1.0501 |
| 25 | 1.0107           | 1.0620 | 0.0000 | 0.7050 | 0.0000  | 0.8706 | 1.0396 | 1.1120  | 1.1531 | 1.1005 |
| 26 | 0.9359           | 1.0566 | 0.0000 | 0.6328 | 0.0000  | 0.7890 | 1.0151 | 1.0854  | 1.1078 | 1.0659 |
| 27 | 0.7689           | 0.9274 | 0.0000 | 0.5036 | 0.0000  | 0.6325 | 0.8901 | 0.9510  | 0.9400 | 0.9325 |
| 28 | 0.5108           | 0.6554 | 0.0000 | 0.3323 | 0.0000  | 0.4217 | 0.6453 | 0.6822  | 0.6462 | 0.6536 |
| 29 | 0.3247           | 0.4175 | 0.0000 | 0.1981 | 0.0000  | 0.2313 | 0.3805 | 0.4268  | 0.3928 | 0.4201 |
|    | THIMBLE AVERAGE  |        |        |        |         |        |        |         |        |        |
|    | 0.9848           | 1.0123 | 1.0000 | 0.7017 | 1.0000  | 0.8475 | 1.0021 | 1.0708  | 1.0835 | 1.0524 |
|    | AXIAL PEAK       |        |        |        |         |        |        |         |        |        |
|    | 1.131            | 1.191  | 0.000  | 1.167  | 0.000   | 1.162  | 1.170  | 1.194   | 1.118  | 1.193  |
|    | AVERAGE * PEAK   |        |        |        |         |        |        |         |        |        |
|    | 1.114            | 1.206  | 0.000  | 0.819  | 0.000   | 0.985  | 1.173  | 1.279   | 1.212  | 1.255  |
|    | AXIAL OFFSET (%) |        |        |        |         |        |        |         |        |        |
|    | 0.91             | 5.19   | 1.00   | 1.46   | 1.00    | 0.15   | 4.31   | 4.90    | 1.61   | 4.73   |

Diagram 2.4-3

## Incore Power Distribution, Cycle 2

2380 MWD/MTU (3/15/75)

|                  | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 F11 | 48 L11 | 49 E 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.5624 | 0.4380 | 0.4707 | 0.5126 | 0.4906 | 0.4838 | 0.5569 | 0.5719 | 0.5572 | 0.0030 |
| 2                | 0.8911 | 0.7441 | 0.7291 | 0.8050 | 0.7847 | 0.7501 | 0.9198 | 0.9006 | 0.6833 | 0.0030 |
| 3                | 1.0650 | 0.8937 | 0.9060 | 0.9614 | 0.9275 | 0.9241 | 1.0507 | 1.0501 | 0.9988 | 0.0030 |
| 4                | 1.1302 | 1.0883 | 1.0488 | 1.1245 | 1.1022 | 1.0695 | 1.2095 | 1.1723 | 1.1551 | 0.0030 |
| 5                | 1.2592 | 1.1930 | 1.1236 | 1.1939 | 1.1761 | 1.1415 | 1.2538 | 1.2266 | 1.2067 | 0.0030 |
| 6                | 1.2688 | 1.2447 | 1.1481 | 1.2224 | 1.2013 | 1.1673 | 1.2555 | 1.2348 | 1.2176 | 0.0030 |
| 7                | 1.2688 | 1.2556 | 1.1372 | 1.2197 | 1.1896 | 1.1728 | 1.2471 | 1.2307 | 1.2027 | 0.0030 |
| 8                | 1.2144 | 1.2134 | 1.0991 | 1.1585 | 1.1123 | 1.1238 | 1.1800 | 1.1655 | 1.1143 | 0.0030 |
| 9                | 1.2008 | 1.2474 | 1.0964 | 1.1653 | 1.1291 | 1.1103 | 1.1917 | 1.0922 | 1.1075 | 0.0030 |
| 10               | 1.2212 | 1.2869 | 1.1073 | 1.1857 | 1.1409 | 1.1238 | 1.1968 | 1.1071 | 1.1103 | 0.0030 |
| 11               | 1.2212 | 1.2909 | 1.1005 | 1.1871 | 1.1425 | 1.1238 | 1.1884 | 1.1057 | 1.1075 | 0.0030 |
| 12               | 1.2131 | 1.2787 | 1.0937 | 1.1789 | 1.1375 | 1.1211 | 1.1750 | 1.0949 | 1.1048 | 0.0030 |
| 13               | 1.1845 | 1.2474 | 1.0706 | 1.1517 | 1.1039 | 1.0912 | 1.1380 | 1.1356 | 1.0804 | 0.0030 |
| 14               | 1.1897 | 1.2202 | 1.0230 | 1.1069 | 1.0737 | 1.0355 | 1.1129 | 1.0922 | 1.0396 | 0.0030 |
| 15               | 1.1805 | 1.2651 | 1.0855 | 1.1517 | 1.1173 | 1.0858 | 1.1548 | 1.1383 | 1.0790 | 0.0030 |
| 16               | 1.2008 | 1.2787 | 1.1019 | 1.1653 | 1.1173 | 1.0980 | 1.1666 | 1.1479 | 1.0926 | 0.0030 |
| 17               | 1.1859 | 1.2746 | 1.1087 | 1.1653 | 1.1123 | 1.0967 | 1.1599 | 1.1451 | 1.0912 | 0.0030 |
| 18               | 1.1764 | 1.2474 | 1.0828 | 1.1436 | 1.0905 | 1.0817 | 1.1347 | 1.1288 | 1.0695 | 0.0030 |
| 19               | 1.1125 | 1.2202 | 1.0026 | 1.0905 | 1.0619 | 1.0219 | 1.0961 | 1.0799 | 1.0260 | 0.0030 |
| 20               | 1.1818 | 1.2719 | 1.0570 | 1.1313 | 1.1073 | 1.0763 | 1.1548 | 1.1316 | 1.0804 | 0.0030 |
| 21               | 1.1995 | 1.2855 | 1.0624 | 1.1572 | 1.1241 | 1.0899 | 1.1682 | 1.1560 | 1.0940 | 0.0030 |
| 22               | 1.2008 | 1.2869 | 1.0733 | 1.1667 | 1.1257 | 1.0980 | 1.1716 | 1.1628 | 1.0967 | 0.0030 |
| 23               | 1.1873 | 1.2474 | 1.0719 | 1.1517 | 1.1123 | 1.0858 | 1.1548 | 1.1574 | 1.0872 | 0.0030 |
| 24               | 1.1193 | 1.1726 | 0.9808 | 1.0769 | 1.0535 | 1.0083 | 1.1129 | 1.1112 | 1.0396 | 0.0030 |
| 25               | 1.1805 | 1.1821 | 1.0665 | 1.1341 | 1.1039 | 1.0817 | 1.1582 | 1.1669 | 1.1103 | 0.0030 |
| 26               | 1.1397 | 1.0910 | 1.0352 | 1.0878 | 1.0703 | 1.0355 | 1.1095 | 1.1356 | 1.0804 | 0.0030 |
| 27               | 0.9903 | 0.9073 | 0.9060 | 0.9206 | 0.9157 | 0.8996 | 0.9668 | 0.9821 | 0.9377 | 0.0030 |
| 28               | 0.7186 | 0.6081 | 0.6679 | 0.6350 | 0.6334 | 0.6482 | 0.6932 | 0.6969 | 0.6618 | 0.0030 |
| 29               | 0.4279 | 0.3700 | 0.3891 | 0.3903 | 0.3848 | 0.3628 | 0.4331 | 0.4388 | 0.4077 | 0.0030 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.1267 | 1.1410 | 1.0148 | 1.0818 | 1.0502 | 1.0281 | 1.1077 | 1.0876 | 1.0485 | 1.0030 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.126  | 1.131  | 1.131  | 1.130  | 1.144  | 1.141  | 1.133  | 1.135  | 1.161  | 0.003  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.269  | 1.291  | 1.148  | 1.222  | 1.201  | 1.173  | 1.256  | 1.235  | 1.218  | 0.003  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 2.38   | 0.52   | 1.79   | 2.30   | 2.20   | 2.41   | 3.01   | 1.55   | 3.19   | 1.03   |

Diagram 2.4-4

In-Core Power Distributions, Cycle 2

4680 MWD/MTU (6/2/75)

|                  | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.2966 | 0.2537 | 0.5471 | 0.6444 | 0.5711 | 0.0000 | 0.0000 | 0.0000 | 0.5122 | 0.2896 |
| 2                | 0.4734 | 0.4198 | 0.8666 | 0.8840 | 0.8812 | 0.0000 | 0.0000 | 0.0000 | 0.8176 | 0.4623 |
| 3                | 0.5655 | 0.5141 | 1.0197 | 1.0416 | 1.0210 | 0.0000 | 0.0000 | 0.0000 | 0.9537 | 0.5566 |
| 4                | 0.6627 | 0.6324 | 1.1395 | 1.1425 | 1.1302 | 0.0000 | 0.0000 | 0.0000 | 1.1017 | 0.6549 |
| 5                | 0.7233 | 0.6988 | 1.1927 | 1.1992 | 1.1568 | 0.0000 | 0.0000 | 0.0000 | 1.1591 | 0.7081 |
| 6                | 0.7523 | 0.7227 | 1.2127 | 1.1929 | 1.1501 | 0.0000 | 0.0000 | 0.0000 | 1.1698 | 0.7479 |
| 7                | 0.7536 | 0.7214 | 1.2127 | 1.1765 | 1.1262 | 0.0000 | 0.0000 | 0.0000 | 1.1684 | 0.7479 |
| 8                | 0.7384 | 0.6855 | 1.1594 | 1.1299 | 1.0569 | 0.0000 | 0.0000 | 0.0000 | 1.1631 | 0.7014 |
| 9                | 0.7384 | 0.7054 | 1.1395 | 1.0794 | 1.0410 | 0.0000 | 0.0000 | 0.0000 | 1.1137 | 0.7254 |
| 10               | 0.7510 | 0.7320 | 1.1634 | 1.1046 | 1.0516 | 0.0000 | 0.0000 | 0.0000 | 1.1431 | 0.7386 |
| 11               | 0.7536 | 0.7386 | 1.1688 | 1.1009 | 1.0543 | 0.0000 | 0.0000 | 0.0000 | 1.1471 | 0.7413 |
| 12               | 0.7523 | 0.7386 | 1.1688 | 1.0971 | 1.0476 | 0.0000 | 0.0000 | 0.0000 | 1.1458 | 0.7347 |
| 13               | 0.7410 | 0.7254 | 1.1528 | 1.0756 | 1.0237 | 0.0000 | 0.0000 | 0.0000 | 1.1057 | 0.7214 |
| 14               | 0.7132 | 0.7054 | 1.0862 | 1.0290 | 0.9811 | 0.0000 | 0.0000 | 0.0000 | 1.0764 | 0.7014 |
| 15               | 0.7536 | 0.7386 | 1.1554 | 1.0857 | 1.0277 | 0.0000 | 0.0000 | 0.0000 | 1.1404 | 0.7413 |
| 16               | 0.7649 | 0.7519 | 1.1688 | 1.0971 | 1.0343 | 0.0000 | 0.0000 | 0.0000 | 1.1604 | 0.7572 |
| 17               | 0.7662 | 0.7586 | 1.1688 | 1.0958 | 1.0303 | 0.0000 | 0.0000 | 0.0000 | 1.1591 | 0.7572 |
| 18               | 0.7523 | 0.7386 | 1.1554 | 1.0857 | 1.0197 | 0.0000 | 0.0000 | 0.0000 | 1.1431 | 0.7214 |
| 19               | 0.7321 | 0.7121 | 1.0862 | 1.0353 | 0.9811 | 0.0000 | 0.0000 | 0.0000 | 1.0897 | 0.7147 |
| 20               | 0.7649 | 0.7519 | 1.1727 | 1.1009 | 1.0396 | 0.0000 | 0.0000 | 0.0000 | 1.1471 | 0.7479 |
| 21               | 0.7776 | 0.7652 | 1.1927 | 1.1210 | 1.0543 | 0.0000 | 0.0000 | 0.0000 | 1.1698 | 0.7652 |
| 22               | 0.7776 | 0.7652 | 1.2057 | 1.1261 | 1.0689 | 0.0000 | 0.0000 | 0.0000 | 1.1844 | 0.7652 |
| 23               | 0.7611 | 0.7386 | 1.2060 | 1.1261 | 1.0849 | 0.0000 | 0.0000 | 0.0000 | 1.1831 | 0.7426 |
| 24               | 0.7144 | 0.6921 | 1.1128 | 1.0731 | 1.0210 | 0.0000 | 0.0000 | 0.0000 | 1.0924 | 0.7014 |
| 25               | 0.7384 | 0.7121 | 1.2167 | 1.1639 | 1.1089 | 0.0000 | 0.0000 | 0.0000 | 1.1764 | 0.7174 |
| 26               | 0.6879 | 0.6589 | 1.1927 | 1.1740 | 1.0942 | 0.0000 | 0.0000 | 0.0000 | 1.1404 | 0.6722 |
| 27               | 0.5743 | 0.5527 | 1.0596 | 1.0479 | 0.9811 | 0.0000 | 0.0000 | 0.0000 | 0.9990 | 0.5656 |
| 28               | 0.3787 | 0.3667 | 0.7801 | 0.7579 | 0.7281 | 0.0000 | 0.0000 | 0.0000 | 0.7296 | 0.3959 |
| 29               | 0.2335 | 0.2338 | 0.4739 | 0.4754 | 0.4553 | 0.0000 | 0.0000 | 0.0000 | 0.4388 | 0.2630 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 0.6903 | 0.6674 | 1.1096 | 1.0680 | 1.0182 | 1.0000 | 1.0000 | 1.0000 | 1.0784 | 0.6781 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.126  | 1.147  | 1.096  | 1.123  | 1.136  | 0.000  | 0.000  | 0.000  | 1.098  | 1.128  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.778  | 0.765  | 1.217  | 1.199  | 1.157  | 0.000  | 0.000  | 0.000  | 1.184  | 0.765  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -0.21  | -1.15  | -0.01  | 1.11   | 1.87   | 1.00   | 1.00   | 1.00   | -0.44  | -0.38  |

Diagram 2.4-4

In-Core Power Distributions, Cycle 2  
4680 MWD/MTU (6/2/75)

|    | 11 L 9 | 12 B 10 | 13 L 4 | 14 F 13 | 15 F 6 | 16 J 12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|----|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|
| 1  | 0.0000 | 0.3607  | 0.5652 | 0.5731  | 0.5711 | 0.0000  | 0.4658 | 0.0000 | 0.0000 | 0.6347 |
| 2  | 0.0000 | 0.6070  | 0.8178 | 0.7750  | 0.9123 | 0.0000  | 0.7406 | 0.0000 | 0.0000 | 0.9238 |
| 3  | 0.0000 | 0.7534  | 0.9242 | 0.9265  | 1.0576 | 0.0000  | 0.9124 | 0.0000 | 0.0000 | 1.0822 |
| 4  | 0.0000 | 0.8866  | 1.0838 | 1.0654  | 1.1713 | 0.0000  | 1.0429 | 0.0000 | 0.0000 | 1.1717 |
| 5  | 0.0000 | 0.9781  | 1.1569 | 1.1600  | 1.2180 | 0.0000  | 1.1556 | 0.0000 | 0.0000 | 1.1992 |
| 6  | 0.0000 | 1.0197  | 1.1569 | 1.1941  | 1.2256 | 0.0000  | 1.1968 | 0.0000 | 0.0000 | 1.1951 |
| 7  | 0.0000 | 1.0223  | 1.1436 | 1.1941  | 1.2092 | 0.0000  | 1.2105 | 0.0000 | 0.0000 | 1.1785 |
| 8  | 0.0000 | 0.9930  | 1.0838 | 1.1537  | 1.1397 | 0.0000  | 1.1762 | 0.0000 | 0.0000 | 1.1166 |
| 9  | 0.0000 | 1.0064  | 1.0944 | 1.1158  | 1.1018 | 0.0000  | 1.1666 | 0.0000 | 0.0000 | 1.0987 |
| 10 | 0.0000 | 1.0303  | 1.1117 | 1.1474  | 1.1144 | 0.0000  | 1.2009 | 0.0000 | 0.0000 | 1.1166 |
| 11 | 0.0000 | 1.0356  | 1.1171 | 1.1537  | 0.7354 | 0.0000  | 1.2105 | 0.0000 | 0.0000 | 1.1138 |
| 12 | 0.0000 | 1.0330  | 1.1077 | 1.1537  | 1.1081 | 0.0000  | 1.2188 | 0.0000 | 0.0000 | 1.1097 |
| 13 | 0.0000 | 1.0263  | 1.0811 | 1.1537  | 1.0866 | 0.0000  | 1.2078 | 0.0000 | 0.0000 | 1.0822 |
| 14 | 0.0000 | 0.9797  | 1.0572 | 1.1032  | 1.0323 | 0.0000  | 1.1391 | 0.0000 | 0.0000 | 1.0340 |
| 15 | 0.0000 | 1.0343  | 1.1077 | 1.1916  | 1.0955 | 0.0000  | 1.2421 | 0.0000 | 0.0000 | 1.0890 |
| 16 | 0.0000 | 1.0476  | 1.1237 | 1.2231  | 1.1081 | 0.0000  | 1.2614 | 0.0000 | 0.0000 | 1.0959 |
| 17 | 0.0000 | 1.0476  | 1.1250 | 1.2282  | 1.1081 | 0.0000  | 1.2627 | 0.0000 | 0.0000 | 1.0959 |
| 18 | 0.0000 | 1.0396  | 1.1104 | 1.2143  | 1.0866 | 0.0000  | 1.2490 | 0.0000 | 0.0000 | 1.0753 |
| 19 | 0.0000 | 0.9930  | 1.0772 | 1.1158  | 1.0197 | 0.0000  | 1.1803 | 0.0000 | 0.0000 | 1.0271 |
| 20 | 0.0000 | 1.0490  | 1.1370 | 1.1764  | 1.0892 | 0.0000  | 1.2834 | 0.0000 | 0.0000 | 1.0863 |
| 21 | 0.0000 | 1.0716  | 1.1503 | 1.2042  | 1.1144 | 0.0000  | 1.3108 | 0.0000 | 0.0000 | 1.1056 |
| 22 | 0.0000 | 1.0703  | 1.1516 | 1.2168  | 1.1334 | 0.0000  | 1.3108 | 0.0000 | 0.0000 | 1.1193 |
| 23 | 0.0000 | 1.0436  | 1.1476 | 1.2168  | 1.1334 | 0.0000  | 1.2765 | 0.0000 | 0.0000 | 1.1235 |
| 24 | 0.0000 | 0.9531  | 1.1104 | 1.1411  | 1.0765 | 0.0000  | 1.1391 | 0.0000 | 0.0000 | 1.0753 |
| 25 | 0.0000 | 1.0130  | 1.1769 | 1.2231  | 1.1713 | 0.0000  | 1.2463 | 0.0000 | 0.0000 | 1.1717 |
| 26 | 0.0000 | 0.9531  | 1.1370 | 1.1790  | 1.1713 | 0.0000  | 1.1940 | 0.0000 | 0.0000 | 1.1579 |
| 27 | 0.0000 | 0.8067  | 0.9907 | 1.0149  | 1.0513 | 0.0000  | 1.0360 | 0.0000 | 0.0000 | 1.0340 |
| 28 | 0.0000 | 0.5804  | 0.6982 | 0.7372  | 0.7796 | 0.0000  | 0.7544 | 0.0000 | 0.0000 | 0.7586 |
| 29 | 0.0000 | 0.4073  | 0.4388 | 0.4367  | 0.4827 | 0.0000  | 0.5482 | 0.0000 | 0.0000 | 0.4695 |
|    | 1.0000 | 0.9448  | 1.0601 | 1.1030  | 1.0635 | 1.0000  | 1.1369 | 1.0000 | 1.0000 | 1.0710 |
|    | 0.000  | 1.134   | 1.110  | 1.114   | 1.152  | 0.000   | 1.153  | 0.000  | 0.000  | 1.120  |
|    | 0.000  | 1.072   | 1.177  | 1.228   | 1.226  | 0.000   | 1.311  | 0.000  | 0.000  | 1.199  |
|    | 1.00   | -1.23   | -0.46  | -1.70   | 0.38   | 1.00    | -3.04  | 1.00   | 1.00   | 1.93   |

Diagram 2.4-4

In-Core Power Distributions, Cycle 2  
4680 MWD/MTU (6/2/75)

|    | 21 F11           | 22 N 5 | 23 J10 | 24 J 5 | 25 M 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.6204           | 0.4419 | 0.6396 | 0.5593 | 0.4526 | 0.5659 | 0.2833 | 0.6482 | 0.5937 | 0.2687 |
| 2  | 0.8463           | 0.7002 | 0.8471 | 0.9209 | 0.7015 | 0.7724 | 0.4575 | 0.9268 | 0.8466 | 0.4410 |
| 3  | 0.9857           | 0.8679 | 0.9827 | 1.0657 | 0.8346 | 0.9376 | 0.5439 | 1.0668 | 0.9930 | 0.5375 |
| 4  | 1.1053           | 0.9930 | 1.0865 | 1.1791 | 0.9944 | 1.0822 | 0.6383 | 1.1664 | 1.1262 | 0.6340 |
| 5  | 1.1651           | 1.0796 | 1.1131 | 1.2232 | 1.0756 | 1.1717 | 0.6962 | 1.2043 | 1.1861 | 0.6891 |
| 6  | 1.1651           | 1.1142 | 1.1131 | 1.2207 | 1.1142 | 1.1923 | 0.7181 | 1.2017 | 1.1927 | 0.7157 |
| 7  | 1.1385           | 1.1168 | 1.0931 | 1.2106 | 1.1262 | 1.1854 | 0.7181 | 1.1916 | 1.1727 | 0.7157 |
| 8  | 1.0748           | 1.0889 | 1.0333 | 1.1602 | 1.0609 | 1.1372 | 0.6902 | 1.1173 | 1.0995 | 0.6960 |
| 9  | 1.0615           | 1.0889 | 0.9974 | 1.1199 | 1.0769 | 1.1304 | 0.7005 | 1.1135 | 1.0862 | 0.7056 |
| 10 | 1.0708           | 1.1288 | 1.0027 | 1.1388 | 1.0915 | 1.1593 | 0.7221 | 1.1261 | 1.0969 | 0.7263 |
| 11 | 1.0694           | 1.1302 | 1.0014 | 1.1413 | 1.0982 | 1.1785 | 0.7221 | 1.1210 | 1.1062 | 0.7291 |
| 12 | 1.0655           | 1.1262 | 0.9974 | 1.1438 | 1.1009 | 1.1854 | 0.7168 | 1.1122 | 1.0929 | 0.7235 |
| 13 | 1.0429           | 1.1128 | 0.9841 | 1.1237 | 1.0822 | 1.1648 | 0.7008 | 1.0857 | 1.0729 | 0.7139 |
| 14 | 0.9990           | 1.0596 | 0.9535 | 1.0468 | 1.0742 | 1.1097 | 0.6875 | 1.0441 | 1.0330 | 0.6960 |
| 15 | 1.0482           | 1.1461 | 1.0014 | 1.1086 | 1.1315 | 1.1689 | 0.7141 | 1.0908 | 1.0796 | 0.7373 |
| 16 | 1.0469           | 1.1594 | 1.0053 | 1.1149 | 1.1541 | 1.1827 | 0.7221 | 1.1034 | 1.0876 | 0.7511 |
| 17 | 1.0469           | 1.1634 | 0.9960 | 1.1250 | 1.1528 | 1.1854 | 0.7221 | 1.1034 | 1.0929 | 0.7552 |
| 18 | 1.0389           | 1.1554 | 0.9827 | 1.1262 | 1.1302 | 1.1703 | 0.7035 | 1.0920 | 1.0862 | 0.7332 |
| 19 | 1.0057           | 1.0729 | 0.9428 | 1.0468 | 1.1009 | 1.1304 | 0.6875 | 1.0403 | 1.0596 | 0.7180 |
| 20 | 1.0854           | 1.1554 | 0.9894 | 1.1250 | 1.1581 | 1.1854 | 0.7274 | 1.1072 | 1.1195 | 0.7456 |
| 21 | 1.1093           | 1.1754 | 0.9960 | 1.1602 | 1.1794 | 1.1923 | 0.7407 | 1.1324 | 1.1828 | 0.7649 |
| 22 | 1.1013           | 1.1940 | 1.0093 | 1.1703 | 1.1887 | 1.2006 | 0.7341 | 1.1475 | 1.1895 | 0.7690 |
| 23 | 1.0920           | 1.1887 | 1.0200 | 1.1728 | 1.1581 | 1.1992 | 0.7141 | 1.1450 | 1.1262 | 0.7470 |
| 24 | 1.0322           | 1.0862 | 0.9934 | 1.0657 | 1.1009 | 1.1441 | 0.6742 | 1.0756 | 1.0729 | 0.6960 |
| 25 | 1.1359           | 1.1794 | 1.0838 | 1.2056 | 1.1488 | 1.2006 | 0.6902 | 1.1702 | 1.1528 | 0.7180 |
| 26 | 1.1252           | 1.1128 | 1.0639 | 1.2106 | 1.0876 | 1.1441 | 0.6476 | 1.1765 | 1.1395 | 0.6684 |
| 27 | 1.0057           | 0.9531 | 0.9535 | 1.0884 | 0.9278 | 0.9927 | 0.5452 | 1.0492 | 1.0064 | 0.5651 |
| 28 | 0.7400           | 0.6869 | 0.7101 | 0.8113 | 0.6376 | 0.7035 | 0.3817 | 0.7503 | 0.7268 | 0.3859 |
| 29 | 0.4610           | 0.5271 | 0.4561 | 0.4926 | 0.4220 | 0.4392 | 0.2487 | 0.4830 | 0.4739 | 0.2481 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 1.0337           | 1.0543 | 0.9822 | 1.0983 | 1.0402 | 1.0968 | 0.6566 | 1.0795 | 1.0593 | 0.6692 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.127            | 1.133  | 1.133  | 1.114  | 1.143  | 1.095  | 1.128  | 1.116  | 1.126  | 1.149  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 1.165            | 1.194  | 1.113  | 1.223  | 1.189  | 1.201  | 0.741  | 1.204  | 1.193  | 0.769  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | 1.05             | -2.43  | 2.00   | 0.99   | -2.33  | -0.52  | 0.22   | 1.55   | 0.75   | -1.50  |

Diagram 2.4-4

In-Core Power Distributions, Cycle 2  
4680 MWD/MTU (6/2/75)

|    | 31 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.3452           | 0.6437 | 0.0000 | 0.2501 | 0.0000 | 0.3278 | 0.5018 | 0.6224 | 0.5730 | 0.6313 |
| 2  | 0.6009           | 0.8642 | 0.0000 | 0.4328 | 0.0000 | 0.5343 | 0.8519 | 0.8780 | 0.8409 | 0.8583 |
| 3  | 0.7609           | 1.0217 | 0.0000 | 0.5263 | 0.0000 | 0.6476 | 0.9930 | 1.0319 | 0.9206 | 1.0096 |
| 4  | 0.9561           | 1.1098 | 0.0000 | 0.6279 | 0.0000 | 0.7808 | 1.1168 | 1.1460 | 1.0855 | 1.1265 |
| 5  | 0.9876           | 1.1539 | 0.0000 | 0.7035 | 0.0000 | 0.8541 | 1.1581 | 1.2037 | 1.1363 | 1.1897 |
| 6  | 1.0254           | 1.1476 | 0.0000 | 0.7406 | 0.0000 | 0.8874 | 1.1648 | 1.2078 | 1.1473 | 1.1911 |
| 7  | 1.0305           | 1.1287 | 0.0000 | 0.7461 | 0.0000 | 0.8874 | 1.1475 | 1.1803 | 1.1460 | 1.1677 |
| 8  | 1.0116           | 1.0796 | 0.0000 | 0.7310 | 0.0000 | 0.8541 | 1.0915 | 1.1116 | 1.0649 | 1.0990 |
| 9  | 0.9977           | 1.0342 | 0.0000 | 0.7310 | 0.0000 | 0.8675 | 1.0769 | 1.0924 | 1.1061 | 1.0673 |
| 10 | 1.0254           | 1.0582 | 0.0000 | 0.7640 | 0.0000 | 0.8901 | 1.0982 | 1.1020 | 1.1157 | 1.0783 |
| 11 | 1.0330           | 1.0582 | 0.0000 | 0.7708 | 0.0000 | 0.8981 | 1.0982 | 1.0979 | 1.1253 | 1.0783 |
| 12 | 1.0330           | 1.0531 | 0.0000 | 0.7695 | 0.0000 | 0.8941 | 1.0876 | 1.0924 | 1.1240 | 1.0783 |
| 13 | 1.0254           | 1.0342 | 0.0000 | 0.7585 | 0.0000 | 0.8808 | 1.0636 | 1.0745 | 1.0924 | 1.0439 |
| 14 | 0.9813           | 0.9713 | 0.0000 | 0.7159 | 0.0000 | 0.8808 | 1.0143 | 1.0333 | 1.0869 | 1.0233 |
| 15 | 1.0405           | 1.0355 | 0.0000 | 0.7626 | 0.0000 | 0.9114 | 1.0636 | 1.0979 | 1.1198 | 1.0770 |
| 16 | 1.0620           | 1.0456 | 0.0000 | 0.7640 | 0.0000 | 0.9274 | 1.0689 | 1.1047 | 1.1336 | 1.0797 |
| 17 | 1.0607           | 1.0468 | 0.0000 | 0.7585 | 0.0000 | 0.9247 | 1.0663 | 1.0979 | 1.1336 | 1.0783 |
| 18 | 1.0456           | 1.0342 | 0.0000 | 0.7461 | 0.0000 | 0.9021 | 1.0609 | 1.0800 | 1.1061 | 1.0646 |
| 19 | 1.0002           | 0.9650 | 0.0000 | 0.7131 | 0.0000 | 0.8874 | 1.0237 | 1.0278 | 1.1144 | 1.0302 |
| 20 | 1.0632           | 1.0280 | 0.0000 | 0.7763 | 0.0000 | 0.9341 | 1.0889 | 1.0937 | 1.1679 | 1.0715 |
| 21 | 1.0884           | 1.0342 | 0.0000 | 0.7969 | 0.0000 | 0.9341 | 1.1089 | 1.1047 | 1.1940 | 1.0852 |
| 22 | 1.0884           | 1.0494 | 0.0000 | 0.7969 | 0.0000 | 0.9541 | 1.1142 | 1.1130 | 1.1927 | 1.0990 |
| 23 | 1.0607           | 0.9839 | 0.0000 | 0.7997 | 0.0000 | 0.9247 | 1.1142 | 1.1198 | 1.1542 | 1.1058 |
| 24 | 0.9876           | 1.0091 | 0.0000 | 0.7269 | 0.0000 | 0.8741 | 0.9784 | 1.0608 | 1.1487 | 1.0715 |
| 25 | 1.0280           | 1.1161 | 0.0000 | 0.7035 | 0.0000 | 0.8874 | 1.1381 | 1.1652 | 1.1913 | 1.1471 |
| 26 | 0.9662           | 1.1250 | 0.0000 | 0.6870 | 0.0000 | 0.8221 | 1.1222 | 1.1418 | 1.1432 | 1.1255 |
| 27 | 0.8264           | 1.0091 | 0.0000 | 0.5661 | 0.0000 | 0.6876 | 0.9984 | 1.0154 | 0.9687 | 1.0027 |
| 28 | 0.5820           | 0.7382 | 0.0000 | 0.3985 | 0.0000 | 0.4677 | 0.7281 | 0.7475 | 0.7049 | 0.7136 |
| 29 | 0.4082           | 0.4686 | 0.0000 | 0.2748 | 0.0000 | 0.2745 | 0.4486 | 0.4740 | 0.4383 | 0.4653 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 0.9552           | 1.0175 | 1.0000 | 0.6884 | 1.0000 | 0.8256 | 1.0397 | 1.0632 | 1.0704 | 1.0469 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.139            | 1.134  | 0.000  | 1.162  | 0.000  | 1.156  | 1.120  | 1.136  | 1.116  | 1.135  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 1.088            | 1.154  | 0.000  | 0.800  | 0.000  | 0.954  | 1.165  | 1.208  | 1.104  | 1.191  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | -1.58            | 2.17   | 1.00   | -1.18  | 1.00   | -1.57  | 1.30   | 1.52   | -0.94  | 1.43   |

Diagram 2.4-4

## In-Core Power Distributions, Cycle 2

4680 MWD/MTU (6/2/75)

|    | 41 D10 | 42 G14 | 43 H13 | 44 L 8 | 45 M 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.5719 | 0.4482 | 0.4915 | 0.5359 | 0.4993 | 0.5101 | 0.5342 | 0.5567 | 0.5412 | 0.0000 |
| 2  | 0.8944 | 0.7323 | 0.7533 | 0.7818 | 0.7730 | 0.7918 | 0.8674 | 0.8571 | 0.8631 | 0.0000 |
| 3  | 1.0355 | 0.9043 | 0.9127 | 0.9634 | 0.9105 | 0.9246 | 1.0147 | 1.0098 | 0.9934 | 0.0000 |
| 4  | 1.1640 | 1.0484 | 1.0442 | 1.0920 | 1.0604 | 1.0708 | 1.1290 | 1.1108 | 1.1277 | 0.0000 |
| 5  | 1.2119 | 1.1364 | 1.1066 | 1.1652 | 1.1265 | 1.1345 | 1.1785 | 1.1613 | 1.1796 | 0.0000 |
| 6  | 1.2182 | 1.1791 | 1.1159 | 1.1866 | 1.1457 | 1.1505 | 1.1813 | 1.1701 | 1.1942 | 0.0000 |
| 7  | 1.2182 | 1.1871 | 1.1119 | 1.1841 | 1.1375 | 1.1452 | 1.1813 | 1.1701 | 1.1796 | 0.0000 |
| 8  | 1.1678 | 1.1564 | 1.0721 | 1.1437 | 1.0770 | 1.0920 | 1.1400 | 1.1386 | 1.1117 | 0.0000 |
| 9  | 1.1590 | 1.1684 | 1.0588 | 1.1160 | 1.0673 | 1.0814 | 1.1125 | 1.1057 | 1.0998 | 0.0000 |
| 10 | 1.1779 | 1.2111 | 1.0801 | 1.1551 | 1.0921 | 1.0987 | 1.1496 | 1.1335 | 1.1117 | 0.0000 |
| 11 | 1.1829 | 1.2218 | 1.0787 | 1.1614 | 1.1017 | 1.1040 | 1.1524 | 1.1373 | 1.1117 | 0.0000 |
| 12 | 1.1816 | 1.2151 | 1.0721 | 1.1614 | 1.1017 | 1.1040 | 1.1482 | 1.1360 | 1.1131 | 0.0000 |
| 13 | 1.1627 | 1.1951 | 1.0588 | 1.1450 | 1.0770 | 1.0841 | 1.1290 | 1.1133 | 1.0865 | 0.0000 |
| 14 | 1.1237 | 1.1484 | 1.0123 | 1.1072 | 1.0261 | 1.0349 | 1.0285 | 1.0881 | 1.0466 | 0.0000 |
| 15 | 1.1867 | 1.2155 | 1.0801 | 1.1412 | 1.0880 | 1.0907 | 1.0904 | 1.1360 | 1.1024 | 0.0000 |
| 16 | 1.1993 | 1.2285 | 1.1000 | 1.1664 | 1.0907 | 1.1066 | 1.1400 | 1.1487 | 1.1264 | 0.0000 |
| 17 | 1.1993 | 1.2255 | 1.1133 | 1.1664 | 1.0921 | 1.1080 | 1.1634 | 1.1487 | 1.1264 | 0.0000 |
| 18 | 1.1816 | 1.2191 | 1.0973 | 1.1576 | 1.0880 | 1.0973 | 1.1606 | 1.1360 | 1.1131 | 0.0000 |
| 19 | 1.1250 | 1.1551 | 1.0123 | 1.0908 | 1.0054 | 1.0442 | 1.1441 | 1.0628 | 1.0599 | 0.0000 |
| 20 | 1.1968 | 1.2351 | 1.0787 | 1.1425 | 1.1017 | 1.1000 | 1.1056 | 1.1335 | 1.1304 | 0.0000 |
| 21 | 1.2220 | 1.2618 | 1.0894 | 1.1702 | 1.1237 | 1.1173 | 1.1538 | 1.1613 | 1.1530 | 0.0000 |
| 22 | 1.2270 | 1.2725 | 1.1080 | 1.1866 | 1.1333 | 1.1305 | 1.1772 | 1.1777 | 1.1583 | 0.0000 |
| 23 | 1.2207 | 1.2525 | 1.1119 | 1.1828 | 1.1292 | 1.1279 | 1.1882 | 1.1815 | 1.1530 | 0.0000 |
| 24 | 1.1703 | 1.1618 | 1.0150 | 1.0555 | 1.0742 | 1.0575 | 1.0780 | 1.0729 | 1.0984 | 0.0000 |
| 25 | 1.2282 | 1.2231 | 1.1292 | 1.1816 | 1.1361 | 1.1531 | 1.1978 | 1.1992 | 1.1929 | 0.0000 |
| 26 | 1.2068 | 1.1578 | 1.1133 | 1.1500 | 1.1292 | 1.1239 | 1.1703 | 1.2093 | 1.1702 | 0.0000 |
| 27 | 1.0506 | 1.0030 | 0.9924 | 0.9420 | 0.9504 | 0.9844 | 0.9775 | 1.0477 | 1.0359 | 0.0000 |
| 28 | 0.7558 | 0.7283 | 0.7267 | 0.6532 | 0.6685 | 0.7014 | 0.7683 | 0.7447 | 0.7540 | 0.0000 |
| 29 | 0.4951 | 0.5349 | 0.4331 | 0.4502 | 0.4291 | 0.4198 | 0.4791 | 0.4923 | 0.4614 | 0.0000 |
|    | 1.1286 | 1.1192 | 1.0253 | 1.0801 | 1.0347 | 1.0437 | 1.0869 | 1.0863 | 1.0748 | 1.0000 |
|    | 1.038  | 1.137  | 1.101  | 1.099  | 1.107  | 1.105  | 1.102  | 1.113  | 1.111  | 0.000  |
|    | 1.228  | 1.272  | 1.129  | 1.187  | 1.146  | 1.153  | 1.198  | 1.209  | 1.194  | 0.000  |
|    | -0.15  | -2.13  | -0.63  | 0.53   | 0.03   | 0.03   | 0.05   | -0.20  | -0.04  | 1.00   |

Diagram 2.4-5

## Incore Power Distributions

6120 MWD/MTU (7/25/75)

|                  | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 R 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.2956 | 0.2599 | 0.5580 | 0.5780 | 0.0000 | 0.4523 | 0.2729 | 0.5669 | 0.0000 | 0.3191 |
| 2                | 0.4760 | 0.4194 | 0.8699 | 0.8508 | 0.0000 | 0.7053 | 0.4446 | 0.8742 | 0.0000 | 0.4927 |
| 3                | 0.5840 | 0.5312 | 1.0225 | 0.9985 | 0.0000 | 0.8049 | 0.5458 | 1.0462 | 0.0000 | 0.5753 |
| 4                | 0.6750 | 0.6299 | 1.1571 | 1.1602 | 0.0000 | 0.9383 | 0.6516 | 1.1584 | 0.0000 | 0.6778 |
| 5                | 0.7375 | 0.7039 | 1.2244 | 1.2122 | 0.0000 | 0.9920 | 0.7129 | 1.2091 | 0.0000 | 0.7373 |
| 6                | 0.7673 | 0.7368 | 1.2441 | 1.2094 | 0.0000 | 1.0196 | 0.7436 | 1.2106 | 0.0000 | 0.7605 |
| 7                | 0.7702 | 0.7368 | 1.2457 | 1.1953 | 0.0000 | 1.0196 | 0.7421 | 1.2014 | 0.0000 | 0.7638 |
| 8                | 0.7531 | 0.7154 | 1.1899 | 1.1250 | 0.0000 | 0.9659 | 0.7206 | 1.1430 | 0.0000 | 0.7324 |
| 9                | 0.7460 | 0.7105 | 1.1718 | 1.1082 | 0.0000 | 0.9858 | 0.7252 | 1.1200 | 0.0000 | 0.7406 |
| 10               | 0.7673 | 0.7450 | 1.1981 | 1.1222 | 0.0000 | 1.0150 | 0.7482 | 1.1415 | 0.0000 | 0.7572 |
| 11               | 0.7645 | 0.7532 | 1.2063 | 1.1124 | 0.0000 | 1.0196 | 0.7543 | 1.1354 | 0.0000 | 0.7621 |
| 12               | 0.7602 | 0.7532 | 1.2063 | 1.1067 | 0.0000 | 1.0150 | 0.7543 | 1.1246 | 0.0000 | 0.7572 |
| 13               | 0.7503 | 0.7467 | 1.1817 | 1.0828 | 0.0000 | 0.9766 | 0.7405 | 1.1046 | 0.0000 | 0.7406 |
| 14               | 0.7105 | 0.7023 | 1.1243 | 1.0617 | 0.0000 | 0.9490 | 0.7099 | 1.0355 | 0.0000 | 0.7158 |
| 15               | 0.7560 | 0.7434 | 1.1866 | 1.1096 | 0.0000 | 0.9889 | 0.7375 | 1.1062 | 0.0000 | 0.7572 |
| 16               | 0.7688 | 0.7582 | 1.1997 | 1.1124 | 0.0000 | 1.0012 | 0.7405 | 1.1123 | 0.0000 | 0.7737 |
| 17               | 0.7645 | 0.7631 | 1.1997 | 1.1082 | 0.0000 | 1.0012 | 0.7405 | 1.1123 | 0.0000 | 0.7737 |
| 18               | 0.7503 | 0.7483 | 1.1817 | 1.0828 | 0.0000 | 0.9812 | 0.7252 | 1.1016 | 0.0000 | 0.7489 |
| 19               | 0.7034 | 0.6973 | 1.1160 | 1.0617 | 0.0000 | 0.9429 | 0.7022 | 1.0278 | 0.0000 | 0.7156 |
| 20               | 0.7560 | 0.7483 | 1.1899 | 1.1110 | 0.0000 | 0.9996 | 0.9015 | 1.1046 | 0.0000 | 0.7555 |
| 21               | 0.7702 | 0.7631 | 1.2080 | 1.1250 | 0.0000 | 1.0165 | 0.7620 | 1.1246 | 0.0000 | 0.7687 |
| 22               | 0.7673 | 0.7648 | 1.2244 | 1.1292 | 0.0000 | 1.0073 | 0.7605 | 1.1400 | 0.0000 | 0.7704 |
| 23               | 0.7503 | 0.7450 | 1.2178 | 1.1222 | 0.0000 | 0.9920 | 0.7375 | 1.1415 | 0.0000 | 0.7450 |
| 24               | 0.6892 | 0.6809 | 1.1325 | 1.0969 | 0.0000 | 0.9506 | 0.6838 | 1.0585 | 0.0000 | 0.7043 |
| 25               | 0.7347 | 0.7204 | 1.2342 | 1.1785 | 0.0000 | 1.0134 | 0.7068 | 1.1845 | 0.0000 | 0.7241 |
| 26               | 0.6934 | 0.6858 | 1.2145 | 1.1672 | 0.0000 | 0.9843 | 0.6639 | 1.1830 | 0.0000 | 0.6828 |
| 27               | 0.5897 | 0.5838 | 1.0799 | 1.0196 | 0.0000 | 0.8509 | 0.5565 | 1.0739 | 0.0000 | 0.5836 |
| 28               | 0.4192 | 0.4194 | 0.8124 | 0.7242 | 0.0000 | 0.5979 | 0.3864 | 0.8050 | 0.0000 | 0.4100 |
| 29               | 0.2984 | 0.2714 | 0.5039 | 0.4852 | 0.0000 | 0.3756 | 0.2422 | 0.4978 | 0.0000 | 0.2529 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 0.6954 | 0.6776 | 1.1347 | 1.0723 | 1.0000 | 0.9340 | 0.6806 | 1.0826 | 1.0000 | 0.6933 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.107  | 1.129  | 1.098  | 1.130  | 0.000  | 1.092  | 1.325  | 1.118  | 0.000  | 1.115  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.770  | 0.765  | 1.246  | 1.212  | 0.000  | 1.020  | 0.902  | 1.211  | 0.000  | 0.774  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 0.53   | -1.05  | 0.18   | 1.18   | 1.00   | 0.42   | -0.31  | 1.22   | 1.00   | 0.45   |

Diagram 2.4-5

## Incore Power Distributions

6120 MWD/MTU (7/25/75)

|                  | 11 L 9 | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.5684 | 0.3763 | 0.5853 | 0.5820 | 0.5755 | 0.5583 | 0.4912 | 0.3718 | 0.5773 | 0.6119 |
| 2                | 0.8911 | 0.6136 | 0.8067 | 0.7807 | 0.9165 | 0.8166 | 0.7789 | 0.5499 | 0.8898 | 0.9024 |
| 3                | 1.0501 | 0.7526 | 0.9460 | 0.9511 | 1.0586 | 0.9704 | 0.9108 | 0.6661 | 1.0438 | 1.0335 |
| 4                | 1.1369 | 0.8884 | 1.0936 | 1.1072 | 1.1908 | 1.1396 | 1.0792 | 0.7978 | 1.1670 | 1.1550 |
| 5                | 1.2199 | 0.9817 | 1.1772 | 1.1995 | 1.2377 | 1.1934 | 1.1648 | 0.8799 | 1.2101 | 1.1943 |
| 6                | 1.2199 | 1.0226 | 1.1920 | 1.2208 | 1.2420 | 1.2088 | 1.2055 | 0.9093 | 1.2178 | 1.1999 |
| 7                | 1.2045 | 1.0341 | 1.1756 | 1.2236 | 1.2221 | 1.1934 | 1.2083 | 0.9140 | 1.2131 | 1.1901 |
| 8                | 1.1523 | 1.0046 | 1.1182 | 1.1569 | 1.1439 | 1.1319 | 1.1578 | 0.8768 | 1.1516 | 1.1339 |
| 9                | 1.1523 | 1.0013 | 1.1215 | 1.1498 | 1.1354 | 1.1319 | 1.1816 | 0.8877 | 1.1362 | 1.1227 |
| 10               | 1.1907 | 1.0341 | 1.1477 | 1.1725 | 1.1411 | 1.1642 | 1.1999 | 0.9171 | 1.1454 | 1.1367 |
| 11               | 1.1953 | 1.0406 | 1.1559 | 1.1711 | 1.1411 | 1.1704 | 1.2083 | 0.9217 | 1.1439 | 1.1409 |
| 12               | 1.1799 | 1.0422 | 1.1428 | 1.1711 | 1.1297 | 1.1581 | 1.2083 | 0.9155 | 1.1300 | 1.1357 |
| 13               | 1.1476 | 1.0210 | 1.1133 | 1.1612 | 1.1070 | 1.1165 | 1.1929 | 0.8923 | 1.1054 | 1.1129 |
| 14               | 1.0754 | 0.9735 | 1.0772 | 1.1356 | 1.0657 | 1.0550 | 1.1802 | 0.8675 | 1.0638 | 1.0708 |
| 15               | 1.1261 | 1.0324 | 1.1428 | 1.2066 | 1.1254 | 1.1058 | 1.2392 | 0.9140 | 1.1285 | 1.1171 |
| 16               | 1.1292 | 1.0390 | 1.1592 | 1.2336 | 1.1354 | 1.1212 | 1.2476 | 0.9295 | 1.1362 | 1.1213 |
| 17               | 1.1292 | 1.0390 | 1.1592 | 1.2350 | 1.1226 | 1.1288 | 1.2392 | 0.9372 | 1.1300 | 1.1213 |
| 18               | 1.1185 | 1.0275 | 1.1346 | 1.2066 | 1.0942 | 1.1165 | 1.2181 | 0.9202 | 1.1115 | 1.1031 |
| 19               | 1.0601 | 0.9735 | 1.0772 | 1.1285 | 1.0373 | 1.0550 | 1.1788 | 0.8784 | 1.0515 | 1.0427 |
| 20               | 1.1369 | 1.0357 | 1.1542 | 1.1711 | 1.1070 | 1.1135 | 1.2616 | 0.9248 | 1.1115 | 1.1059 |
| 21               | 1.1599 | 1.0537 | 1.1690 | 1.1938 | 1.1254 | 1.1319 | 1.2785 | 0.9431 | 1.1254 | 1.1199 |
| 22               | 1.1645 | 1.0537 | 1.1706 | 1.2080 | 1.1382 | 1.1550 | 1.2701 | 0.9512 | 1.1362 | 1.1311 |
| 23               | 1.1630 | 1.0292 | 1.1592 | 1.1995 | 1.1368 | 1.1519 | 1.2350 | 0.9217 | 1.1392 | 1.1353 |
| 24               | 1.0754 | 0.9408 | 1.0936 | 1.1427 | 1.0800 | 1.0812 | 1.1816 | 0.8675 | 1.0746 | 1.0778 |
| 25               | 1.1907 | 1.0062 | 1.1838 | 1.2208 | 1.1794 | 1.1794 | 1.2111 | 0.8935 | 1.1916 | 1.1831 |
| 26               | 1.1876 | 0.9572 | 1.1559 | 1.1654 | 1.1723 | 1.1673 | 1.1508 | 0.8443 | 1.1916 | 1.1750 |
| 27               | 1.0785 | 0.8181 | 1.0116 | 1.0079 | 1.0586 | 1.0396 | 0.9824 | 0.7126 | 1.0669 | 1.0638 |
| 28               | 0.8066 | 0.5890 | 0.7493 | 0.7169 | 0.7673 | 0.7551 | 0.7438 | 0.4880 | 0.7852 | 0.7971 |
| 29               | 0.4839 | 0.4009 | 0.4673 | 0.4386 | 0.4902 | 0.4752 | 0.4350 | 0.2866 | 0.4742 | 0.4884 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.1035 | 0.9426 | 1.0826 | 1.1124 | 1.0909 | 1.0808 | 1.1278 | 0.8379 | 1.0901 | 1.0850 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.105  | 1.118  | 1.101  | 1.110  | 1.139  | 1.118  | 1.134  | 1.135  | 1.117  | 1.106  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.220  | 1.034  | 1.192  | 1.235  | 1.242  | 1.209  | 1.278  | 0.951  | 1.218  | 1.200  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.93   | -0.02  | -0.17  | -0.01  | 2.3    | 1.0    | -1.6   | -0.7   | 1.0    | ...    |

Diagram 2.4-5

## Incore Power Distributions

6120 MWD/MTU (7/25/75)

|    | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.6368 | 0.0000 | 0.0000 | 0.5373 | 0.0000 | 0.5742 | 0.0000 | 0.6175 | 0.5984 | 0.2731 |
| 2  | 0.8666 | 0.0000 | 0.0000 | 0.8818 | 0.0000 | 0.7773 | 0.0000 | 0.9192 | 0.7673 | 0.4454 |
| 3  | 0.9897 | 0.0000 | 0.0000 | 1.0264 | 0.0000 | 0.9453 | 0.0000 | 1.0385 | 0.9624 | 0.5504 |
| 4  | 1.1210 | 0.0000 | 0.0000 | 1.1601 | 0.0000 | 1.0714 | 0.0000 | 1.1648 | 1.1067 | 0.6372 |
| 5  | 1.1932 | 0.0000 | 0.0000 | 1.2028 | 0.0000 | 1.1764 | 0.0000 | 1.2111 | 1.1936 | 0.7030 |
| 6  | 1.1948 | 0.0000 | 0.0000 | 1.2000 | 0.0000 | 1.2030 | 0.0000 | 1.2059 | 1.2116 | 0.7297 |
| 7  | 1.1751 | 0.0000 | 0.0000 | 1.1987 | 0.0000 | 1.2016 | 0.0000 | 1.2055 | 1.2034 | 0.7311 |
| 8  | 1.1095 | 0.0000 | 0.0000 | 1.1435 | 0.0000 | 1.1484 | 0.0000 | 1.1367 | 1.1895 | 0.7142 |
| 9  | 1.0964 | 0.0000 | 0.0000 | 1.1243 | 0.0000 | 1.1414 | 0.0000 | 1.1438 | 1.1018 | 0.7142 |
| 10 | 1.1128 | 0.0000 | 0.0000 | 1.1435 | 0.0000 | 1.1778 | 0.0000 | 1.1550 | 1.1296 | 0.7325 |
| 11 | 1.1046 | 0.0000 | 0.0000 | 1.1463 | 0.0000 | 1.1890 | 0.0000 | 1.1480 | 1.1362 | 0.7339 |
| 12 | 1.1013 | 0.0000 | 0.0000 | 1.1504 | 0.0000 | 1.1988 | 0.0000 | 1.1367 | 1.1280 | 0.7311 |
| 13 | 1.0799 | 0.0000 | 0.0000 | 1.1215 | 0.0000 | 1.1764 | 0.0000 | 1.1087 | 1.1067 | 0.7213 |
| 14 | 1.0307 | 0.0000 | 0.0000 | 1.0719 | 0.0000 | 1.1092 | 0.0000 | 1.0886 | 1.0829 | 0.6950 |
| 15 | 1.0816 | 0.0000 | 0.0000 | 1.1187 | 0.0000 | 1.1736 | 0.0000 | 1.1255 | 1.1100 | 0.7381 |
| 16 | 1.0799 | 0.0000 | 0.0000 | 1.1270 | 0.0000 | 1.1904 | 0.0000 | 1.1367 | 1.1165 | 0.7507 |
| 17 | 1.0783 | 0.0000 | 0.0000 | 1.1367 | 0.0000 | 1.1904 | 0.0000 | 1.1311 | 1.1198 | 0.7549 |
| 18 | 1.0684 | 0.0000 | 0.0000 | 1.1298 | 0.0000 | 1.1736 | 0.0000 | 1.1129 | 1.1067 | 0.7325 |
| 19 | 1.0307 | 0.0000 | 0.0000 | 1.0747 | 0.0000 | 1.1204 | 0.0000 | 1.0736 | 1.0575 | 0.7002 |
| 20 | 1.1111 | 0.0000 | 0.0000 | 1.1325 | 0.0000 | 1.1764 | 0.0000 | 1.1339 | 1.1378 | 0.7409 |
| 21 | 1.1308 | 0.0000 | 0.0000 | 1.1546 | 0.0000 | 1.1834 | 0.0000 | 1.1550 | 1.1493 | 0.7563 |
| 22 | 1.1275 | 0.0000 | 0.0000 | 1.1683 | 0.0000 | 1.1946 | 0.0000 | 1.1662 | 1.1510 | 0.7577 |
| 23 | 1.1144 | 0.0000 | 0.0000 | 1.1615 | 0.0000 | 1.1918 | 0.0000 | 1.1578 | 1.1395 | 0.7409 |
| 24 | 1.0553 | 0.0000 | 0.0000 | 1.1091 | 0.0000 | 1.1274 | 0.0000 | 1.1157 | 1.0657 | 0.6862 |
| 25 | 1.1538 | 0.0000 | 0.0000 | 1.2207 | 0.0000 | 1.2030 | 0.0000 | 1.1957 | 1.1690 | 0.7142 |
| 26 | 1.1472 | 0.0000 | 0.0000 | 1.2124 | 0.0000 | 1.1526 | 0.0000 | 1.1929 | 1.1692 | 0.6722 |
| 27 | 1.0225 | 0.0000 | 0.0000 | 1.0884 | 0.0000 | 1.0084 | 0.0000 | 1.0666 | 1.0329 | 0.5672 |
| 28 | 0.7517 | 0.0000 | 0.0000 | 0.7922 | 0.0000 | 0.7283 | 0.0000 | 0.7648 | 0.7624 | 0.3921 |
| 29 | 0.4907 | 0.0000 | 0.0000 | 0.4974 | 0.0000 | 0.4482 | 0.0000 | 0.5052 | 0.5001 | 0.2521 |
|    | 1.0604 | 1.0000 | 1.0000 | 1.0970 | 1.0000 | 1.1015 | 1.0000 | 1.0980 | 1.0731 | 0.6717 |
|    | 1.127  | 0.000  | 0.000  | 1.113  | 0.000  | 1.092  | 0.000  | 1.103  | 1.129  | 1.128  |
|    | 1.195  | 0.000  | 0.000  | 1.221  | 0.000  | 1.203  | 0.000  | 1.211  | 1.212  | 0.758  |
|    | 1.27   | 1.00   | 1.00   | 0.27   | 1.00   | -0.20  | 1.00   | 1.00   | 0.34   | -0.61  |

Diagram 2.4-5

## Incore Power Distributions

6120 MWD/MTU (7/25/75)

|    | 31 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | 0.3608           | 0.6149 | 0.5147 | 0.2618 | 0.2981 | 0.3387 | 0.0000 | 0.5758 | 0.5788 | 0.6315 |
| 2  | 0.6175           | 0.8805 | 0.8230 | 0.4387 | 0.4824 | 0.5350 | 0.0000 | 0.8658 | 0.8218 | 0.8631 |
| 3  | 0.7632           | 0.9923 | 0.9879 | 0.5420 | 0.5884 | 0.6577 | 0.0000 | 0.9854 | 0.9553 | 1.0034 |
| 4  | 0.8922           | 1.1153 | 1.1435 | 0.6509 | 0.6791 | 0.7837 | 0.0000 | 1.1473 | 1.0887 | 1.1367 |
| 5  | 1.0615           | 1.1474 | 1.2159 | 0.7203 | 0.7405 | 0.8655 | 0.0000 | 1.2036 | 1.1492 | 1.1957 |
| 6  | 1.0102           | 1.1474 | 1.2360 | 0.7500 | 0.7605 | 0.9064 | 0.0000 | 1.2149 | 1.1660 | 1.2055 |
| 7  | 1.0060           | 1.1223 | 1.2360 | 0.7542 | 0.7605 | 0.9097 | 0.0000 | 1.1966 | 1.1660 | 1.1816 |
| 8  | 0.9727           | 1.0552 | 1.1851 | 0.7358 | 0.7390 | 0.8737 | 0.0000 | 1.1192 | 1.1239 | 1.1087 |
| 9  | 0.9783           | 1.0608 | 1.1851 | 0.7486 | 0.7405 | 0.8786 | 0.0000 | 1.1262 | 1.1239 | 1.0848 |
| 10 | 1.0060           | 1.0692 | 1.2144 | 0.7726 | 0.7651 | 0.9048 | 0.0000 | 1.1290 | 1.1421 | 1.0974 |
| 11 | 1.0130           | 1.0664 | 1.2206 | 0.7783 | 0.7697 | 0.9097 | 0.0000 | 1.1262 | 1.1477 | 1.1003 |
| 12 | 1.0130           | 1.0622 | 1.2190 | 0.7740 | 0.7666 | 0.9081 | 0.0000 | 1.1177 | 1.1449 | 1.1031 |
| 13 | 1.0005           | 1.0356 | 1.1897 | 0.7528 | 0.7467 | 0.8950 | 0.0000 | 1.0980 | 1.1239 | 1.0806 |
| 14 | 0.9686           | 1.0161 | 1.1889 | 0.7288 | 0.7129 | 0.8704 | 0.0000 | 1.0769 | 1.0817 | 1.0455 |
| 15 | 1.0199           | 1.0352 | 1.1974 | 0.7571 | 0.7359 | 0.9326 | 0.0000 | 1.1192 | 1.1281 | 1.0946 |
| 16 | 1.0407           | 1.0650 | 1.2206 | 0.7571 | 0.7436 | 0.9359 | 0.0000 | 1.1220 | 1.1407 | 1.0946 |
| 17 | 1.0407           | 1.0636 | 1.2236 | 0.7486 | 0.7436 | 0.9293 | 0.0000 | 1.1107 | 1.1435 | 1.0932 |
| 18 | 1.0199           | 1.0342 | 1.2082 | 0.7344 | 0.7421 | 0.9113 | 0.0000 | 1.0840 | 1.1239 | 1.0750 |
| 19 | 0.9713           | 1.0063 | 1.1389 | 0.7146 | 0.7129 | 0.8786 | 0.0000 | 1.0558 | 1.0817 | 1.0273 |
| 20 | 1.0476           | 1.0412 | 1.1928 | 0.7627 | 0.7513 | 0.9310 | 0.0000 | 1.0980 | 1.1590 | 1.0792 |
| 21 | 1.0671           | 1.0496 | 1.2082 | 0.7797 | 0.7559 | 0.9555 | 0.0000 | 1.1121 | 1.1801 | 1.0918 |
| 22 | 1.0657           | 1.0622 | 1.2159 | 0.7797 | 0.7559 | 0.9539 | 0.0000 | 1.1234 | 1.1815 | 1.1017 |
| 23 | 1.0338           | 1.0692 | 1.2159 | 0.7542 | 0.7421 | 0.9277 | 0.0000 | 1.1192 | 1.1590 | 1.1059 |
| 24 | 0.9713           | 1.0482 | 1.1389 | 0.7075 | 0.6975 | 0.8590 | 0.0000 | 1.1121 | 1.1028 | 1.0656 |
| 25 | 1.0102           | 1.1321 | 1.2745 | 0.7387 | 0.7344 | 0.8950 | 0.0000 | 1.1684 | 1.1829 | 1.1508 |
| 26 | 0.9505           | 1.1321 | 1.2653 | 0.6722 | 0.7006 | 0.8443 | 0.0000 | 1.1403 | 1.1618 | 1.1297 |
| 27 | 0.8187           | 0.9993 | 1.1081 | 0.5618 | 0.6053 | 0.7150 | 0.0000 | 1.0065 | 1.0115 | 1.0034 |
| 28 | 0.5828           | 0.7128 | 0.7998 | 0.3849 | 0.4286 | 0.5023 | 0.0000 | 0.7179 | 0.7094 | 0.7298 |
| 29 | 0.4024           | 0.4780 | 0.4685 | 0.2547 | 0.2827 | 0.2978 | 0.0000 | 0.4857 | 0.4467 | 0.4743 |
|    | THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |
|    | 0.9402           | 1.0281 | 1.1391 | 0.6878 | 0.6926 | 0.8353 | 1.0000 | 1.0724 | 1.0791 | 1.0572 |
|    | AXIAL PEAK       |        |        |        |        |        |        |        |        |        |
|    | 1.135            | 1.116  | 1.119  | 1.134  | 1.111  | 1.144  | 0.000  | 1.133  | 1.096  | 1.145  |
|    | AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |
|    | 1.057            | 1.147  | 1.275  | 0.780  | 0.770  | 0.956  | 0.000  | 1.215  | 1.183  | 1.205  |
|    | AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |
|    | -1.29            | 1.47   | -0.60  | 0.28   | 0.75   | -1.37  | 1.00   | 1.60   | -0.12  | 1.81   |

Diagram 2.4-5

## Incore Power Distributions

6120 MWD/MTU (7/25/75)

|                  | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 F 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.5500 | 0.0000 | 0.4847 | 0.4972 | 0.4809 | 0.0000 | 0.5718 | 0.5794 | 0.0000 | 0.5736 |
| 2                | 0.8731 | 0.0000 | 0.7098 | 0.7720 | 0.7664 | 0.0000 | 0.9089 | 0.8924 | 0.0000 | 0.9043 |
| 3                | 1.0106 | 0.0000 | 0.9069 | 0.9562 | 0.9141 | 0.0000 | 1.0283 | 1.0440 | 0.0000 | 1.0427 |
| 4                | 1.1412 | 0.0000 | 1.0548 | 1.1120 | 1.0758 | 0.0000 | 1.1646 | 1.1474 | 0.0000 | 1.1704 |
| 5                | 1.1894 | 0.0000 | 1.1435 | 1.1899 | 1.1503 | 0.0000 | 1.2082 | 1.1942 | 0.0000 | 1.2073 |
| 6                | 1.1962 | 0.0000 | 1.1632 | 1.2112 | 1.1714 | 0.0000 | 1.2166 | 1.2069 | 0.0000 | 1.2155 |
| 7                | 1.1962 | 0.0000 | 1.1632 | 1.2027 | 1.1672 | 0.0000 | 1.2110 | 1.2041 | 0.0000 | 1.2155 |
| 8                | 1.1412 | 0.0000 | 1.1238 | 1.1474 | 1.0941 | 0.0000 | 1.1477 | 1.1545 | 0.0000 | 1.1611 |
| 9                | 1.1564 | 0.0000 | 1.0958 | 1.1417 | 1.1011 | 0.0000 | 1.1618 | 1.1403 | 0.0000 | 1.1658 |
| 10               | 1.1764 | 0.0000 | 1.1336 | 1.1757 | 1.1222 | 0.0000 | 1.1772 | 1.1630 | 0.0000 | 1.1904 |
| 11               | 1.1797 | 0.0000 | 1.1320 | 1.1757 | 1.1292 | 0.0000 | 1.1772 | 1.1687 | 0.0000 | 1.1904 |
| 12               | 1.1797 | 0.0000 | 1.1271 | 1.1616 | 1.1264 | 0.0000 | 1.1730 | 1.1616 | 0.0000 | 1.1781 |
| 13               | 1.1550 | 0.0000 | 1.1123 | 1.1332 | 1.0969 | 0.0000 | 1.1407 | 1.1403 | 0.0000 | 1.1581 |
| 14               | 1.1206 | 0.0000 | 1.0301 | 1.0837 | 1.0617 | 0.0000 | 1.1070 | 1.0837 | 0.0000 | 1.1058 |
| 15               | 1.1239 | 0.0000 | 1.1238 | 1.1460 | 1.1096 | 0.0000 | 1.1604 | 1.1531 | 0.0000 | 1.1627 |
| 16               | 1.1949 | 0.0000 | 1.1451 | 1.1630 | 1.1110 | 0.0000 | 1.1744 | 1.1616 | 0.0000 | 1.1642 |
| 17               | 1.1976 | 0.0000 | 1.1533 | 1.1630 | 1.1082 | 0.0000 | 1.1730 | 1.1616 | 0.0000 | 1.1658 |
| 18               | 1.1756 | 0.0000 | 1.1369 | 1.1361 | 1.0941 | 0.0000 | 1.1477 | 1.1403 | 0.0000 | 1.1534 |
| 19               | 1.1247 | 0.0000 | 1.0268 | 1.0766 | 1.0547 | 0.0000 | 1.1056 | 1.0766 | 0.0000 | 1.0955 |
| 20               | 1.1962 | 0.0000 | 1.1106 | 1.1290 | 1.1110 | 0.0000 | 1.1716 | 1.1488 | 0.0000 | 1.1534 |
| 21               | 1.2196 | 0.0000 | 1.1188 | 1.1545 | 1.1292 | 0.0000 | 1.1871 | 1.1743 | 0.0000 | 1.1658 |
| 22               | 1.2265 | 0.0000 | 1.1320 | 1.1729 | 1.0674 | 0.0000 | 1.1913 | 1.1857 | 0.0000 | 1.1811 |
| 23               | 1.2169 | 0.0000 | 1.1418 | 1.1616 | 1.0561 | 0.0000 | 1.1857 | 1.1842 | 0.0000 | 1.1888 |
| 24               | 1.1550 | 0.0000 | 1.0301 | 1.0907 | 1.0688 | 0.0000 | 1.1337 | 1.1120 | 0.0000 | 1.1273 |
| 25               | 1.2347 | 0.0000 | 1.1550 | 1.1743 | 1.1391 | 0.0000 | 1.2039 | 1.2154 | 0.0000 | 1.2288 |
| 26               | 1.2086 | 0.0000 | 1.1501 | 1.1474 | 1.1278 | 0.0000 | 1.1758 | 1.2041 | 0.0000 | 1.2150 |
| 27               | 1.0725 | 0.0000 | 1.0466 | 1.0058 | 0.9942 | 0.0000 | 1.0494 | 1.0766 | 0.0000 | 1.0812 |
| 28               | 0.7837 | 0.0000 | 0.7590 | 0.7224 | 0.7172 | 0.0000 | 0.7614 | 0.7791 | 0.0000 | 0.7890 |
| 29               | 0.4881 | 0.0000 | 0.4715 | 0.4462 | 0.4374 | 0.0000 | 0.5015 | 0.4845 | 0.0000 | 0.4844 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.1224 | 1.0000 | 1.0573 | 1.0849 | 1.0473 | 1.0000 | 1.1136 | 1.1074 | 1.0000 | 1.1183 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.100  | 0.000  | 1.100  | 1.116  | 1.119  | 0.000  | 1.093  | 1.094  | 0.000  | 1.099  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 1.235  | 0.000  | 1.163  | 1.211  | 1.171  | 0.000  | 1.217  | 1.215  | 0.000  | 1.229  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | -0.82  | 1.00   | -0.69  | 0.63   | 0.75   | 1.00   | 0.63   | 0.41   | 1.00   | 0.78   |

Diagram 2.4-6

In-Core Power Distributions, Cycle 2  
8690 MWD/MTU (10/21/75)

|                  | 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.2640 | 0.0000 | 0.5764 | 0.5928 | 0.6309 | 0.4064 | 0.2336 | 0.5994 | 0.5102 | 0.0000 |
| 2                | 0.4601 | 0.0000 | 0.9464 | 0.9223 | 0.9975 | 0.6556 | 0.4155 | 0.9816 | 0.8493 | 0.0000 |
| 3                | 0.5786 | 0.0000 | 1.0939 | 1.1407 | 1.1657 | 0.7974 | 0.5342 | 1.1776 | 1.0174 | 0.0000 |
| 4                | 0.7028 | 0.0000 | 1.2732 | 1.3026 | 1.2329 | 0.9143 | 0.6587 | 1.3332 | 1.1765 | 0.0000 |
| 5                | 0.7844 | 0.0000 | 1.3412 | 1.3669 | 1.3129 | 1.0044 | 0.7429 | 1.3697 | 1.2455 | 0.0000 |
| 6                | 0.8271 | 0.0000 | 1.3571 | 1.3572 | 1.3039 | 1.0313 | 0.7850 | 1.3447 | 1.2635 | 0.0000 |
| 7                | 0.8290 | 0.0000 | 1.3412 | 1.3260 | 1.2679 | 1.0313 | 0.7908 | 1.2948 | 1.2635 | 0.0000 |
| 8                | 0.8252 | 0.0000 | 1.2505 | 1.2402 | 1.1958 | 0.9872 | 0.7640 | 1.2025 | 1.2185 | 0.0000 |
| 9                | 0.7902 | 0.0000 | 1.2436 | 1.1778 | 1.1447 | 0.9775 | 0.7640 | 1.1603 | 1.2065 | 0.0000 |
| 10               | 0.8019 | 0.0000 | 1.2391 | 1.1778 | 1.1297 | 0.9948 | 0.7774 | 1.1392 | 1.2155 | 0.0000 |
| 11               | 0.7960 | 0.0000 | 1.2187 | 1.1505 | 1.1116 | 0.9872 | 0.7755 | 1.1027 | 1.2095 | 0.0000 |
| 12               | 0.7563 | 0.0000 | 1.1960 | 1.1173 | 1.0816 | 0.9699 | 0.7640 | 1.0719 | 1.1945 | 0.0000 |
| 13               | 0.7591 | 0.0000 | 1.1529 | 1.0803 | 1.0485 | 0.9297 | 0.7372 | 1.0297 | 1.1585 | 0.0000 |
| 14               | 0.7145 | 0.0000 | 1.0871 | 1.0179 | 0.9685 | 0.8760 | 0.7065 | 0.9778 | 1.1074 | 0.0000 |
| 15               | 0.7397 | 0.0000 | 1.1279 | 1.0374 | 1.0095 | 0.9047 | 0.7257 | 0.9970 | 1.1434 | 0.0000 |
| 16               | 0.7436 | 0.0000 | 1.1256 | 1.0276 | 1.0035 | 0.9047 | 0.7295 | 0.9855 | 1.1464 | 0.0000 |
| 17               | 0.7397 | 0.0000 | 1.1098 | 1.0159 | 0.9915 | 0.8971 | 0.7257 | 0.9701 | 1.1434 | 0.0000 |
| 18               | 0.7184 | 0.0000 | 1.0848 | 0.9984 | 0.9704 | 0.8760 | 0.7065 | 0.9509 | 1.1224 | 0.0000 |
| 19               | 0.6776 | 0.0000 | 1.0507 | 0.9613 | 0.9194 | 0.8262 | 0.6855 | 0.9144 | 1.0654 | 0.0000 |
| 20               | 0.7048 | 0.0000 | 1.0846 | 0.9418 | 0.9704 | 0.8722 | 0.7199 | 0.9471 | 1.1074 | 0.0000 |
| 21               | 0.7087 | 0.0000 | 1.0939 | 0.9457 | 0.9734 | 0.8798 | 0.7314 | 0.9528 | 1.1164 | 0.0000 |
| 22               | 0.6970 | 0.0000 | 1.0984 | 0.9457 | 0.9824 | 0.8683 | 0.7199 | 0.9567 | 1.1134 | 0.0000 |
| 23               | 0.6776 | 0.0000 | 1.0757 | 0.9984 | 0.9824 | 0.8434 | 0.6778 | 0.9567 | 1.0954 | 0.0000 |
| 24               | 0.6135 | 0.0000 | 1.0281 | 0.9555 | 0.9314 | 0.7763 | 0.6089 | 0.9259 | 1.0234 | 0.0000 |
| 25               | 0.6194 | 0.0000 | 1.0576 | 1.0120 | 0.9945 | 0.8166 | 0.6031 | 0.9778 | 1.0564 | 0.0000 |
| 26               | 0.5630 | 0.0000 | 1.0031 | 0.9906 | 0.9704 | 0.7643 | 0.5380 | 0.9528 | 0.9934 | 0.0000 |
| 27               | 0.4524 | 0.0000 | 0.8533 | 0.8541 | 0.8533 | 0.6479 | 0.4327 | 0.8376 | 0.5582 | 0.0000 |
| 28               | 0.2990 | 0.0000 | 0.5901 | 0.5986 | 0.6460 | 0.4485 | 0.2872 | 0.6013 | 0.6122 | 0.0000 |
| 29               | 0.1670 | 0.0000 | 0.3518 | 0.3393 | 0.3665 | 0.3393 | 0.1666 | 0.3439 | 0.3391 | 0.0000 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 0.6723 | 1.0000 | 1.0924 | 1.0402 | 1.0260 | 0.8521 | 0.6539 | 1.0208 | 1.0656 | 1.0000 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 1.233  | 0.000  | 1.242  | 1.314  | 1.280  | 1.210  | 1.209  | 1.342  | 1.186  | 0.000  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.829  | 0.000  | 1.357  | 1.367  | 1.313  | 1.031  | 0.791  | 1.370  | 1.263  | 0.000  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 7.91   | 1.00   | 8.49   | 11.19  | 10.35  | 7.42   | 5.91   | 11.84  | 6.94   | 1.00   |

In-Core Power Distributions, Cycle 2  
8690 MWD/MTU (10/21/75)

Sheet 2 of 5 sheets

Diagram 2.4-6

## In-Core Power Distributions, Cycle 2

8690 MWD/MTU (10/21/75)

|                  | 21 F11 | 22 N 5 | 23 J10 | 24 J 5 | 25 R 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.0000 | 0.7046 | 0.0000 | 0.0000 | 0.5312 | 0.0000 | 0.6666 | 0.5640 | 0.2437 |
| 2                | 0.0000 | 0.0000 | 1.0057 | 0.0000 | 0.0000 | 0.7948 | 0.0000 | 1.0354 | 0.9052 | 0.4343 |
| 3                | 0.0000 | 0.0000 | 1.1502 | 0.0000 | 0.0000 | 0.9994 | 0.0000 | 1.2333 | 1.0303 | 0.5483 |
| 4                | 0.0000 | 0.0000 | 1.2706 | 0.0000 | 0.0000 | 1.1686 | 0.0000 | 1.3774 | 1.2668 | 0.6701 |
| 5                | 0.0000 | 0.0000 | 1.3037 | 0.0000 | 0.0000 | 1.2984 | 0.0000 | 1.4235 | 1.3350 | 0.7527 |
| 6                | 0.0000 | 0.0000 | 1.3007 | 0.0000 | 0.0000 | 1.3280 | 0.0000 | 1.4023 | 1.3305 | 0.7920 |
| 7                | 0.0000 | 0.0000 | 1.2646 | 0.0000 | 0.0000 | 1.3260 | 0.0000 | 1.3639 | 1.2918 | 0.7959 |
| 8                | 0.0000 | 0.0000 | 1.1713 | 0.0000 | 0.0000 | 1.2729 | 0.0000 | 1.2659 | 1.1395 | 0.7684 |
| 9                | 0.0000 | 0.0000 | 1.1261 | 0.0000 | 0.0000 | 1.2552 | 0.0000 | 1.2141 | 1.1736 | 0.7763 |
| 10               | 0.0000 | 0.0000 | 1.1050 | 0.0000 | 0.0000 | 1.2630 | 0.0000 | 1.1872 | 1.1599 | 0.7841 |
| 11               | 0.0000 | 0.0000 | 1.0870 | 0.0000 | 0.0000 | 1.2552 | 0.0000 | 1.1449 | 1.1395 | 0.7841 |
| 12               | 0.0000 | 0.0000 | 1.0659 | 0.0000 | 0.0000 | 1.2355 | 0.0000 | 1.1046 | 1.1167 | 0.7704 |
| 13               | 0.0000 | 0.0000 | 1.0358 | 0.0000 | 0.0000 | 1.1981 | 0.0000 | 1.0546 | 1.0644 | 0.7428 |
| 14               | 0.0000 | 0.0000 | 0.9876 | 0.0000 | 0.0000 | 1.1509 | 0.0000 | 0.9989 | 1.0576 | 0.7232 |
| 15               | 0.0000 | 0.0000 | 1.0057 | 0.0000 | 0.0000 | 1.1922 | 0.0000 | 1.0181 | 1.0621 | 0.7487 |
| 16               | 0.0000 | 0.0000 | 0.9966 | 0.0000 | 0.0000 | 1.1961 | 0.0000 | 1.0066 | 1.0462 | 0.7586 |
| 17               | 0.0000 | 0.0000 | 0.9766 | 0.0000 | 0.0000 | 1.1843 | 0.0000 | 0.9912 | 1.0417 | 0.7546 |
| 18               | 0.0000 | 0.0000 | 0.9605 | 0.0000 | 0.0000 | 1.1548 | 0.0000 | 0.9682 | 1.0166 | 0.7252 |
| 19               | 0.0000 | 0.0000 | 0.9214 | 0.0000 | 0.0000 | 1.1096 | 0.0000 | 0.9221 | 1.0166 | 0.6976 |
| 20               | 0.0000 | 0.0000 | 0.9454 | 0.0000 | 0.0000 | 1.1489 | 0.0000 | 0.9643 | 1.0394 | 0.7271 |
| 21               | 0.0000 | 0.0000 | 0.9495 | 0.0000 | 0.0000 | 1.1450 | 0.0000 | 0.9797 | 1.0326 | 0.7370 |
| 22               | 0.0000 | 0.0000 | 0.9515 | 0.0000 | 0.0000 | 1.1450 | 0.0000 | 0.9836 | 1.0230 | 0.7212 |
| 23               | 0.0000 | 0.0000 | 0.9575 | 0.0000 | 0.0000 | 1.1233 | 0.0000 | 0.9778 | 1.0053 | 0.6859 |
| 24               | 0.0000 | 0.0000 | 0.9454 | 0.0000 | 0.0000 | 1.0486 | 0.0000 | 0.9259 | 0.9939 | 0.6249 |
| 25               | 0.0000 | 0.0000 | 0.9936 | 0.0000 | 0.0000 | 1.0565 | 0.0000 | 0.9855 | 1.0098 | 0.6151 |
| 26               | 0.0000 | 0.0000 | 0.9605 | 0.0000 | 0.0000 | 0.9758 | 0.0000 | 0.9663 | 0.9552 | 0.5483 |
| 27               | 0.0000 | 0.0000 | 0.8461 | 0.0000 | 0.0000 | 0.8282 | 0.0000 | 0.8452 | 0.7938 | 0.4382 |
| 28               | 0.0000 | 0.0000 | 0.6082 | 0.0000 | 0.0000 | 0.3856 | 0.0000 | 0.5994 | 0.5231 | 0.2928 |
| 29               | 0.0000 | 0.0000 | 0.3673 | 0.0000 | 0.0000 | 0.3148 | 0.0000 | 0.3458 | 0.2297 | 0.1651 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.0000 | 1.0154 | 1.0000 | 1.0000 | 1.0951 | 1.0000 | 1.0516 | 1.0347 | 0.6651 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 1.284  | 0.000  | 0.000  | 1.213  | 0.000  | 1.354  | 1.290  | 1.197  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 1.304  | 0.000  | 0.000  | 1.328  | 0.000  | 1.423  | 1.335  | 0.795  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | 1.00   | 10.66  | 1.00   | 1.00   | 7.02   | 1.00   | 13.08  | 9.24   | 5.65   |

Diagram 2.4-6

In-Core Power Distributions, Cycle 2

8690 MWD/MTU (10/21/75)

|                  | 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.2697 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6349 |
| 2                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4667 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9602 |
| 3                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5815 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1317 |
| 4                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7039 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3052 |
| 5                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7861 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3703 |
| 6                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8167 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3663 |
| 7                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8148 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.3210 |
| 8                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7785 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2056 |
| 9                | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7765 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1751 |
| 10               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7804 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1495 |
| 11               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7727 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1297 |
| 12               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7574 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1041 |
| 13               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7345 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0666 |
| 14               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0351 |
| 15               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7192 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0450 |
| 16               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7249 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0351 |
| 17               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7249 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0174 |
| 18               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7077 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9976 |
| 19               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6752 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9651 |
| 20               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6962 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9917 |
| 21               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6924 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9996 |
| 22               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6828 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0016 |
| 23               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6637 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9957 |
| 24               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6178 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9720 |
| 25               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6293 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0016 |
| 26               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5738 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9483 |
| 27               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4590 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8202 |
| 28               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3022 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5836 |
| 29               | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1683 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3431 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.6628 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0423 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 0.000  | 0.000  | 1.232  | 0.000  | 0.000  | 0.000  | 0.000  | 1.315  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 0.000  | 0.000  | 0.000  | 0.817  | 0.000  | 0.000  | 0.000  | 0.000  | 1.370  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | 1.00   | 1.00   | 1.00   | 7.38   | 1.00   | 1.00   | 1.00   | 1.00   | 10.75  |

Diagram 2.4-6

## In-Core Power Distributions, Cycle 2

8690 MWD/MTU (10/21/75)

|                  | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.0000 | 0.4407 | 0.0000 | 0.4656 | 0.4451 | 0.5045 | 0.5666 | 0.5701 | 0.6429 | 0.5693 |
| 2                | 0.0000 | 0.7914 | 0.0000 | 0.7395 | 0.7299 | 0.8368 | 0.9522 | 0.9106 | 1.0035 | 0.9316 |
| 3                | 0.0000 | 1.0043 | 0.0000 | 0.9645 | 0.9435 | 0.9757 | 1.1371 | 1.1110 | 1.1086 | 1.1290 |
| 4                | 0.0000 | 1.1872 | 0.0000 | 1.1425 | 1.1315 | 1.1660 | 1.2945 | 1.2414 | 1.2739 | 1.2747 |
| 5                | 0.0000 | 1.3131 | 0.0000 | 1.2443 | 1.2304 | 1.2295 | 1.3496 | 1.3075 | 1.3099 | 1.3350 |
| 6                | 0.0000 | 1.3760 | 0.0000 | 1.2853 | 1.2640 | 1.2536 | 1.3516 | 1.3192 | 1.3129 | 1.3437 |
| 7                | 0.0000 | 1.3880 | 0.0000 | 1.2834 | 1.2561 | 1.2476 | 1.3319 | 1.3056 | 1.2859 | 1.3254 |
| 8                | 0.0000 | 1.3700 | 0.0000 | 1.2462 | 1.1967 | 1.1751 | 1.2689 | 1.2531 | 1.1958 | 1.2536 |
| 9                | 0.0000 | 1.3611 | 0.0000 | 1.1895 | 1.1671 | 1.1842 | 1.2453 | 1.1927 | 1.1928 | 1.2210 |
| 10               | 0.0000 | 1.3940 | 0.0000 | 1.2110 | 1.1710 | 1.1842 | 1.2355 | 1.2005 | 1.1837 | 1.2153 |
| 11               | 0.0000 | 1.3970 | 0.0000 | 1.2012 | 1.1611 | 1.1721 | 1.2079 | 1.1830 | 1.1687 | 1.1904 |
| 12               | 0.0000 | 1.3850 | 0.0000 | 1.1797 | 1.1394 | 1.1570 | 1.1765 | 1.1597 | 1.1507 | 1.1616 |
| 13               | 0.0000 | 1.3521 | 0.0000 | 1.1464 | 1.0978 | 1.1207 | 1.1352 | 1.1266 | 1.1056 | 1.1175 |
| 14               | 0.0000 | 1.2801 | 0.0000 | 1.0584 | 1.0464 | 1.0845 | 1.0860 | 1.0468 | 1.0756 | 1.0638 |
| 15               | 0.0000 | 1.3311 | 0.0000 | 1.1093 | 1.0800 | 1.0966 | 1.1194 | 1.0916 | 1.0936 | 1.0888 |
| 16               | 0.0000 | 1.3371 | 0.0000 | 1.1132 | 1.0701 | 1.0966 | 1.1214 | 1.0935 | 1.0936 | 1.0773 |
| 17               | 0.0000 | 1.3251 | 0.0000 | 1.1093 | 1.0543 | 1.0905 | 1.1037 | 1.0818 | 1.0876 | 1.0658 |
| 18               | 0.0000 | 1.3041 | 0.0000 | 1.0838 | 1.0306 | 1.0694 | 1.0781 | 1.0604 | 1.0666 | 1.0428 |
| 19               | 0.0000 | 1.2411 | 0.0000 | 0.9997 | 0.9851 | 1.0422 | 1.0230 | 0.9884 | 1.0335 | 0.9910 |
| 20               | 0.0000 | 1.3011 | 0.0000 | 1.0427 | 1.0227 | 1.0573 | 1.0722 | 1.0410 | 1.0626 | 1.0293 |
| 21               | 0.0000 | 1.3101 | 0.0000 | 1.0545 | 1.0266 | 1.0633 | 1.0781 | 1.0546 | 1.0666 | 1.0332 |
| 22               | 0.0000 | 1.3041 | 0.0000 | 1.0584 | 1.0227 | 1.0603 | 1.0761 | 1.0565 | 1.0696 | 1.0389 |
| 23               | 0.0000 | 1.2651 | 0.0000 | 1.0427 | 0.9851 | 1.0392 | 1.0565 | 1.0527 | 1.0576 | 1.0293 |
| 24               | 0.0000 | 1.1272 | 0.0000 | 0.9391 | 0.9594 | 0.9939 | 0.9994 | 0.9690 | 1.0335 | 0.9651 |
| 25               | 0.0000 | 1.1722 | 0.0000 | 0.9919 | 0.9633 | 1.0090 | 1.0368 | 1.0332 | 1.0606 | 1.0313 |
| 26               | 0.0000 | 1.0912 | 0.0000 | 0.9430 | 0.9060 | 0.9516 | 0.9837 | 1.0040 | 1.0215 | 0.9459 |
| 27               | 0.0000 | 0.9174 | 0.0000 | 0.7962 | 0.7596 | 0.8035 | 0.8571 | 0.8522 | 0.8803 | 0.8530 |
| 28               | 0.0000 | 0.6416 | 0.0000 | 0.3658 | 0.5380 | 0.5407 | 0.6059 | 0.6187 | 0.6099 | 0.6115 |
| 29               | 0.0000 | 0.4197 | 0.0000 | 0.3111 | 0.2097 | 0.3081 | 0.3482 | 0.3444 | 0.3876 | 0.3374 |
| THIMBLE AVERAGE  |        |        |        |        |        |        |        |        |        |        |
|                  | 1.0000 | 1.2035 | 1.0000 | 1.0332 | 1.0095 | 1.0395 | 1.0800 | 1.0647 | 1.0757 | 1.0651 |
| AXIAL PEAK       |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.161  | 0.000  | 1.244  | 1.252  | 1.206  | 1.251  | 1.239  | 1.220  | 1.262  |
| AVERAGE * PEAK   |        |        |        |        |        |        |        |        |        |        |
|                  | 0.000  | 1.397  | 0.000  | 1.285  | 1.264  | 1.254  | 1.352  | 1.319  | 1.313  | 1.344  |
| AXIAL OFFSET (%) |        |        |        |        |        |        |        |        |        |        |
|                  | 1.00   | 3.78   | 1.00   | 8.40   | 8.24   | 7.10   | 9.89   | 8.60   | 7.81   | 9.94   |

REACTOR: Turkey Point 3

CYCLE: 2

EXPOSURE 0 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART C - PWR HOT-ZERO-POWER DATA

Sheet 1 of 2

Rev. 0 Date: 4/29/76

| ITEM (Unit)                                     | VALUE                   | SOURCE                                | COMMENTS |
|-------------------------------------------------|-------------------------|---------------------------------------|----------|
| <u>PWR HZP DATA</u>                             |                         |                                       |          |
| 1. Moderator temperature ( $^{\circ}$ F)        | 542                     | FP&L Cycle II Physics Characteristics | none     |
| 2. Soluble poison concentration (ppm)           | See table below.        | Idem                                  | none     |
| 3. Control rod configuration                    | Idem                    | Idem                                  | none     |
| 4. Method of measurement                        | reactivity computer     | Idem                                  | none     |
| 5. Type of measurement (rod worth or ppm worth) | ppm worth and rod worth | Idem                                  | none     |
| 6. Incore traces (if available)                 | not available           | Idem                                  | none     |
| 7. System Pressure (psia)                       | 2235                    | Idem                                  | none     |

Verified By: AY Date: 5/24/76

REACTOR: Turkey Point 3

CYCLE: 2

EXPOSURE 0 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART C - PWR HOT-ZERO-POWER DATA

Sheet 2 of 2

Rev. 0 Date: 4/29/76

| ITEM (Unit)      | VALUE             | SOURCE | COMMENTS |
|------------------|-------------------|--------|----------|
| 8. Measured data | See table below * | Idem   | none     |
|                  |                   |        |          |

Critical Borons

All rods out

All rods in

Measured PPM

1265

655

Rod Worths

Bank D

Bank C

Bank B

Bank A

Measured pcm

668

1334

810

1262

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1.

Verified By: AFZ

Date: 5/20/76

REACTOR: Turkey Point 3

CYCLE: 2

Exposure: 2972 MWD/MTU

TABLE 2.4 PWR OPERATING DATA  
PART D - PWR TRANSIENT DATA

Sheet 1 of 2

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE        | SOURCE             | COMMENTS                                                |
|---------------------------------------------------|--------------|--------------------|---------------------------------------------------------|
| 1. Core Power (Mwt)                               | 2189.        | NCCO<br>log sheets | 99.5%                                                   |
| 2. Inlet Temperature (°F)                         | 539          | Idem               | Tavg = 566°F, ΔT = 54                                   |
| 3. Soluble poison                                 | 590          | Idem               | none                                                    |
| 4. System pressure                                | 1900         | Idem               | nominal                                                 |
| 5. Total Core Flow                                | 101.5        | Idem               | nominal 100%                                            |
| 6. Control Rod position                           | see diagram  | Idem               | Diagram 2.4-7 attached.                                 |
| 7. Inter-calibrated data<br>from Incore Traverses | See attached | FP&L records       | Diagram 2.4-8                                           |
| 8. Xenon condition                                | equilibrium  | inferred           | at 99% power greater than<br>72 hrs. prior to transient |
|                                                   |              |                    |                                                         |
|                                                   |              |                    |                                                         |

Verified by: MTT Date: 5/10/77

Diagram 2.4-7

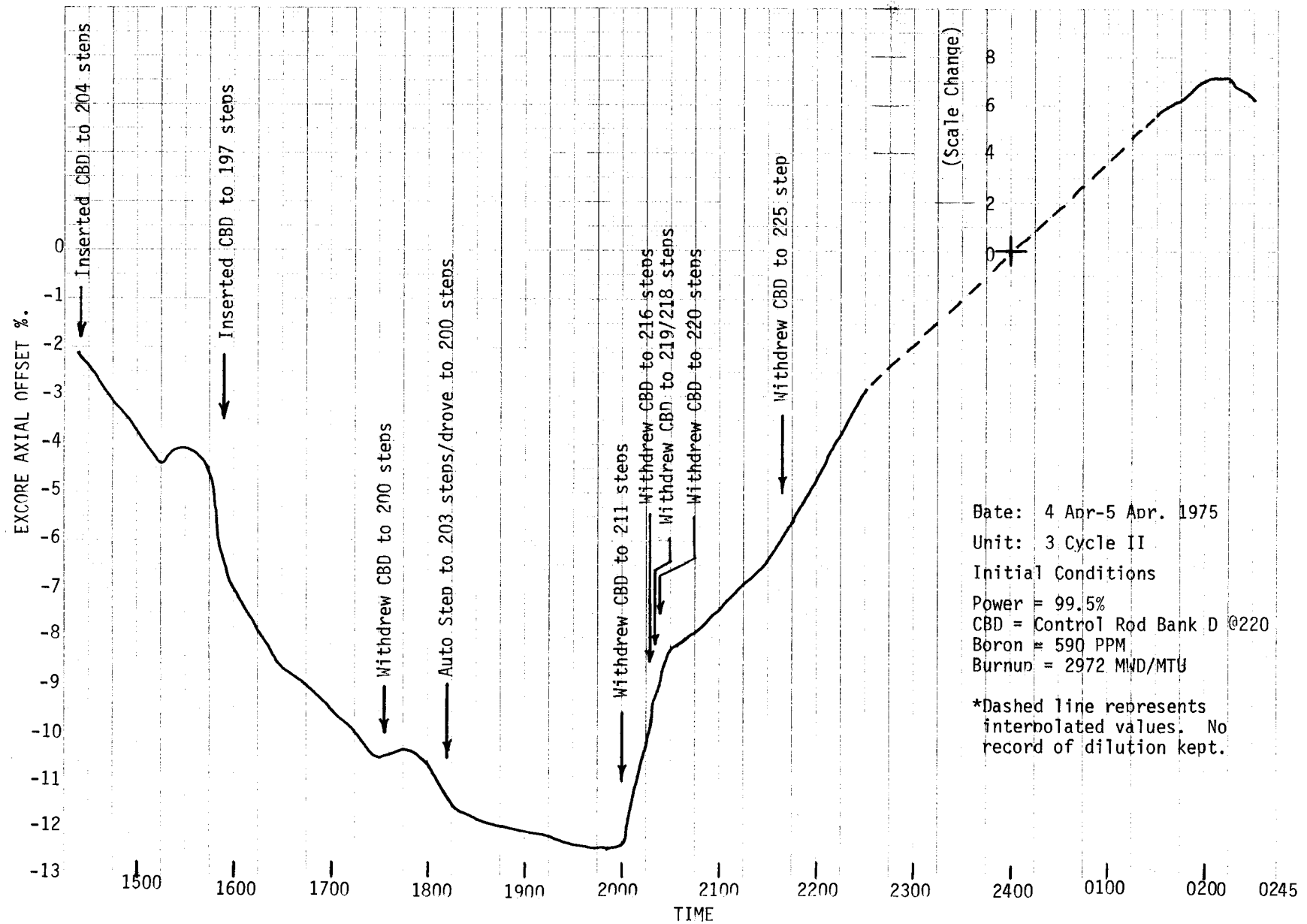


Diagram 2.4-8  
Incore Power Distributions, Cycle 2  
April 5, 1975 TIME=0230

| 1 M 3  | 2 J15  | 3 F 4  | 4 L 8                     | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 0.2726 | 0.0000 | 0.5126 | 0.5421                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.4547 | 0.0000 | 0.8600 | 0.7590                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.5640 | 0.0000 | 0.9956 | 0.9299                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6657 | 0.0000 | 1.1505 | 1.0926                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7360 | 0.0000 | 1.2125 | 1.1760                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7775 | 0.0000 | 1.2435 | 1.1801                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7800 | 0.0000 | 1.2448 | 1.1801                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7612 | 0.0000 | 1.1686 | 1.1426                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7549 | 0.0000 | 1.1712 | 1.0884                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7699 | 0.0000 | 1.1828 | 1.1009                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7699 | 0.0000 | 1.1828 | 1.0967                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7649 | 0.0000 | 1.1699 | 1.0884                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7423 | 0.0000 | 1.1299 | 1.0592                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7046 | 0.0000 | 1.0873 | 0.9883                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7298 | 0.0000 | 1.1118 | 1.0175                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7348 | 0.0000 | 1.1092 | 1.0175                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7298 | 0.0000 | 1.0963 | 1.0092                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7084 | 0.0000 | 1.0666 | 0.9925                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6732 | 0.0000 | 1.0214 | 0.9258                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6946 | 0.0000 | 1.0601 | 0.9675                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.7021 | 0.0000 | 1.0653 | 0.9716                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6946 | 0.0000 | 1.0666 | 0.9716                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6707 | 0.0000 | 1.0472 | 0.9675                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6155 | 0.0000 | 0.9917 | 0.9007                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6293 | 0.0000 | 1.0408 | 0.9716                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.5815 | 0.0000 | 1.0020 | 0.9675                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.4785 | 0.0000 | 0.8664 | 0.8549                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.3215 | 0.0000 | 0.6276 | 0.6005                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.1959 | 0.0000 | 0.3822 | 0.3836                    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 0.6587 | 1.0000 | 1.0507 | THIMBLE AVERAGE<br>0.9815 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 1.184  | 0.000  | 1.185  | AXIAL PEAK<br>1.202       | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 0.780  | 0.000  | 1.245  | AVERAGE * PEAK<br>1.180   | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

# Diagram 2.4-8

## Incore Power Distributions, Cycle 2

April 5, 1975 TIME=0230

| 11     | L 9    | 12     | B10    | 13     | L 4    | 14              | F13    | 15     | F 6    | 16     | J12    | 17     | B 7    | 18     | + 1    | 19     | G 9    | 20     | G 7 |
|--------|--------|--------|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5237          | 0.5539 | 0.5539 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5726 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7699          | 0.9119 | 0.9119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8686 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9136          | 1.0375 | 1.0375 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0173 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0948          | 1.1970 | 1.1970 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1645 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2073          | 1.2309 | 1.2309 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2125 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2243          | 1.2309 | 1.2309 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2157 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2193          | 1.2008 | 1.2008 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1997 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1635          | 1.1229 | 1.1229 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1309 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1798          | 1.1241 | 1.1241 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1213 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1798          | 1.1166 | 1.1166 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1309 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1760          | 1.1028 | 1.1028 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1149 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1635          | 1.0752 | 1.0752 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0973 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1298          | 1.0312 | 1.0312 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0557 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1260          | 1.0249 | 1.0249 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0077 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1760          | 1.0450 | 1.0450 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0381 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1748          | 1.0312 | 1.0312 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0365 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1535          | 1.0061 | 1.0061 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0189 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1073          | 0.9722 | 0.9722 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9885 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0636          | 0.9508 | 0.9508 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9325 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0886          | 0.9822 | 0.9822 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9709 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0886          | 0.9835 | 0.9835 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9757 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0761          | 0.9835 | 0.9835 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9757 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0448          | 0.9609 | 0.9609 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9709 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0136          | 0.9433 | 0.9433 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9277 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0273          | 0.9935 | 0.9935 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9885 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9611          | 0.9558 | 0.9558 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9709 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8136          | 0.8528 | 0.8528 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8526 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5611          | 0.6041 | 0.6041 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5998 |     |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3212          | 0.3894 | 0.3894 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3807 |     |
| 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | THIMBLE AVERAGE | 1.0051 | 1.0051 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0022 |     |
| 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | AXIAL PEAK      | 1.170  | 1.225  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 1.213  |     |
| 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | AVERAGE * PEAK  | 1.225  | 1.231  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 1.216  |     |

Diagram 2.4-8

Incore Power Distributions, Cycle 2

April 5, 1975 TIME=0230

| 21 F11 | 22 N 5 | 23 J10 | 24 J 5                    | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 0.5862 | 0.0030 | 0.0000 | 0.5099                    | 0.0000 | 0.5289 | 0.0000 | 0.5853 | 0.5113 | 0.0000 |
| 0.8716 | 0.0030 | 0.0000 | 0.8698                    | 0.0000 | 0.7581 | 0.0000 | 0.8554 | 0.7360 | 0.0030 |
| 0.9685 | 0.0030 | 0.0000 | 1.0048                    | 0.0000 | 0.9328 | 0.0000 | 1.0186 | 0.9258 | 0.0000 |
| 1.1389 | 0.0030 | 0.0000 | 1.1885                    | 0.0000 | 1.0867 | 0.0000 | 1.1405 | 1.0911 | 0.0000 |
| 1.1983 | 0.0030 | 0.0000 | 1.2260                    | 0.0000 | 1.2069 | 0.0000 | 1.1970 | 1.1815 | 0.0000 |
| 1.2022 | 0.0030 | 0.0000 | 1.2248                    | 0.0000 | 1.2389 | 0.0000 | 1.2070 | 1.2138 | 0.0000 |
| 1.1815 | 0.0030 | 0.0000 | 1.2123                    | 0.0000 | 1.2453 | 0.0000 | 1.2070 | 1.2061 | 0.0000 |
| 1.0873 | 0.0030 | 0.0000 | 1.1448                    | 0.0000 | 1.2069 | 0.0000 | 1.1568 | 1.1428 | 0.0000 |
| 1.1053 | 0.0030 | 0.0000 | 1.1510                    | 0.0000 | 1.1892 | 0.0000 | 1.1091 | 1.1040 | 0.0000 |
| 1.0989 | 0.0030 | 0.0000 | 1.1410                    | 0.0000 | 1.2133 | 0.0000 | 1.1292 | 1.1170 | 0.0000 |
| 1.0795 | 0.0030 | 0.0000 | 1.1348                    | 0.0000 | 1.2149 | 0.0000 | 1.1166 | 1.1157 | 0.0000 |
| 1.0666 | 0.0030 | 0.0000 | 1.1198                    | 0.0000 | 1.2101 | 0.0000 | 1.0927 | 1.1002 | 0.0000 |
| 1.0330 | 0.0030 | 0.0030 | 1.0686                    | 0.0000 | 1.1780 | 0.0000 | 1.0576 | 1.0692 | 0.0000 |
| 1.0007 | 0.0030 | 0.0000 | 1.0448                    | 0.0000 | 1.1027 | 0.0000 | 0.9872 | 1.0072 | 0.0000 |
| 1.0227 | 0.0030 | 0.0000 | 1.0523                    | 0.0000 | 1.1524 | 0.0000 | 1.0287 | 1.0317 | 0.0000 |
| 1.0346 | 0.0030 | 0.0000 | 1.0436                    | 0.0000 | 1.1556 | 0.0000 | 1.0287 | 1.0356 | 0.0000 |
| 0.9904 | 0.0030 | 0.0000 | 1.0386                    | 0.0000 | 1.1444 | 0.0000 | 1.0186 | 1.0279 | 0.0000 |
| 0.9710 | 0.0030 | 0.0000 | 1.0086                    | 0.0000 | 1.1187 | 0.0000 | 0.9998 | 1.0072 | 0.0000 |
| 0.9555 | 0.0030 | 0.0000 | 0.9823                    | 0.0000 | 1.0546 | 0.0000 | 0.9295 | 0.9555 | 0.0000 |
| 0.9891 | 0.0030 | 0.0000 | 1.0073                    | 0.0000 | 1.1027 | 0.0000 | 0.9810 | 1.0059 | 0.0000 |
| 0.9930 | 0.0030 | 0.0000 | 1.0073                    | 0.0000 | 1.0963 | 0.0000 | 0.9935 | 1.0098 | 0.0000 |
| 0.9814 | 0.0030 | 0.0000 | 1.0011                    | 0.0000 | 1.0915 | 0.0000 | 0.9998 | 1.0007 | 0.0000 |
| 0.9620 | 0.0030 | 0.0000 | 0.9761                    | 0.0000 | 1.0754 | 0.0000 | 0.9948 | 0.9840 | 0.0000 |
| 0.9362 | 0.0030 | 0.0000 | 0.9448                    | 0.0000 | 1.0033 | 0.0000 | 0.9307 | 0.9104 | 0.0000 |
| 0.9801 | 0.0030 | 0.0000 | 1.0173                    | 0.0000 | 1.0498 | 0.0000 | 0.9960 | 0.9878 | 0.0000 |
| 0.9555 | 0.0030 | 0.0000 | 0.9798                    | 0.0000 | 0.9905 | 0.0000 | 0.9998 | 0.9633 | 0.0000 |
| 0.8213 | 0.0030 | 0.0000 | 0.8636                    | 0.0000 | 0.8463 | 0.0000 | 0.8930 | 0.8445 | 0.0000 |
| 0.5882 | 0.0030 | 0.0000 | 0.6136                    | 0.0000 | 0.5898 | 0.0000 | 0.6418 | 0.6134 | 0.0000 |
| 0.3783 | 0.0030 | 0.0000 | 0.3887                    | 0.0000 | 0.3574 | 0.0000 | 0.3969 | 0.3809 | 0.0000 |
| 0.9873 | 1.0030 | 1.0000 | THIMBLE AVERAGE<br>1.0185 | 1.0000 | 1.0606 | 1.0000 | 1.0372 | 0.9941 | 1.0000 |
| 1.218  | 0.003  | 0.000  | AXIAL PEAK<br>1.204       | 0.000  | 1.174  | 0.000  | 1.198  | 1.221  | 0.000  |
| 1.202  | 0.003  | 0.000  | AVERAGE * PEAK<br>1.226   | 0.000  | 1.245  | 0.000  | 1.237  | 1.214  | 0.000  |

Diagram 2.4-8

Incore Power Distributions, Cycle 2

April 5, 1975 TIME=0230

| 31     | F 2    | 32     | F 9    | 33     | N 7    | 34     | A 9    | 35     | N12    | 36     | R 8    | 37     | H 4    | 38     | H11    | 39     | D 5    | 40     | L 6    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5311 | 0.5562 | 0.5311 | 0.5562 | 0.6028 | 0.6028 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7790 | 0.8102 | 0.7790 | 0.8102 | 0.8359 | 0.8359 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9693 | 0.9549 | 0.9693 | 0.9549 | 1.0112 | 1.0112 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1277 | 1.1028 | 1.1277 | 1.1028 | 1.1398 | 1.1398 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2109 | 1.1687 | 1.2109 | 1.1687 | 1.2137 | 1.2137 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2365 | 1.1960 | 1.2365 | 1.1960 | 1.2266 | 1.2266 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.2237 | 1.1960 | 1.2237 | 1.1960 | 1.2025 | 1.2025 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1597 | 1.1430 | 1.1597 | 1.1430 | 1.1333 | 1.1333 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1245 | 1.1398 | 1.1245 | 1.1398 | 1.0964 | 1.0964 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1325 | 1.1526 | 1.1325 | 1.1526 | 1.1012 | 1.1012 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1197 | 1.1510 | 1.1197 | 1.1510 | 1.0915 | 1.0915 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.1305 | 1.1414 | 1.1305 | 1.1414 | 1.0787 | 1.0787 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0765 | 1.1092 | 1.0765 | 1.1092 | 1.0513 | 1.0513 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0397 | 1.0626 | 1.0397 | 1.0626 | 0.9951 | 0.9951 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0669 | 1.0948 | 1.0669 | 1.0948 | 1.0353 | 1.0353 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0525 | 1.0964 | 1.0525 | 1.0964 | 1.0256 | 1.0256 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0349 | 1.0867 | 1.0349 | 1.0867 | 1.0096 | 1.0096 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0029 | 1.0578 | 1.0029 | 1.0578 | 0.9887 | 0.9887 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9405 | 1.0160 | 0.9405 | 1.0160 | 0.9372 | 0.9372 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9869 | 1.0706 | 0.9869 | 1.0706 | 0.9726 | 0.9726 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9869 | 1.0803 | 0.9869 | 1.0803 | 0.9742 | 0.9742 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9553 | 1.0706 | 0.9553 | 1.0706 | 0.9774 | 0.9774 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9341 | 1.0385 | 0.9341 | 1.0385 | 0.9742 | 0.9742 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9333 | 1.0385 | 0.9333 | 1.0385 | 0.9847 | 0.9847 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.9709 | 0.9983 | 0.9709 | 0.9983 | 0.9613 | 0.9613 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8590 | 0.8536 | 0.8590 | 0.8536 | 0.8440 | 0.8440 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6190 | 0.5964 | 0.6190 | 0.5964 | 0.6189 | 0.6189 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3939 | 0.3617 | 0.3939 | 0.3617 | 0.3794 | 0.3794 |
| 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0360 | 1.0307 | 1.0360 | 1.0307 | 0.9967 | 0.9967 |
| 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 1.229  | 1.160  | 1.229  | 1.160  | 1.231  | 1.231  |
| 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 1.236  | 1.196  | 1.236  | 1.196  | 1.227  | 1.227  |

Diagram 2.4-8

Incore Power Distributions, Cycle 2

April 5, 1975 TIME=0230

| 41 D10 | 42 G14 | 43 H13 | 44 C 8                    | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|--------|--------|--------|---------------------------|--------|--------|--------|--------|--------|--------|
| 0.5108 | 0.0000 | 0.0000 | 0.0000                    | 0.4259 | 0.0000 | 0.5273 | 0.5523 | 0.0000 | 0.0000 |
| 0.8080 | 0.0000 | 0.0000 | 0.0000                    | 0.6693 | 0.0000 | 0.8890 | 0.8703 | 0.0000 | 0.0000 |
| 0.9839 | 0.0000 | 0.0000 | 0.0000                    | 0.8582 | 0.0000 | 1.0401 | 1.0143 | 0.0000 | 0.0000 |
| 1.1262 | 0.0000 | 0.0000 | 0.0000                    | 1.0472 | 0.0000 | 1.1864 | 1.1383 | 0.0000 | 0.0000 |
| 1.2058 | 0.0000 | 0.0000 | 0.0000                    | 1.1464 | 0.0000 | 1.2346 | 1.1897 | 0.0000 | 0.0000 |
| 1.2183 | 0.0000 | 0.0000 | 0.0000                    | 1.1817 | 0.0000 | 1.2443 | 1.2109 | 0.0000 | 0.0000 |
| 1.2225 | 0.0000 | 0.0000 | 0.0000                    | 1.1833 | 0.0000 | 1.2394 | 1.2109 | 0.0000 | 0.0000 |
| 1.1932 | 0.0000 | 0.0000 | 0.0000                    | 1.1320 | 0.0000 | 1.1848 | 1.1583 | 0.0000 | 0.0000 |
| 1.1639 | 0.0000 | 0.0000 | 0.0000                    | 1.1192 | 0.0000 | 1.1648 | 1.1433 | 0.0000 | 0.0000 |
| 1.1807 | 0.0000 | 0.0000 | 0.0000                    | 1.1384 | 0.0000 | 1.1928 | 1.1634 | 0.0000 | 0.0000 |
| 1.1807 | 0.0000 | 0.0000 | 0.0000                    | 1.1384 | 0.0000 | 1.1992 | 1.1609 | 0.0000 | 0.0000 |
| 1.1765 | 0.0000 | 0.0000 | 0.0000                    | 1.1288 | 0.0000 | 1.1623 | 1.1433 | 0.0000 | 0.0000 |
| 1.1639 | 0.0000 | 0.0000 | 0.0000                    | 1.0920 | 0.0000 | 1.1221 | 1.1133 | 0.0000 | 0.0000 |
| 1.0634 | 0.0000 | 0.0000 | 0.0000                    | 1.0360 | 0.0000 | 1.0819 | 1.0544 | 0.0000 | 0.0000 |
| 1.1304 | 0.0000 | 0.0000 | 0.0000                    | 1.0728 | 0.0000 | 1.1205 | 1.0945 | 0.0000 | 0.0000 |
| 1.1304 | 0.0000 | 0.0000 | 0.0000                    | 1.0680 | 0.0000 | 1.1221 | 1.0970 | 0.0000 | 0.0000 |
| 1.1262 | 0.0000 | 0.0000 | 0.0000                    | 1.0520 | 0.0000 | 1.1060 | 1.0870 | 0.0000 | 0.0000 |
| 1.1011 | 0.0000 | 0.0000 | 0.0000                    | 1.0279 | 0.0000 | 1.0722 | 1.0532 | 0.0000 | 0.0000 |
| 1.0048 | 0.0000 | 0.0000 | 0.0000                    | 0.9639 | 0.0000 | 1.0096 | 0.9893 | 0.0000 | 0.0000 |
| 1.0592 | 0.0000 | 0.0000 | 0.0000                    | 1.0135 | 0.0000 | 1.0610 | 1.0331 | 0.0000 | 0.0000 |
| 1.0718 | 0.0000 | 0.0000 | 0.0000                    | 1.0199 | 0.0000 | 1.0690 | 1.0431 | 0.0000 | 0.0000 |
| 1.0676 | 0.0000 | 0.0000 | 0.0000                    | 1.0183 | 0.0000 | 1.0690 | 1.0469 | 0.0000 | 0.0000 |
| 1.0592 | 0.0000 | 0.0000 | 0.0000                    | 0.9943 | 0.0000 | 1.0449 | 1.0394 | 0.0000 | 0.0000 |
| 0.9671 | 0.0000 | 0.0000 | 0.0000                    | 0.9239 | 0.0000 | 0.9935 | 0.9830 | 0.0000 | 0.0000 |
| 1.0341 | 0.0000 | 0.0000 | 0.0000                    | 0.9815 | 0.0000 | 1.0401 | 1.0306 | 0.0000 | 0.0000 |
| 1.0132 | 0.0000 | 0.0000 | 0.0000                    | 0.9559 | 0.0000 | 1.0015 | 1.0143 | 0.0000 | 0.0000 |
| 0.8960 | 0.0000 | 0.0000 | 0.0000                    | 0.8246 | 0.0000 | 0.8777 | 0.8866 | 0.0000 | 0.0000 |
| 0.6322 | 0.0000 | 0.0000 | 0.0000                    | 0.5860 | 0.0000 | 0.6318 | 0.6324 | 0.0000 | 0.0000 |
| 0.3977 | 0.0000 | 0.0000 | 0.0000                    | 0.3475 | 0.0000 | 0.3971 | 0.3895 | 0.0000 | 0.0000 |
| 1.0512 | 1.0000 | 1.0000 | THIMBLE AVERAGE<br>1.0000 | 0.9914 | 1.0000 | 1.0587 | 1.0383 | 1.0000 | 1.0000 |
| 1.163  | 0.000  | 0.000  | AXIAL PEAK<br>0.000       | 1.193  | 0.000  | 1.175  | 1.156  | 0.000  | 0.000  |
| 1.223  | 0.000  | 0.000  | AVERAGE * PEAK<br>0.000   | 1.183  | 0.000  | 1.244  | 1.211  | 0.000  | 0.000  |

REACTOR: Turkey Point 3

CYCLE: 2

Exposure: 5200 MWD/MTU

TABLE 2.4 PWR OPERATING DATA  
PART D - PWR TRANSIENT DATA

Sheet 2 of 2

Rev. 1 Date: 4/5/77

| ITEM (Unit)                                       | VALUE        | SOURCE             | COMMENTS                                                |
|---------------------------------------------------|--------------|--------------------|---------------------------------------------------------|
| 1. Core Power                                     | 2189.        | NCCO<br>log sheets | 99.5%                                                   |
| 2. Inlet Temperature                              | 539          | Idem               | Tavg = 566 $\Delta T$ = 54                              |
| 3. Soluble poison                                 | 397          | Idem               |                                                         |
| 4. System Pressure                                | 1900         | Idem               | nominal                                                 |
| 5. Total Core Flow                                | 101.5        | Idem               | nominal 100%                                            |
| 6. Control Rod positions                          | see diagram  | Idem               | Diagram 2.4-9 attached.                                 |
| 7. Inter-calibrated data<br>from Incore Traverses | see attached | FP&L records       | Diagram 2.4-10                                          |
| 8. Xenon Condition                                | equilibrium  | inferred           | at 99% power greater than<br>72 hrs. prior to transient |
|                                                   |              |                    |                                                         |
|                                                   |              |                    |                                                         |
| Verified by: <u>RTT</u> Date: <u>5/10/77</u>      |              |                    |                                                         |

DIAGRAM 2.4-9

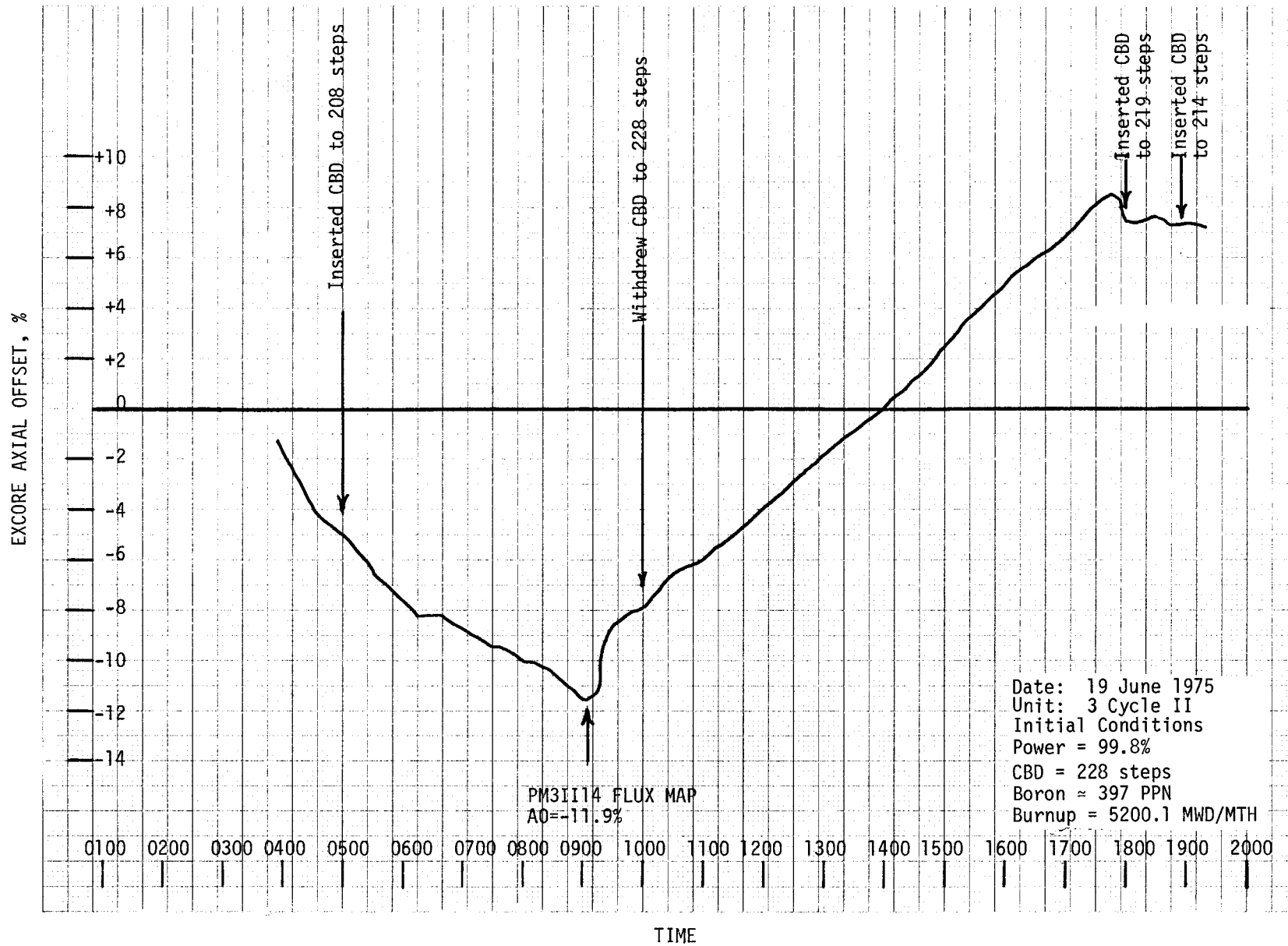


Diagram 2.4-10  
Incore Power Distributions, Cycle 2

June 19, 1975 TIME=0900

| 1 M 3           | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0000          | 0.0000 | 0.3988 | 0.3974 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.2216 |
| 0.0000          | 0.0000 | 0.6327 | 0.5658 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3568 |
| 0.0000          | 0.0000 | 0.7426 | 0.6955 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4322 |
| 0.0000          | 0.0000 | 0.8557 | 0.8302 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5108 |
| 0.0000          | 0.0000 | 0.9138 | 0.9009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5611 |
| 0.0000          | 0.0000 | 0.9515 | 0.9262 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5939 |
| 0.0000          | 0.0000 | 0.9672 | 0.9363 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5988 |
| 0.0000          | 0.0000 | 0.9358 | 0.9009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.5909 |
| 0.0000          | 0.0000 | 0.9530 | 0.9195 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6145 |
| 0.0000          | 0.0000 | 0.9939 | 0.9616 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6381 |
| 0.0000          | 0.0000 | 1.0221 | 0.9767 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6559 |
| 0.0000          | 0.0000 | 1.0441 | 0.9831 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6617 |
| 0.0000          | 0.0000 | 1.0441 | 0.9902 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6617 |
| 0.0000          | 0.0000 | 1.0158 | 0.9818 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6632 |
| 0.0000          | 0.0000 | 1.0943 | 1.0525 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7104 |
| 0.0000          | 0.0000 | 1.1336 | 1.0777 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7418 |
| 0.0000          | 0.0000 | 1.1524 | 1.0912 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7528 |
| 0.0000          | 0.0000 | 1.1571 | 1.0929 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7465 |
| 0.0000          | 0.0000 | 1.1085 | 1.0828 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7308 |
| 0.0000          | 0.0000 | 1.2105 | 1.1535 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7735 |
| 0.0000          | 0.0000 | 1.2498 | 1.1872 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8110 |
| 0.0000          | 0.0000 | 1.2843 | 1.2091 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8188 |
| 0.0000          | 0.0000 | 1.2969 | 1.2175 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.8110 |
| 0.0000          | 0.0000 | 1.2137 | 1.1939 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7528 |
| 0.0000          | 0.0000 | 1.3330 | 1.2899 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7958 |
| 0.0000          | 0.0000 | 1.3267 | 1.3017 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7575 |
| 0.0000          | 0.0000 | 1.1744 | 1.1502 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.6538 |
| 0.0000          | 0.0000 | 0.8682 | 0.8167 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.4636 |
| 0.0000          | 0.0000 | 0.5432 | 0.5439 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.3143 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 1.0000          | 1.0000 | 1.0410 | 0.9985 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.6476 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 0.000           | 0.000  | 1.281  | 1.304  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 1.266  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 0.000           | 0.000  | 1.333  | 1.302  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.817  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4-10

## Incore Power Distributions, Cycle 2

| June 19 1975 TIME=0900 |        |        |        |        |        |        |        |        |        |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11 I 9                 | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
| 0.0000                 | 0.0000 | 0.4679 | 0.0000 | 0.4117 | 0.0000 | 0.3509 | 0.0000 | 0.0000 | 0.4245 |
| 0.0000                 | 0.0000 | 0.5935 | 0.0000 | 0.6446 | 0.0000 | 0.5489 | 0.0000 | 0.0000 | 0.6297 |
| 0.0000                 | 0.0000 | 0.7191 | 0.0000 | 0.7711 | 0.0000 | 0.6862 | 0.0000 | 0.0000 | 0.7339 |
| 0.0000                 | 0.0000 | 0.8368 | 0.0000 | 0.8808 | 0.0000 | 0.8031 | 0.0000 | 0.0000 | 0.8535 |
| 0.0000                 | 0.0000 | 0.9044 | 0.0000 | 0.9483 | 0.0000 | 0.8967 | 0.0000 | 0.0000 | 0.9018 |
| 0.0000                 | 0.0000 | 0.9311 | 0.0000 | 0.9652 | 0.0000 | 0.9497 | 0.0000 | 0.0000 | 0.9251 |
| 0.0000                 | 0.0000 | 0.9358 | 0.0000 | 0.9652 | 0.0000 | 0.9684 | 0.0000 | 0.0000 | 0.9344 |
| 0.0000                 | 0.0000 | 0.9201 | 0.0000 | 0.9314 | 0.0000 | 0.9747 | 0.0000 | 0.0000 | 0.9049 |
| 0.0000                 | 0.0000 | 0.9311 | 0.0000 | 0.9483 | 0.0000 | 0.9825 | 0.0000 | 0.0000 | 0.9329 |
| 0.0000                 | 0.0000 | 0.9703 | 0.0000 | 0.9804 | 0.0000 | 1.0293 | 0.0000 | 0.0000 | 0.9671 |
| 0.0000                 | 0.0000 | 0.9939 | 0.0000 | 0.9989 | 0.0000 | 1.0604 | 0.0000 | 0.0000 | 0.9888 |
| 0.0000                 | 0.0000 | 1.0017 | 0.0000 | 1.0023 | 0.0000 | 1.0760 | 0.0000 | 0.0000 | 1.0059 |
| 0.0000                 | 0.0000 | 1.0017 | 0.0000 | 0.9905 | 0.0000 | 1.0885 | 0.0000 | 0.0000 | 1.0028 |
| 0.0000                 | 0.0000 | 0.9703 | 0.0000 | 0.9483 | 0.0000 | 1.0604 | 0.0000 | 0.0000 | 0.9842 |
| 0.0000                 | 0.0000 | 1.0645 | 0.0000 | 1.0748 | 0.0000 | 1.1727 | 0.0000 | 0.0000 | 1.0573 |
| 0.0000                 | 0.0000 | 1.1038 | 0.0000 | 1.1052 | 0.0000 | 1.2164 | 0.0000 | 0.0000 | 1.0884 |
| 0.0000                 | 0.0000 | 1.1273 | 0.0000 | 1.1085 | 0.0000 | 1.2398 | 0.0000 | 0.0000 | 1.1008 |
| 0.0000                 | 0.0000 | 1.1273 | 0.0000 | 1.1002 | 0.0000 | 1.2476 | 0.0000 | 0.0000 | 1.1039 |
| 0.0000                 | 0.0000 | 1.0724 | 0.0000 | 1.0158 | 0.0000 | 1.1852 | 0.0000 | 0.0000 | 1.0637 |
| 0.0000                 | 0.0000 | 1.1901 | 0.0000 | 1.1677 | 0.0000 | 1.3178 | 0.0000 | 0.0000 | 1.1459 |
| 0.0000                 | 0.0000 | 1.2215 | 0.0000 | 1.2098 | 0.0000 | 1.3723 | 0.0000 | 0.0000 | 1.1816 |
| 0.0000                 | 0.0000 | 1.2388 | 0.0000 | 1.2351 | 0.0000 | 1.3879 | 0.0000 | 0.0000 | 1.2127 |
| 0.0000                 | 0.0000 | 1.2435 | 0.0000 | 1.2351 | 0.0000 | 1.3817 | 0.0000 | 0.0000 | 1.2257 |
| 0.0000                 | 0.0000 | 1.1509 | 0.0000 | 1.1170 | 0.0000 | 1.2320 | 0.0000 | 0.0000 | 1.1739 |
| 0.0000                 | 0.0000 | 1.2953 | 0.0000 | 1.3111 | 0.0000 | 1.3801 | 0.0000 | 0.0000 | 1.2951 |
| 0.0000                 | 0.0000 | 1.2702 | 0.0000 | 1.2942 | 0.0000 | 1.3256 | 0.0000 | 0.0000 | 1.2920 |
| 0.0000                 | 0.0000 | 1.1352 | 0.0000 | 1.1930 | 0.0000 | 1.1696 | 0.0000 | 0.0000 | 1.1537 |
| 0.0000                 | 0.0000 | 0.8447 | 0.0000 | 0.9061 | 0.0000 | 0.8421 | 0.0000 | 0.0000 | 0.8365 |
| 0.0000                 | 0.0000 | 0.5150 | 0.0000 | 0.5602 | 0.0000 | 0.5770 | 0.0000 | 0.0000 | 0.5442 |
| THIMBLE AVERAGE        |        |        |        |        |        |        |        |        |        |
| 1.0000                 | 1.0000 | 1.0102 | 1.0000 | 1.0191 | 1.0000 | 1.0736 | 1.0000 | 1.0000 | 1.0056 |
| AXIAL PEAK             |        |        |        |        |        |        |        |        |        |
| 0.000                  | 0.000  | 1.282  | 0.000  | 1.287  | 0.000  | 1.293  | 0.000  | 0.000  | 1.287  |
| AVERAGE * PEAK         |        |        |        |        |        |        |        |        |        |
| 0.000                  | 0.000  | 1.295  | 0.000  | 1.311  | 0.000  | 1.388  | 0.000  | 0.000  | 1.295  |

Diagram 2.4-10

Incore Power Distributions, Cycle 2

June 19, 1975 TIME=0900

| 21 F11          | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.4356          | 0.0000 | 0.0000 | 0.3402 | 0.0000 | 0.4358 | 0.0000 | 0.4429 | 0.4004 | 0.0000 |
| 0.6205          | 0.0000 | 0.0000 | 0.6180 | 0.0000 | 0.5758 | 0.0000 | 0.6248 | 0.5291 | 0.0000 |
| 0.7302          | 0.0000 | 0.0000 | 0.7409 | 0.0000 | 0.7113 | 0.0000 | 0.7460 | 0.6767 | 0.0000 |
| 0.8242          | 0.0000 | 0.0000 | 0.8656 | 0.0000 | 0.8186 | 0.0000 | 0.8470 | 0.7976 | 0.0000 |
| 0.8947          | 0.0000 | 0.0000 | 0.9262 | 0.0000 | 0.9074 | 0.0000 | 0.9060 | 0.8887 | 0.0000 |
| 0.9151          | 0.0000 | 0.0000 | 0.9464 | 0.0000 | 0.9494 | 0.0000 | 0.9279 | 0.9248 | 0.0000 |
| 0.9166          | 0.0000 | 0.0000 | 0.9632 | 0.0000 | 0.9649 | 0.0000 | 0.9481 | 0.9373 | 0.0000 |
| 0.8869          | 0.0000 | 0.0000 | 0.9464 | 0.0000 | 0.9494 | 0.0000 | 0.9397 | 0.9122 | 0.0000 |
| 0.9025          | 0.0000 | 0.0000 | 0.9548 | 0.0000 | 0.9525 | 0.0000 | 0.9329 | 0.9044 | 0.0000 |
| 0.9292          | 0.0000 | 0.0000 | 0.9885 | 0.0000 | 1.0085 | 0.0000 | 0.9717 | 0.9389 | 0.0000 |
| 0.9464          | 0.0000 | 0.0000 | 1.0138 | 0.0000 | 1.0412 | 0.0000 | 0.9851 | 0.9703 | 0.0000 |
| 0.9637          | 0.0000 | 0.0000 | 1.0340 | 0.0000 | 1.0630 | 0.0000 | 0.9986 | 0.9813 | 0.0000 |
| 0.9637          | 0.0000 | 0.0000 | 1.0390 | 0.0000 | 1.0692 | 0.0000 | 1.0070 | 0.9844 | 0.0000 |
| 0.9339          | 0.0000 | 0.0000 | 1.0138 | 0.0000 | 1.0272 | 0.0000 | 0.9851 | 0.9389 | 0.0000 |
| 1.0122          | 0.0000 | 0.0000 | 1.0727 | 0.0000 | 1.1081 | 0.0000 | 1.0660 | 1.0268 | 0.0000 |
| 1.0279          | 0.0000 | 0.0000 | 1.0980 | 0.0000 | 1.1455 | 0.0000 | 1.0929 | 1.0535 | 0.0000 |
| 1.0436          | 0.0000 | 0.0000 | 1.1148 | 0.0000 | 1.1673 | 0.0000 | 1.1030 | 1.0602 | 0.0000 |
| 1.0561          | 0.0000 | 0.0000 | 1.1401 | 0.0000 | 1.1704 | 0.0000 | 1.1114 | 1.0896 | 0.0000 |
| 1.0357          | 0.0000 | 0.0000 | 1.1148 | 0.0000 | 1.1361 | 0.0000 | 1.0761 | 1.0425 | 0.0000 |
| 1.1376          | 0.0000 | 0.0000 | 1.1906 | 0.0000 | 1.2233 | 0.0000 | 1.1569 | 1.1587 | 0.0000 |
| 1.1768          | 0.0000 | 0.0000 | 1.2293 | 0.0000 | 1.2451 | 0.0000 | 1.2040 | 1.1948 | 0.0000 |
| 1.1846          | 0.0000 | 0.0000 | 1.2495 | 0.0000 | 1.2762 | 0.0000 | 1.2344 | 1.2090 | 0.0000 |
| 1.1862          | 0.0000 | 0.0000 | 1.2579 | 0.0000 | 1.2887 | 0.0000 | 1.2428 | 1.2215 | 0.0000 |
| 1.1141          | 0.0000 | 0.0000 | 1.2327 | 0.0000 | 1.2093 | 0.0000 | 1.1838 | 1.1116 | 0.0000 |
| 1.2473          | 0.0000 | 0.0000 | 1.3371 | 0.0000 | 1.3120 | 0.0000 | 1.2849 | 1.2702 | 0.0000 |
| 1.2551          | 0.0000 | 0.0000 | 1.3505 | 0.0000 | 1.2684 | 0.0000 | 1.3101 | 1.2702 | 0.0000 |
| 1.1297          | 0.0000 | 0.0000 | 1.1990 | 0.0000 | 1.1206 | 0.0000 | 1.1838 | 1.1430 | 0.0000 |
| 0.8320          | 0.0000 | 0.0000 | 0.8622 | 0.0000 | 0.8062 | 0.0000 | 0.8588 | 0.8588 | 0.0000 |
| 0.5265          | 0.0000 | 0.0000 | 0.5759 | 0.0000 | 0.4980 | 0.0000 | 0.5591 | 0.5542 | 0.0000 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.9767          | 1.0000 | 1.0000 | 1.0342 | 1.0000 | 1.0351 | 1.0000 | 1.0153 | 0.9854 | 1.0000 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.285           | 0.000  | 0.000  | 1.306  | 0.000  | 1.268  | 0.000  | 1.290  | 1.289  | 0.000  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.255           | 0.000  | 0.000  | 1.351  | 0.000  | 1.312  | 0.000  | 1.310  | 1.270  | 0.000  |

Diagram 2.4-10

## Incore Power Distributions, Cycle 2

June 19, 1975 TIME=0900

| 31 F 2 | 32 F 9 | 33 N 7 | 34 A 9          | 35 N 12 | 36 R 8 | 37 H 4 | 38 H 11 | 39 D 5 | 40 L 6 |
|--------|--------|--------|-----------------|---------|--------|--------|---------|--------|--------|
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.3856  | 0.4689 | 0.4689 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.5519  | 0.5858 | 0.6216 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.6965  | 0.7198 | 0.7509 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.8163  | 0.8117 | 0.8569 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.8940  | 0.8771 | 0.9207 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9329  | 0.9083 | 0.9410 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9406  | 0.9238 | 0.9457 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9204  | 0.9207 | 0.9129 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9173  | 0.9207 | 0.9083 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9515  | 0.9675 | 0.9347 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9764  | 0.9908 | 0.9581 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9826  | 1.0142 | 0.9753 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9920  | 1.0173 | 0.9815 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.9717  | 0.9675 | 0.9534 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.0541  | 1.0609 | 1.0313 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.0806  | 1.0952 | 1.0594 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.0884  | 1.1201 | 1.0750 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.0884  | 1.1233 | 1.0791 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.0339  | 1.0765 | 1.0438 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.1350  | 1.2011 | 1.1217 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.1676  | 1.2510 | 1.1529 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.1894  | 1.2759 | 1.1752 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.2050  | 1.2713 | 1.1955 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.1563  | 1.1466 | 1.1684 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.2780  | 1.3102 | 1.2635 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.2672  | 1.2977 | 1.2463 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 1.1350  | 1.1700 | 1.1092 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.8474  | 0.8740 | 0.8179 |
| 0.0000 | 0.0000 | 0.0000 | 0.0000          | 0.0000  | 0.0000 | 0.0000 | 0.5380  | 0.5281 | 0.5297 |
| 1.0000 | 1.0000 | 1.0000 | THIMBLE AVERAGE |         | 1.0000 | 1.0000 | 0.9905  | 1.0142 | 0.9893 |
| 0.000  | 0.000  | 0.000  | AXIAL PEAK      |         | 0.000  | 0.000  | 1.290   | 1.292  | 1.277  |
| 0.000  | 0.000  | 0.000  | AVERAGE * PEAK  |         | 0.000  | 0.000  | 1.278   | 1.310  | 1.263  |

Diagram 2.4-10

Incore Power Distributions, Cycle 2

June 19, 1975 TIME=0900

|        |        |        |                 |        |        |        |        |        |        |        |
|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| 41 D10 | 42 G14 | 43 H13 | 44 C 8          | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |        |
| 0.4202 | 0.0000 | 0.3306 | 0.0000          | 0.0000 | 0.0000 | 0.4051 | 0.4349 | 0.0000 | 0.0000 |        |
| 0.6463 | 0.0000 | 0.5108 | 0.0000          | 0.0000 | 0.0000 | 0.6465 | 0.6456 | 0.0000 | 0.0000 |        |
| 0.7728 | 0.0000 | 0.6440 | 0.0000          | 0.0000 | 0.0000 | 0.7821 | 0.7771 | 0.0000 | 0.0000 |        |
| 0.8842 | 0.0000 | 0.7850 | 0.0000          | 0.0000 | 0.0000 | 0.8802 | 0.8614 | 0.0000 | 0.0000 |        |
| 0.9432 | 0.0000 | 0.8555 | 0.0000          | 0.0000 | 0.0000 | 0.9347 | 0.9170 | 0.0000 | 0.0000 |        |
| 0.9702 | 0.0000 | 0.8900 | 0.0000          | 0.0000 | 0.0000 | 0.9581 | 0.9440 | 0.0000 | 0.0000 |        |
| 0.9837 | 0.0000 | 0.9025 | 0.0000          | 0.0000 | 0.0000 | 0.9737 | 0.9575 | 0.0000 | 0.0000 |        |
| 0.9753 | 0.0000 | 0.8869 | 0.0000          | 0.0000 | 0.0000 | 0.9659 | 0.9541 | 0.0000 | 0.0000 |        |
| 0.9871 | 0.0000 | 0.9104 | 0.0000          | 0.0000 | 0.0000 | 0.9659 | 0.9473 | 0.0000 | 0.0000 |        |
| 1.0327 | 0.0000 | 0.9417 | 0.0000          | 0.0000 | 0.0000 | 1.0049 | 0.9945 | 0.0000 | 0.0000 |        |
| 1.0546 | 0.0000 | 0.9652 | 0.0000          | 0.0000 | 0.0000 | 1.0282 | 1.0165 | 0.0000 | 0.0000 |        |
| 1.0698 | 0.0000 | 0.9809 | 0.0000          | 0.0000 | 0.0000 | 1.0360 | 1.0299 | 0.0000 | 0.0000 |        |
| 1.0715 | 0.0000 | 0.9809 | 0.0000          | 0.0000 | 0.0000 | 1.0438 | 1.0350 | 0.0000 | 0.0000 |        |
| 1.0664 | 0.0000 | 0.9652 | 0.0000          | 0.0000 | 0.0000 | 0.9971 | 1.0047 | 0.0000 | 0.0000 |        |
| 1.1373 | 0.0000 | 1.0436 | 0.0000          | 0.0000 | 0.0000 | 1.0983 | 1.0889 | 0.0000 | 0.0000 |        |
| 1.1761 | 0.0000 | 1.0827 | 0.0000          | 0.0000 | 0.0000 | 1.1388 | 1.1277 | 0.0000 | 0.0000 |        |
| 1.1930 | 0.0000 | 1.1141 | 0.0000          | 0.0000 | 0.0000 | 1.1560 | 1.1429 | 0.0000 | 0.0000 |        |
| 1.1963 | 0.0000 | 1.1094 | 0.0000          | 0.0000 | 0.0000 | 1.1606 | 1.1463 | 0.0000 | 0.0000 |        |
| 1.1677 | 0.0000 | 1.0592 | 0.0000          | 0.0000 | 0.0000 | 1.0983 | 1.1007 | 0.0000 | 0.0000 |        |
| 1.2470 | 0.0000 | 1.1297 | 0.0000          | 0.0000 | 0.0000 | 1.2152 | 1.1867 | 0.0000 | 0.0000 |        |
| 1.2908 | 0.0000 | 1.1533 | 0.0000          | 0.0000 | 0.0000 | 1.2588 | 1.2339 | 0.0000 | 0.0000 |        |
| 1.3111 | 0.0000 | 1.1924 | 0.0000          | 0.0000 | 0.0000 | 1.2853 | 1.2659 | 0.0000 | 0.0000 |        |
| 1.3178 | 0.0000 | 1.2081 | 0.0000          | 0.0000 | 0.0000 | 1.2931 | 1.2811 | 0.0000 | 0.0000 |        |
| 1.2723 | 0.0000 | 1.1533 | 0.0000          | 0.0000 | 0.0000 | 1.1840 | 1.2154 | 0.0000 | 0.0000 |        |
| 1.3533 | 0.0000 | 1.2504 | 0.0000          | 0.0000 | 0.0000 | 1.3320 | 1.3266 | 0.0000 | 0.0000 |        |
| 1.3398 | 0.0000 | 1.2473 | 0.0000          | 0.0000 | 0.0000 | 1.3242 | 1.3334 | 0.0000 | 0.0000 |        |
| 1.1761 | 0.0000 | 1.1062 | 0.0000          | 0.0000 | 0.0000 | 1.1996 | 1.1985 | 0.0000 | 0.0000 |        |
| 0.8386 | 0.0000 | 0.8085 | 0.0000          | 0.0000 | 0.0000 | 0.9114 | 0.8698 | 0.0000 | 0.0000 |        |
| 0.5788 | 0.0000 | 0.4826 | 0.0000          | 0.0000 | 0.0000 | 0.5608 | 0.5580 | 0.0000 | 0.0000 |        |
|        |        |        |                 |        |        |        |        |        |        |        |
| 1.0705 | 1.0000 | 0.9744 | THIMBLE AVERAGE |        | 1.0000 | 1.0000 | 1.0484 | 1.0392 | 1.0000 | 1.0000 |
|        |        |        |                 |        |        |        |        |        |        |        |
| 1.264  | 0.000  | 1.283  | AXIAL PEAK      |        | 0.000  | 0.000  | 1.271  | 1.283  | 0.000  | 0.000  |
|        |        |        |                 |        |        |        |        |        |        |        |
| 1.353  | 0.000  | 1.250  | AVERAGE * PEAK  |        | 0.000  | 0.000  | 1.332  | 1.333  | 0.000  | 0.000  |

## PWR CYCLE 3 DATA

### Contents

#### Tables

|             |                                                     |
|-------------|-----------------------------------------------------|
| 2.1         | PWR Reference Design Parameters at Rated Conditions |
| 2.2         | PWR Core and Component Description                  |
| 2.3         | PWR Average Assembly Fuel Loading                   |
| 2.4, Part A | PWR History                                         |
| 2.4, Part B | PWR Statepoint                                      |
| 2.4, Part C | PWR Hot-Zero-Power Data                             |
| 2.4, Part D | PWR Transient Data                                  |

#### Diagrams

|        |                                                   |
|--------|---------------------------------------------------|
| 2.2-1  | Fuel Assembly Type Locations                      |
| 2.2-2  | Pattern of Control Rod Banks                      |
| 2.2-3  | In-Core Detector Locations                        |
| 2.2-4  | Thermocouple Locations                            |
| 2.2-5  | Core Layout, Reactor Core Cross Section           |
| 2.2-6  | Core Layout, Reactor Vessel Internals             |
| 2.2-7  | Location of Primary and Secondary Sources         |
| 2.2-8  | Assembly Layout                                   |
| 2.2-8A | Assembly-wise Burnable Poison Rod Locations       |
| 2.2-9  | Spacer Grid Location                              |
| 2.2-10 | Burnable Poison Rod                               |
| 2.4-1  | Boron Letdown Curve and Histogram, Cycle 3        |
| 2.4-2  | In-Core Power Distribution, Cycle 3, 900 MWD/MTU  |
| 2.4-3  | In-Core Power Distribution, Cycle 3, 4150 MWD/MTU |
| 2.4-4  | In-Core Power Distribution, Cycle 3, 6300 MWD/MTU |
| 2.4-5  | In-Core Power Distribution, Cycle 3, 7730 MWD/MTU |

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 1 of 3Rev. 0 Date: 4/5/77

| ITEM (Unit)                           | VALUE | SOURCE                                         | COMMENTS                              |
|---------------------------------------|-------|------------------------------------------------|---------------------------------------|
| 1. full power (MWt)                   | 2200. | FSAR Table 1.4-1                               | none                                  |
| 2. power density (KW/l)               | 83.3  | Idem                                           | Calculated from data in Table 1.4-1   |
| 3. power density (watts/cm)           | 182.  | Idem                                           | Idem                                  |
| 4. system pressure (psia)             | *2100 | FP&L Reload Fuel Submittal Letter No. L-75-435 | BOC-3 pressure increased to 2100 psia |
| 5. total core flow ( $10^6$ lbs/hr)   | 101.5 | FSAR Table 1.4-1                               | none                                  |
| 6. active core flow ( $10^6$ lbs/hr)  | 97.0  | Idem                                           | none                                  |
| 7. core flow area (ft <sup>2</sup> )  | 41.8  | Idem                                           | none                                  |
| 8. core $\Delta P$ @ 100% flow (psia) | 26.   | FSAR Table 3.2.2-1                             | none                                  |

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 2.

Verified by: 729 Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 2 of 3Rev. 0 Date: 4/5/77

| ITEM (Unit)                                   | VALUE         | SOURCE                                         | COMMENTS                                                                        |
|-----------------------------------------------|---------------|------------------------------------------------|---------------------------------------------------------------------------------|
| 9. spacer single phase loss coefficient       | Not available | Not applicable                                 | none                                                                            |
| 10. core inlet temperature (°F)               | *539.         | FP&L Reload Fuel Submittal Letter No. L-75-435 | none                                                                            |
| 11. core average temperature (°F)             | *568.         | FP&L records NCCO Log Sheets                   | none                                                                            |
| 12. average fuel temperature (°F)             | 1200.         | NAI                                            | Nominal Temperatures to be used in EPRI-CELL in lieu of EPRI-THERM calculation. |
| 13. average clad temperature (°F)             | 620.          | NAI                                            | Idem                                                                            |
| 14. fraction of power produced in fuel        | .974          | FSAR Table 1.4-1                               | none                                                                            |
| 15. engineering factor, hot channel enthalpy  | 1.01          | FSAR Table 3.2.2-2                             | none                                                                            |
| 16. engineering factor, hot channel heat flux | 1.03          | FSAR Table 3.2.2-2                             | none                                                                            |

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 2

Verified by: RJL Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.1

PWR REFERENCE DESIGN PARAMETERS

AT RATED CONDITIONS

Sheet 3 of 3Rev. 0 Date: 4/5/77

| ITEM (Unit)                     | VALUE     | SOURCE                                               | COMMENTS                    |
|---------------------------------|-----------|------------------------------------------------------|-----------------------------|
| 17. cycle exposure (MWD/MTU)    | *8,700    | FP&L records                                         | none                        |
| 18. initial core loading (MTU)  | *22.02    | FP&L records<br>AEC-741's                            | Region 5 - reload fuel only |
| 19. fuel enrichment (w/o U-235) |           |                                                      |                             |
| region 1                        | 1.85      | FSAR Table 3.2.3-1                                   | none                        |
| region 2                        | 2.55      | Idem                                                 | none                        |
| region 3                        | 3.10      | Idem                                                 | none                        |
| region 4                        | 2.55      | FP&L records                                         | none                        |
| region 5A/5B                    | 2.60/2.90 | FP&L Reload Fuel<br>Submittal Letter<br>No. L-75-435 | none                        |

Note: The above enrichments are design values.  
As-built enrichments are used in Diagram 2.2-1 and Table 2.3

Verified by: 724Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 1 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

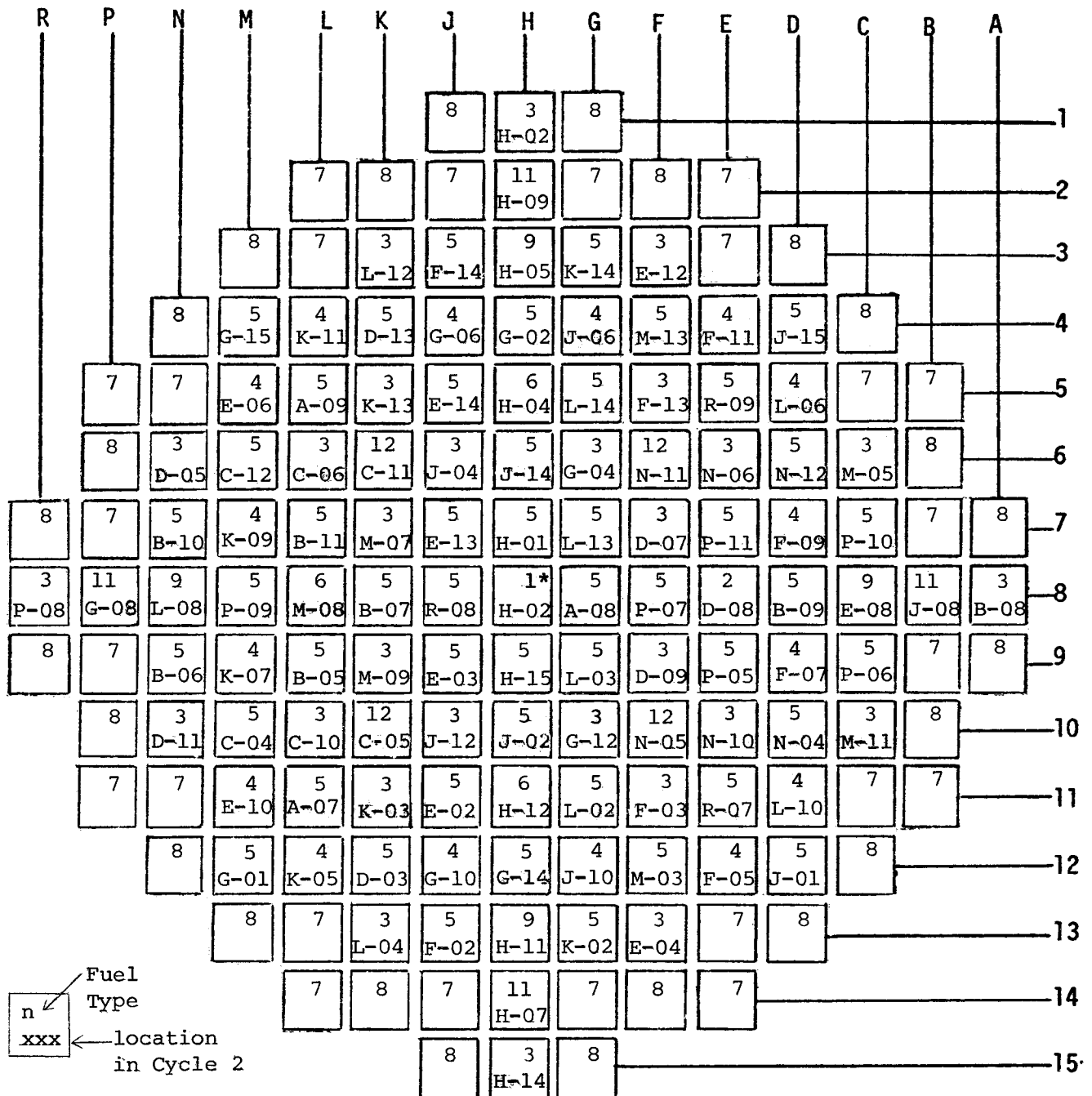
| ITEM (Unit)                                     | VALUE                           | SOURCE                                         | COMMENTS                |
|-------------------------------------------------|---------------------------------|------------------------------------------------|-------------------------|
| 1.0 <u>Core</u>                                 |                                 |                                                |                         |
| 1.1 Total number of fuel assemblies             | 157                             | FSAR Table 1.4-1                               | none                    |
| 1.2 Number of fuel assembly types**             | *11                             | FSAR Figures 3.2.1-1,7 3.2.3-3<br>FP&L records | none                    |
| 1.3 Location of individual assemblies           | *see diagram                    | FP&L records                                   | Diagram #2.2-1 attached |
| 1.4 Number of fuel assemblies of each type      | *see diagram<br>#2.2-1 attached | Idem                                           | none                    |
| 1.5 Total number of control elements (clusters) | 53                              | FSAR Table 1.4-1                               | none                    |
| 1.6 Number of control element types             | 2                               | FSAR Table 3.2.1-1                             | none                    |
| 1.7 Number of control elements of each type     | 45 full length<br>8 part length | Idem                                           | none                    |

\*\* The term "fuel assembly type" is defined by the combination of fuel enrichment, burnable poison and control rod type as used in the EPRI-NODE code. Fuel type number assignments are redefined for each cycle.

\* DATA DIFFERS FROM THAT ENTERED FOR CYCLE 1.

Verified by: RTY Date: 4/29/77

Diagram 2.2-1  
Fuel Assembly Type Locations  
Cycle 3



- |    |                                    |                                                   |
|----|------------------------------------|---------------------------------------------------|
| 1  | Fuel Type 1 assembly = Region 1    | 1.86 w/o, *=in during cycle 1, out during cycle 2 |
| 1  | Fuel Type 2 assembly = Region 2    | 2.56 w/o with BP's in cycle 2                     |
| 28 | Fuel Type 3 assemblies = Region 3  | 3.10 w/o with no BP's cycle 1 or 2                |
| 16 | Fuel Type 4 assemblies = Region 3  | 3.10 w/o with BP's cycle 1, no BP's cycle 2       |
| 48 | Fuel Type 5 assemblies = Region 4  | 2.56 w/o                                          |
| 3  | Fuel Type 6 assemblies = Region 2  | 2.56 w/o with BP's cycle 1, no BP's cycle 2       |
| 24 | Fuel Type 7 assemblies = Region 5A | 2.61 w/o                                          |
| 24 | Fuel Type 8 assemblies = Region 5B | 2.90 w/o                                          |
| 4  | Fuel Type 9 assemblies = Region 3  | 3.10 w/o no BP's cycle 1 or 2, BP's cycle 3       |
| 4  | Fuel Type 11 assemblies = Region 3 | 3.10 w/o no BP's cycle 1 or 2, PLR's cycle 3      |
| 4  | Fuel Type 12 assemblies = Region 4 | 2.56 w/o, PLR's cycle 3                           |

BP = Assembly with burnable poison rods  
PLR = Assembly with part length control rods

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

## PWR CORE AND COMPONENT DESCRIPTION

Sheet 2 of 26Rev. 0 Date: 4/5/77

| ITEM (Unit)                                            | VALUE                                            | SOURCE                                                                                          | COMMENTS                |
|--------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------|
| 1.8 Location of control elements                       | See diagram                                      | FSAR Figure 3.2.1-1                                                                             | Diagram #2.2-2 attached |
| 1.9 Total number of incore flux monitors               | 50                                               | FP&L Summary Report of Turkey Point                                                             | none                    |
|                                                        |                                                  | Unit 3 Nuclear Power Plant Start-Up Physics Measurements                                        |                         |
| 1.10 Location of incore flux monitor                   | See diagram                                      | Idem                                                                                            | Diagram #2.2-3 attached |
| 1.11 Core structure material-composition and type      | SS-304; core baffle, core barrel, thermal shield | FSAR P 3.2.3-4                                                                                  | none                    |
| 1.12 Core Structure Thickness (in)                     | Barrel = 2.0<br>Thermal shield = 2.6875          | FSAR Table 3.2.3-1                                                                              | none                    |
| 1.13 Total number of incore thermo-couples             | 51                                               | FP&L Summary Report of the Turkey Point Unit 3 Nuclear Power Plant Startup Physics Measurements | Diagram #2.2-4 attached |
|                                                        |                                                  |                                                                                                 |                         |
| Verified by: <u>  <i>AT</i>  </u> Date: <u>4/29/77</u> |                                                  |                                                                                                 |                         |

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 3 of 26

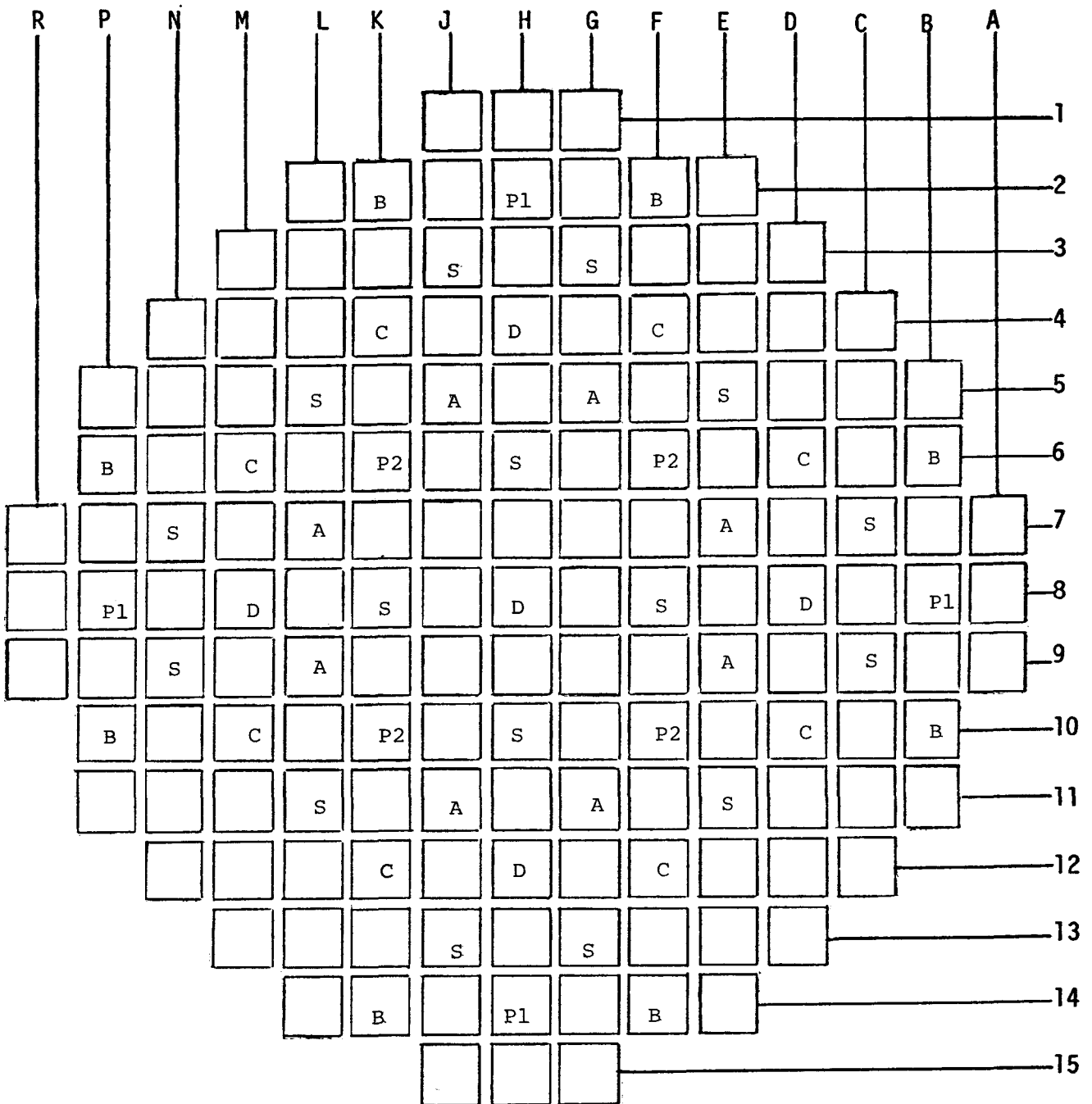
Rev. 0 Date: 4/5/77

| ITEM (Unit)                                       | VALUE                         | SOURCE                    | COMMENTS                             |
|---------------------------------------------------|-------------------------------|---------------------------|--------------------------------------|
| 1.14 Core Layout                                  | See diagram                   | FSAR Figures<br>3.2.3-1,2 | Diagram #2.2-5 and 2.2-6<br>attached |
| 1.15 Location of primary and<br>secondary sources | Core location H-3<br>and H-13 | FP&L records              | Diagram #2.2-7                       |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |
|                                                   |                               |                           |                                      |

Verified by: AZ9 Date: 4/29/77

Diagram 2.2-2

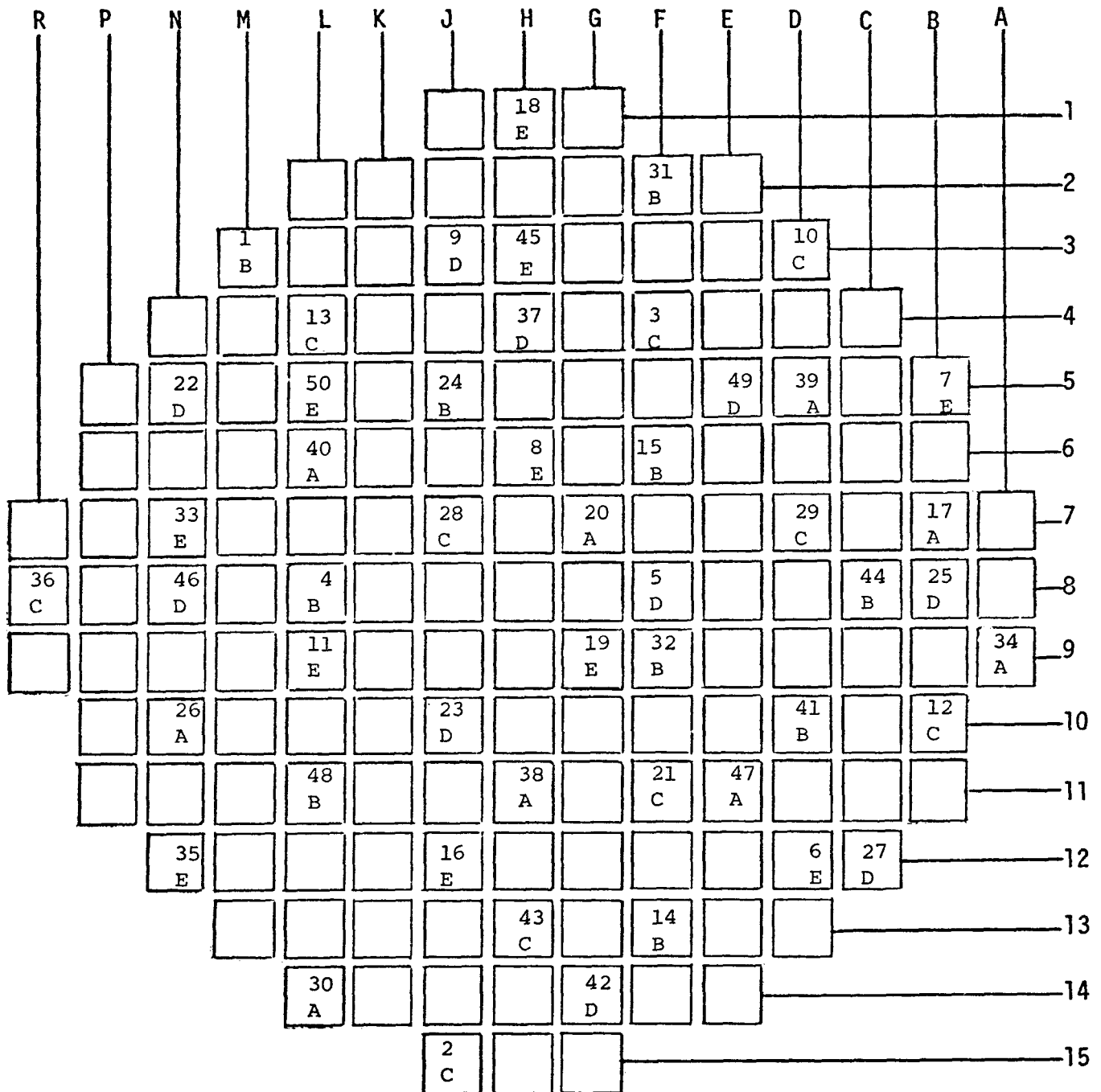
PATTERN OF CONTROL ROD BANKS



Control Rod Cluster Banks

|                      |    |
|----------------------|----|
| Control Bank A       | 8  |
| Control Bank B       | 8  |
| Control Bank C       | 8  |
| Control Bank D       | 5  |
| Shutdown Bank A&B(S) | 16 |
| Part-Length (P1)     | 4  |
| Part-Length (P2)     | 4  |

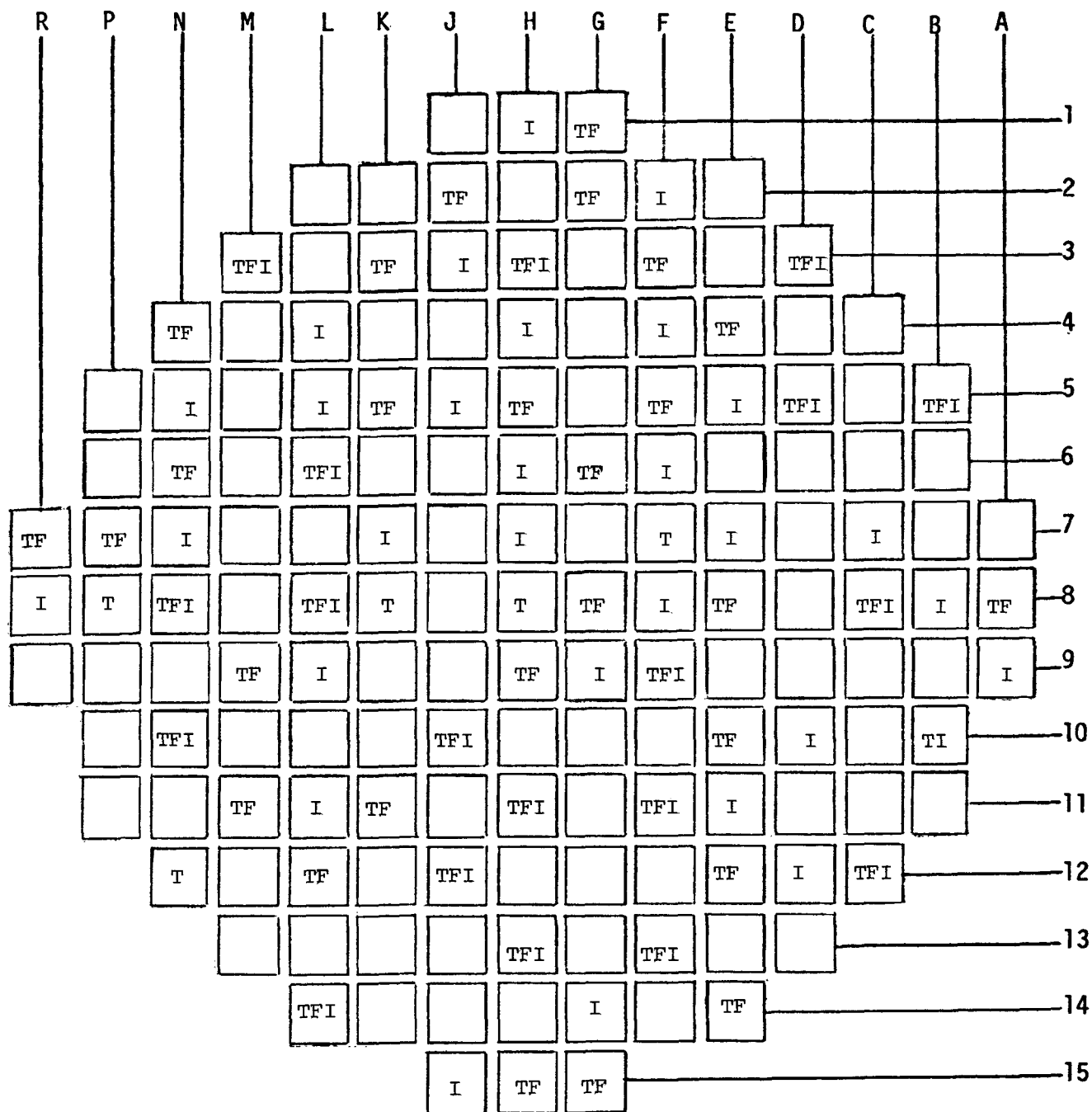
Diagram 2.2-3  
 INCORE DETECTOR LOCATIONS  
 Turkey Point Unit 3



LEGEND

|          |  |
|----------|--|
| Thimble  |  |
| Detector |  |

Diagram 2.2-4  
Thermocouple Locations



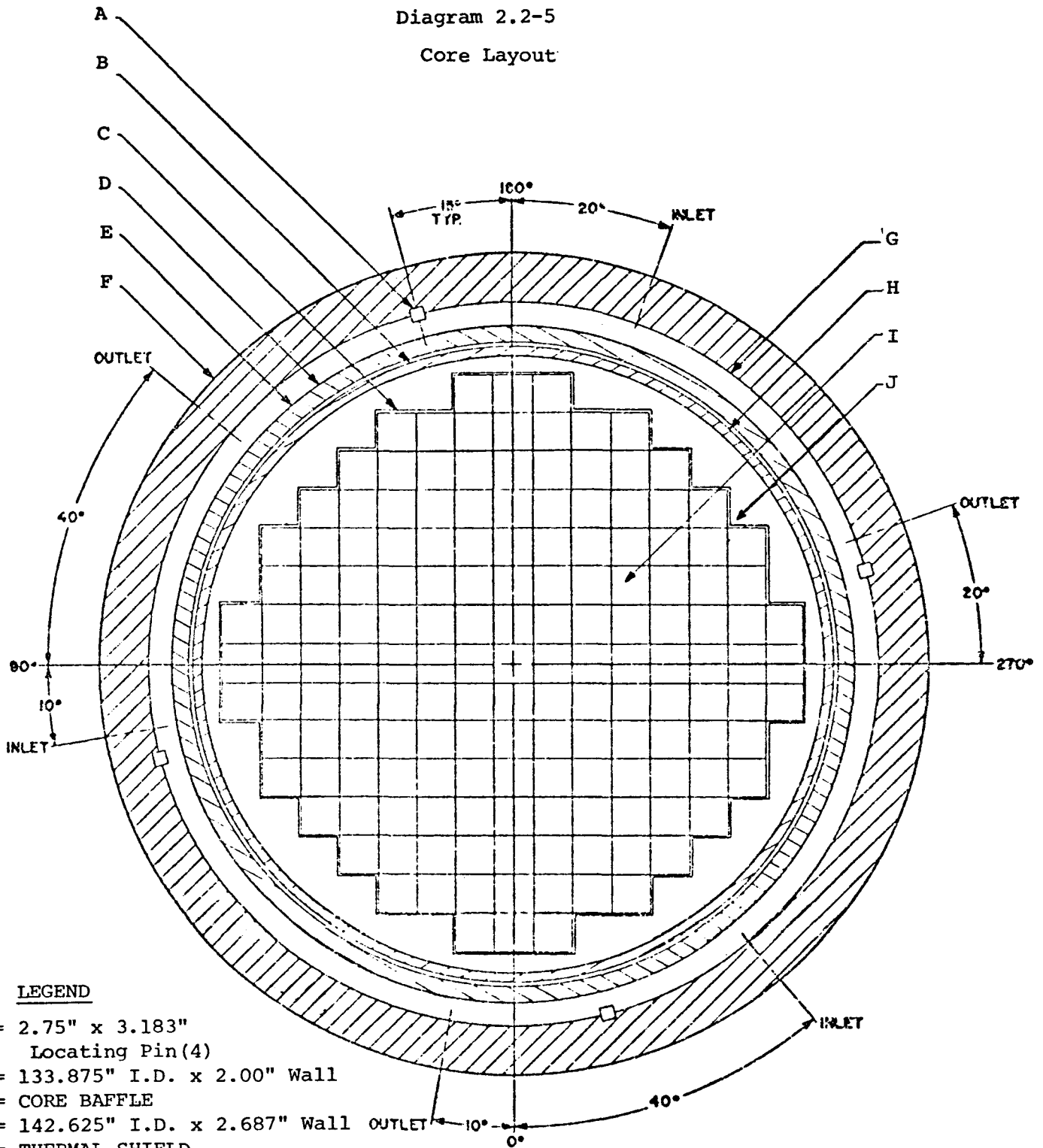
T = Thermocouple (51)

F = Flow Mixing Device (46)

I = Incore Movable Detectors (50)

Diagram 2.2-5

Core Layout

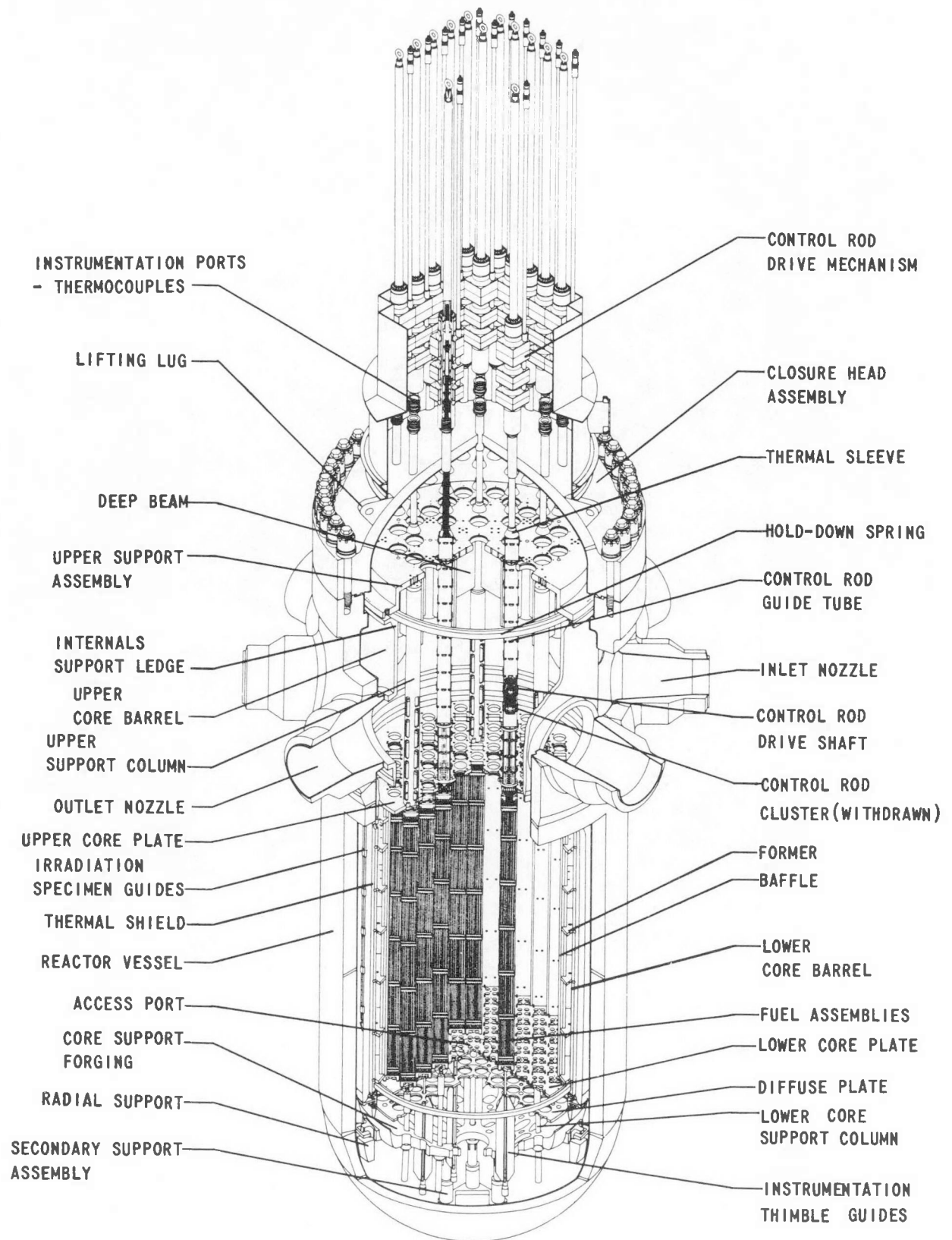


LEGEND

- A = 2.75" x 3.183"  
Locating Pin(4)
- B = 133.875" I.D. x 2.00" Wall
- C = CORE BAFFLE
- D = 142.625" I.D. x 2.687" Wall
- E = THERMAL SHIELD
- F = REACTOR VESSEL
- G = 155.50" I.D. VESSEL
- H = CORE BARREL
- I = FUEL ASSEMBLY
- J = Intra baffle-barrel area  
occupied by water at system  
pressure and temperature

REACTOR CORE CROSS SECTION

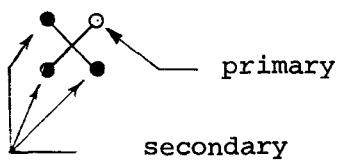
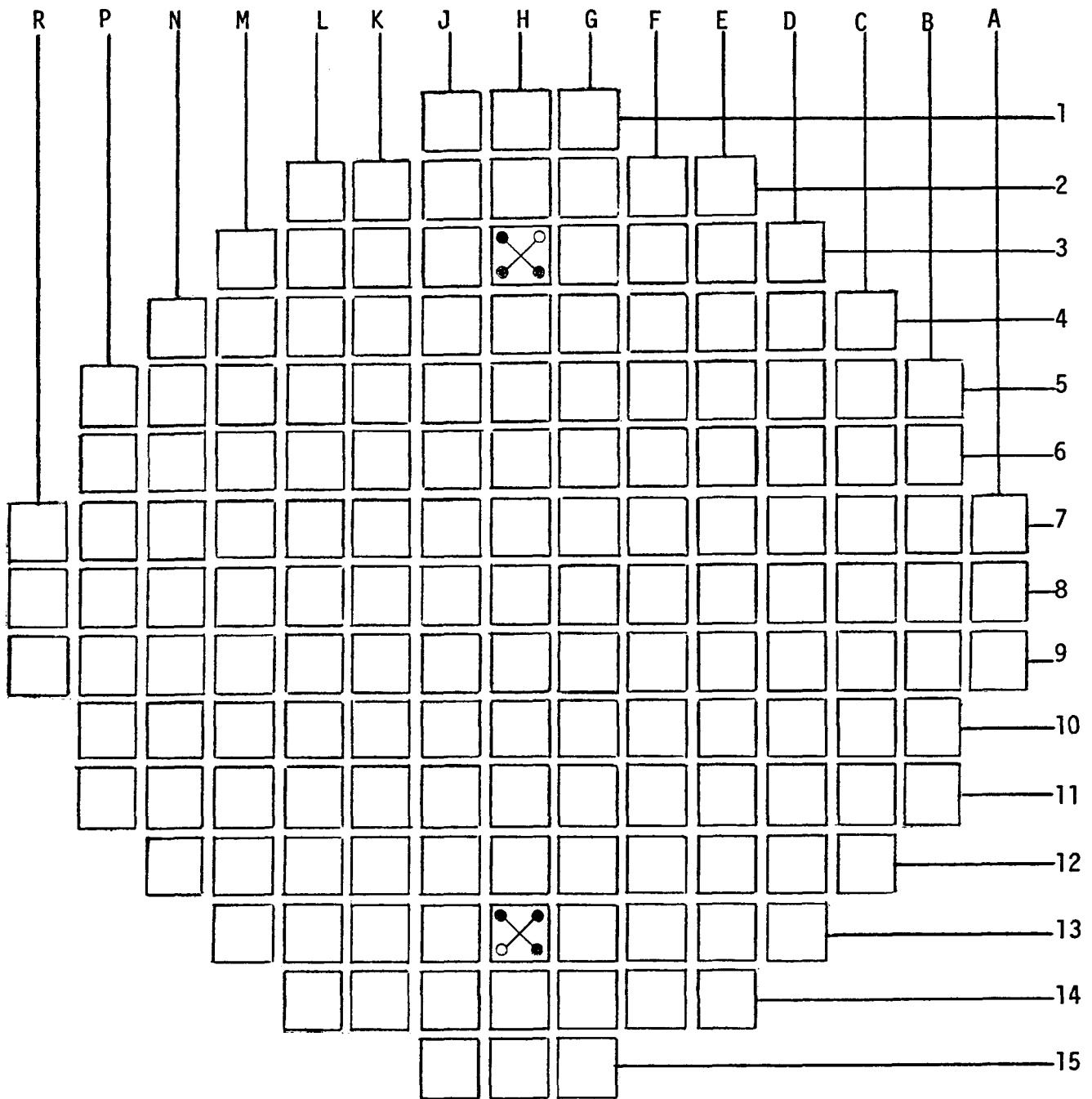
Diagram 2.2-6



Core Layout, Reactor Vessel Internals

Diagram 2.2-7

Location of Primary and Secondary Sources



Primary/Secondary  
Source Assembly

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 4 of 26

CYCLE: 3

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                         | VALUE                                   | SOURCE             | COMMENTS                                                   |
|-----------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------------------------|
| 2.0 <u>Control Rod - Pin Cluster</u><br><u>Type</u> |                                         |                    |                                                            |
| 2.1 Guide Tube Material                             | Zircaloy-4                              | FSAR P 3.2.3-14    | none                                                       |
| 2.2 Guide Tube density (g/cc)                       | 6.56                                    | NAI 70-52          | Light Water Reactor Fuel<br>Assembly Materials Data Manual |
| 2.3 Guide Tube O.D. (in)                            | above dash pot .546<br>at dash pot .488 | FSAR Table 3.2.3-8 | none                                                       |
| 2.4 Guide Tube I.D. (in)                            | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 | none                                                       |
| 2.5 Absorber clad material                          | SS-304                                  | FSAR Table 1.4-1   | none                                                       |
| 2.6 Absorber clad density (g/cc)                    | 7.91                                    | NAI 70-52          | none                                                       |
| 2.7 Absorber clad thickness (in)                    | .019                                    | FSAR Table 3.2.3-1 | none                                                       |
| 2.8 Absorber length (in)                            | 142. full length<br>36. part length     | FSAR Table 3.2.3-1 | none                                                       |
| 2.9 Absorber O.D. (in)                              | .432                                    | FSAR P 3.2.3-20    | none                                                       |

Verified By: 7221Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 5 of 26Rev. 0 Date: 4/5/77

| ITEM (Unit)                                                           | VALUE                     | SOURCE                   | COMMENTS                                                                                                                                       |
|-----------------------------------------------------------------------|---------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.10 Absorber composition                                             | 5% Cd<br>15% In<br>80% Ag | FSAR Table 3.2.3-1       | none                                                                                                                                           |
| 2.11 Follower Material (portion<br>above part length rod<br>absorber) | $\text{Al}_2\text{O}_3$   | FSAR P 3.2.3-18          | none                                                                                                                                           |
| 2.12 Follower density (g/cc)                                          | 3.9                       | Chem. Engrs.<br>Handbook | none                                                                                                                                           |
| 2.13 Follower O.D. (in)                                               | Not required              | Not applicable           | { Part length rods are prohibited<br>from being inserted into core<br>except for low power physics<br>test per FSAR Tech Spec page<br>3.2.1.E. |
| 2.14 Follower I.D. (in)                                               | Not required              | Not applicable           |                                                                                                                                                |
| 2.15 Follower length (in)                                             | Not required              | Not applicable           |                                                                                                                                                |
|                                                                       |                           |                          |                                                                                                                                                |
|                                                                       |                           |                          |                                                                                                                                                |
|                                                                       |                           |                          |                                                                                                                                                |
|                                                                       |                           |                          |                                                                                                                                                |

Verified By: 1729Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 6 of 26Rev. 0 Date: 4/5/77

| ITEM (Unit)                           | VALUE                                   | SOURCE                       | COMMENTS                                  |
|---------------------------------------|-----------------------------------------|------------------------------|-------------------------------------------|
| 3.0 <u>Instrument Cell</u>            |                                         |                              |                                           |
| 3.1 Instrument tube material          | Zircaloy-4                              | FSAR P 3.2.3-10,<br>3.2.3-14 | none                                      |
| 3.2 Instrument tube density<br>(g/cc) | 6.56                                    | NAI 70-52                    | none                                      |
| 3.3 Instrument tube O.D. (in)         | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8            | Calculated from data in<br>Figure 3.2.3-8 |
| 3.4 Instrument tube I.D. (in)         | above dash pot .512<br>at dash pot .455 | FSAR Fig. 3.2.3-8            | none                                      |
| 3.5 Spacer sleeve material            | Not available                           | Not applicable               | none                                      |
| 3.6 Spacer sleeve density (g/cc)      | ----                                    | Not applicable               | none                                      |
| 3.7 Spacer sleeve length (in)         | Not available                           | Not applicable               | none                                      |
| 3.8 Spacer sleeve O.D. (in)           | Not available                           | Not applicable               | none                                      |
| 3.9 Spacer sleeve I.D. (in)           | Not available                           | Not applicable               | none                                      |

Verified By: 724Date: 4/27/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 7 of 26

Rev. 0 Date: 4/5/77

| ITEM (Unit)                           | VALUE           | SOURCE         | COMMENTS |
|---------------------------------------|-----------------|----------------|----------|
| 3.10 Instrument pin clad O.D.<br>(in) | Not applicable  | Not applicable | none     |
| 3.11 Instrument pin clad I.D.<br>(in) | Not applicable  | Not applicable | none     |
| 3.12 Detector types                   | fission chamber | FSAR P 7.6-2   | none     |
| 3.13 Thermocouple type                | Chromel-Alumel  | Idem           | none     |
| 3.14 Background detector type         | None            | Not applicable | none     |
|                                       |                 |                |          |
|                                       |                 |                |          |
|                                       |                 |                |          |
|                                       |                 |                |          |
|                                       |                 |                |          |

Verified By: ATG Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 8 of 26

CYCLE: 3

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77FUEL ASSEMBLY TYPE: All types except 9

| ITEM (Unit)                                                  | VALUE         | SOURCE                                    | COMMENTS                |
|--------------------------------------------------------------|---------------|-------------------------------------------|-------------------------|
| 4.0 <u>Fuel Assembly (for each fuel assembly type)</u>       |               |                                           |                         |
| 4.1 Assembly layout                                          | See diagram   | FSAR Fig. 3.2.3-8                         | Diagram #2.2-8 attached |
| 4.2 Assembly pitch (in)                                      | 8.466         | Idem                                      | none                    |
| 4.3 Assembly geometry                                        | 15 x 15 array | FSAR Table 3.2.3-1                        | none                    |
| 4.4 Fuel pin pitch (in)                                      | .563          | Idem                                      | none                    |
| 4.5 Fuel pins per assembly                                   | 204           | Idem                                      | none                    |
| 4.6 Fuel pin length (in)                                     | 152.060       | Idem                                      | none                    |
| 4.7 Instrument pins per assembly<br>(Instrumentation Sheath) | 1             | FSAR Fig. 3.2.3-8                         | none                    |
| 4.8 Water holes (or inert pins)<br>per assembly              | 0             | Idem                                      | none                    |
| 4.9 Burnable poison positions<br>per assembly                | 0             | FSAR Figures<br>3.2.1-7,8<br>Fig. 3.2.3-3 | none                    |

Verified By: ATYDate: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 9 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL ASSEMBLY TYPE: All types except 9

| ITEM (Unit)                                 | VALUE         | SOURCE             | COMMENTS                |
|---------------------------------------------|---------------|--------------------|-------------------------|
| 4.10 Control positions per assembly         | 20            | FSAR Table 3.2.3-1 | none                    |
| 4.11 Spacer grids per assembly and location | 7             | FSAR Fig. 3.2.3-9  | Diagram #2.2-9 attached |
| 4.12 Spacer grid material                   | Inconel 718   | FSAR P 3.2.3-15    | none                    |
| 4.13 Mass per grid (g)                      | Not available | Not applicable     | none                    |
| 4.14 Spacer grid thickness (in)             | Idem          | Not applicable     | none                    |
| 4.15 Spacer grid height (in)                | Idem          | Not applicable     | none                    |
|                                             |               |                    |                         |
|                                             |               |                    |                         |
|                                             |               |                    |                         |
|                                             |               |                    |                         |

Verified By: ASZ Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 10 of 26

CYCLE: 3

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL ASSEMBLY TYPE: 9

| ITEM (Unit)                                                  | VALUE             | SOURCE                              | COMMENTS                 |
|--------------------------------------------------------------|-------------------|-------------------------------------|--------------------------|
| 4.0 <u>Fuel Assembly (for each fuel assembly type)</u>       |                   |                                     |                          |
| 4.1 Assembly layout                                          | See diagram       | FSAR Fig. 3.2.3-8                   | Diagram #2.2-8 attached  |
| 4.2 Assembly pitch (in)                                      | 8.466             | Idem                                | none                     |
| 4.3 Assembly geometry                                        | 15 x 15 array     | FSAR Table 3.2.3-1                  | none                     |
| 4.4 Fuel pin pitch (in)                                      | .563              | Idem                                | none                     |
| 4.5 Fuel pins per assembly                                   | 204               | Idem                                | none                     |
| 4.6 Fuel pin length (in)                                     | 152.060           | Idem                                | none                     |
| 4.7 Instrument pins per assembly<br>(Instrumentation Sheath) | 1                 | FSAR Fig. 3.2.3-8                   | none                     |
| 4.8 Water holes (or inert pins)<br>per assembly              | 0                 | Idem                                | none                     |
| 4.9 Burnable poison positions<br>per assembly                | 12<br>See diagram | FSAR Figs 3.2.1-7,8<br>Fig. 3.2.3-3 | Diagram #2.2-8A attached |

Verified By: RTG Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 11 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL ASSEMBLY TYPE: 9

| ITEM (Unit)                                 | VALUE         | SOURCE             | COMMENTS                |
|---------------------------------------------|---------------|--------------------|-------------------------|
| 4.10 Control positions per assembly         | 20            | FSAR Table 3.2.3-1 | none                    |
| 4.11 Spacer grids per assembly and location | 7             | FSAR Fig. 3.2.3-9  | Diagram #2.2-9 attached |
| 4.12 Spacer grid material                   | Inconel 718   | FSAR p 3.2.3-15    | none                    |
| 4.13 Mass per grid (g)                      | Not available | Not applicable     | none                    |
| 4.14 Spacer grid thickness (in)             | Not available | Not applicable     | none                    |
| 4.15 Spacer grid height (in)                | Not available | Not applicable     | none                    |
|                                             |               |                    |                         |
|                                             |               |                    |                         |
|                                             |               |                    |                         |
|                                             |               |                    |                         |

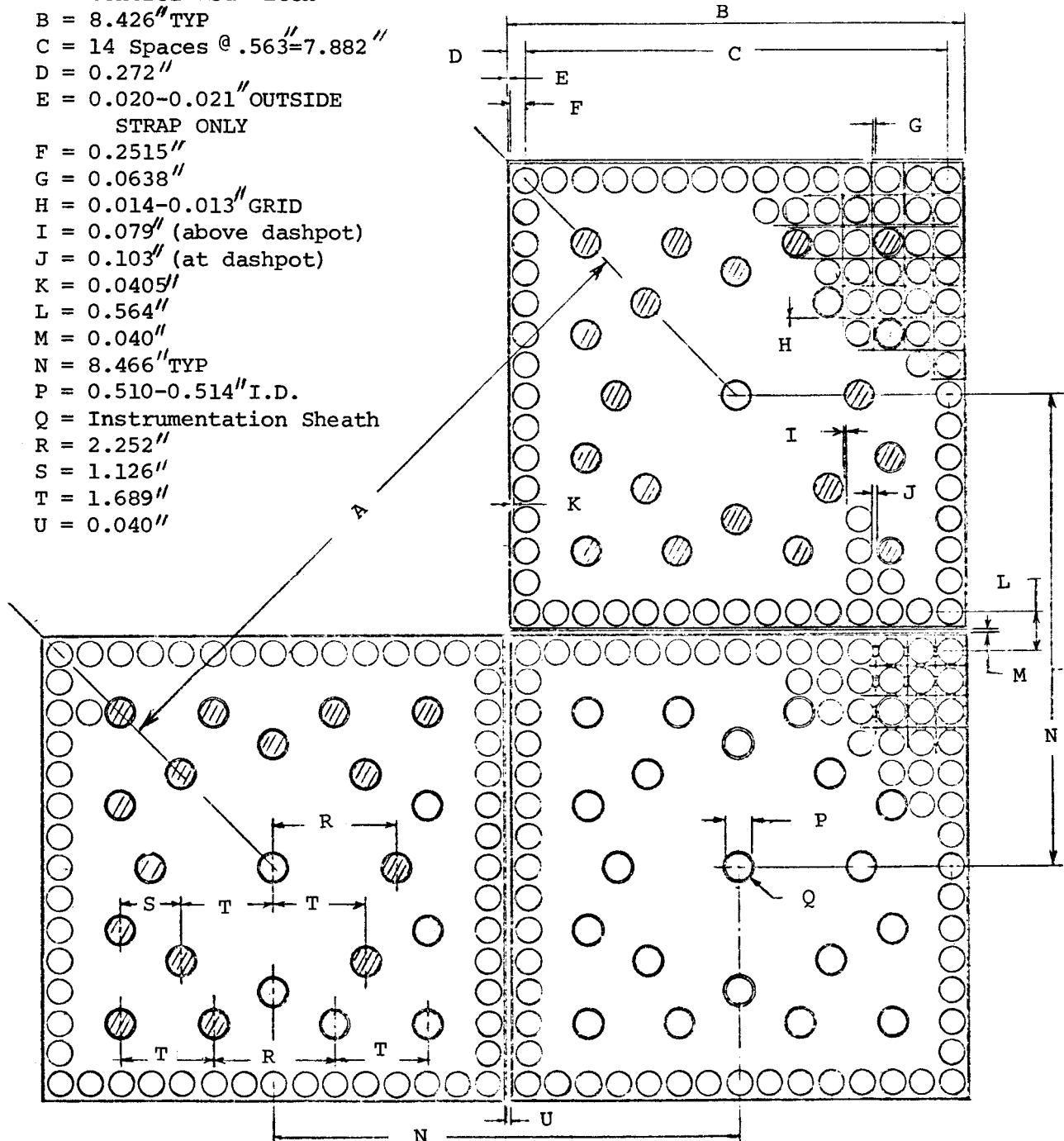
Verified By: 124 Date: 4/29/77

Diagram 2.2-8

Assembly Layout

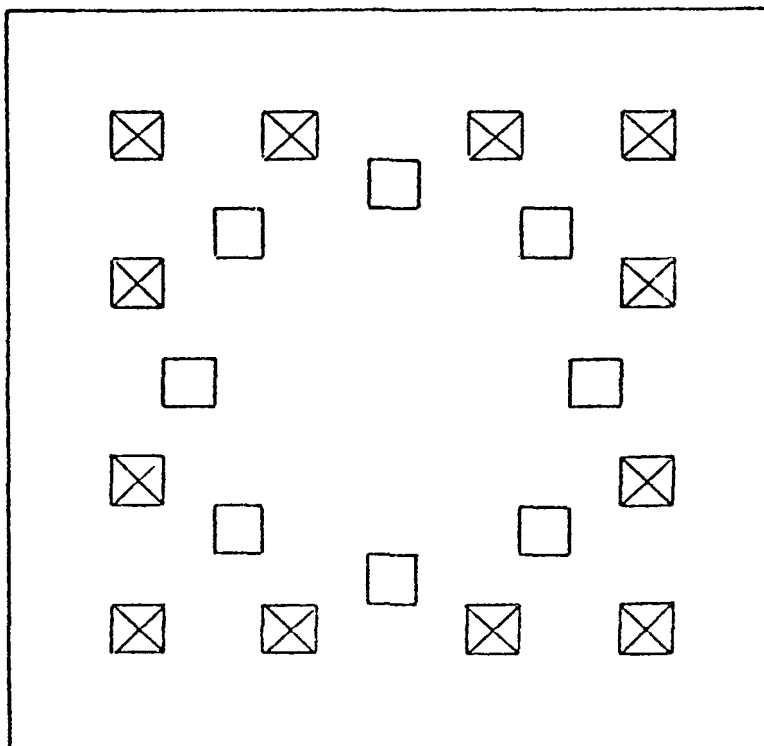
LEGEND

- A = 11.973" Fuel Ass'y and Control Rod Pitch
- B = 8.426" TYP
- C = 14 Spaces @ .563" = 7.882"
- D = 0.272"
- E = 0.020-0.021" OUTSIDE STRAP ONLY
- F = 0.2515"
- G = 0.0638"
- H = 0.014-0.013" GRID
- I = 0.079" (above dashpot)
- J = 0.103" (at dashpot)
- K = 0.0405"
- L = 0.564"
- M = 0.040"
- N = 8.466" TYP
- P = 0.510-0.514" I.D.
- Q = Instrumentation Sheath
- R = 2.252"
- S = 1.126"
- T = 1.689"
- U = 0.040"



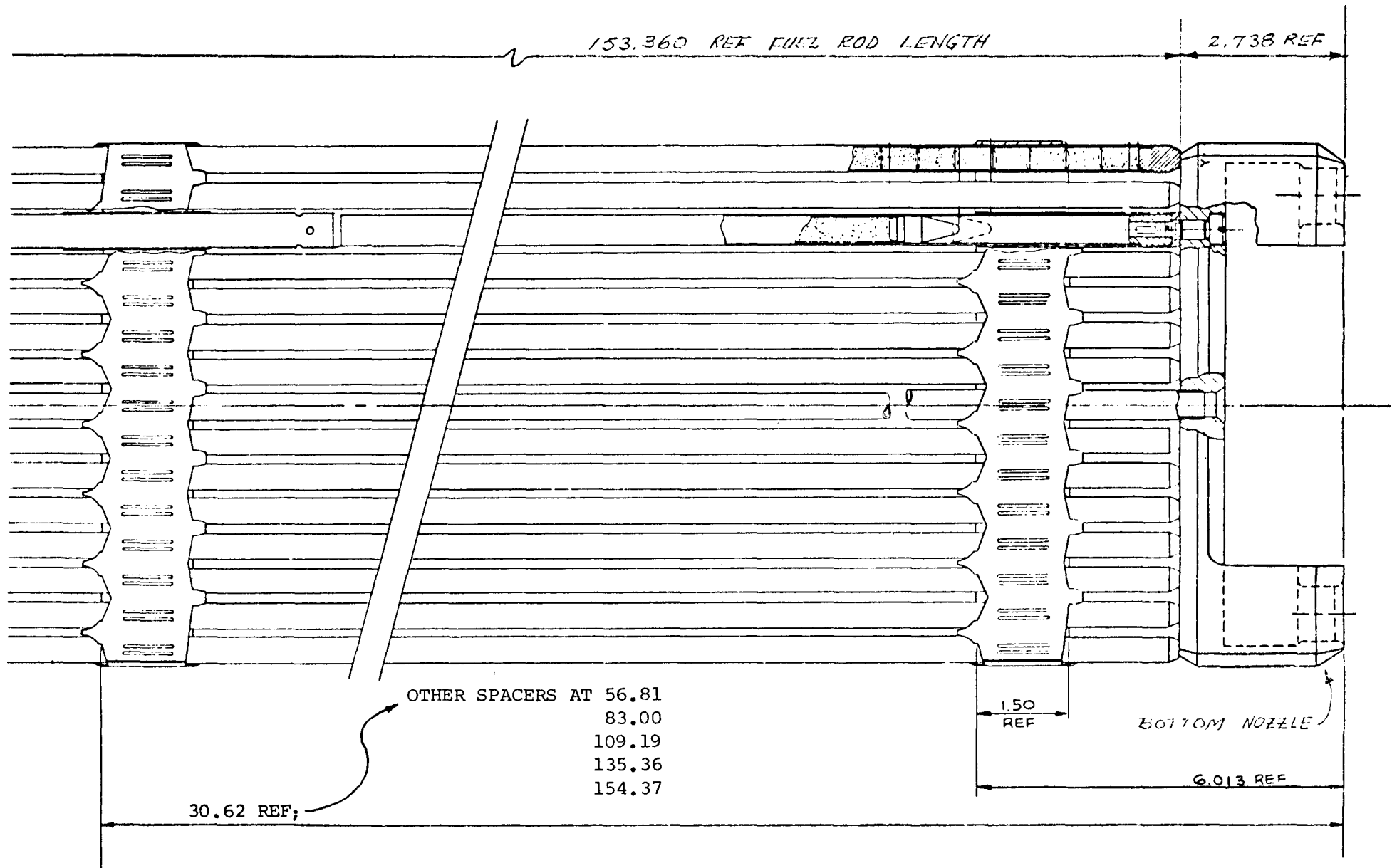
FUEL ASSEMBLY AND CONTROL CLUSTER CROSS SECTION

Diagram 2.2-8A



Assembly-wise Burnable Poison Rod Locations

Diagram 2.2-9  
Spacer Grid Locations



REACTOR: Turkey Point 3

CYCLE: 3

FUEL PIN TYPE: 1.85 w/o

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 12 of 26

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                               | VALUE                   | SOURCE             | COMMENTS |
|-----------------------------------------------------------|-------------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                         |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub><br>1.85 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.3                    | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                    | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                   | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D, and depth) (in) | Not available           | Not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144                     | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4              | FSAR Table 1.4-1   | none     |

Verified by: 1729

Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 13 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 1.85 w/o

| ITEM (Unit)                                  | VALUE | SOURCE                              | COMMENTS                            |
|----------------------------------------------|-------|-------------------------------------|-------------------------------------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52                           | none                                |
| 5.9 Fuel clad O.D. (in)                      | .422  | FSAR Table 1.4-1                    | none                                |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem                                | Calculated from data in Table 1.4-1 |
| 5.11 Unheated length at top of fuel pin (in) | ~ 7   | FSAR Table 3.2.3-1 and Fig. 3.2.3-9 | Approximate                         |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |
|                                              |       |                                     |                                     |

Verified by: PZ4 Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 14 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 2.55 w/o (Region 2)

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 2.55 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.19                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available        | Not applicable     | none     |
| 5.6 Fuel pellet stack height (in)                         | 144.                 | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified by: JZG

Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 15 of 26

CYCLE: 3  
FUEL PIN TYPE 2.55 w/o (Region 2)

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                     | VALUE | SOURCE                               | COMMENTS                               |
|-------------------------------------------------|-------|--------------------------------------|----------------------------------------|
| 5.8 Fuel clad density (g/cc)                    | 6.56  | NAI 70-52                            | none                                   |
| 5.9 Fuel clad O.D. (in)                         | .422  | FSAR Table 1.4-1                     | none                                   |
| 5.10 Fuel clad I.D. (in)                        | .3734 | Idem                                 | Calculated from data in<br>Table 1.4-1 |
| 5.11 Unheated length at top of<br>fuel pin (in) | ~ 7   | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | Approximate                            |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |

Verified by: AKY Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 16 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 3.10 w/o (Region 3)

| ITEM (Unit)                                               | VALUE                | SOURCE             | COMMENTS |
|-----------------------------------------------------------|----------------------|--------------------|----------|
| 5.0 Fuel Pin (required for each fuel pin type)            |                      |                    |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 3.10 | FSAR Table 1.4-1   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.08                | FSAR Table 3.2.3-1 | none     |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem               | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3649                | Idem               | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available        | FSAR Table 3.2.3-1 | none     |
| 5.6 Fuel pellet stack height (in)                         | 143.474              | FSAR Table 3.2.3-1 | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | FSAR Table 1.4-1   | none     |

Verified by: 829 Date: 9/27/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 17 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

FUEL PIN TYPE 3.10 w/o(Region 3)

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                     | VALUE | SOURCE                               | COMMENTS                               |
|-------------------------------------------------|-------|--------------------------------------|----------------------------------------|
| 5.8 Fuel clad density (g/cc)                    | 6.56  | NAI 70-52                            | none                                   |
| 5.9 Fuel clad O.D. (in)                         | .422  | FSAR Table 1.4-1                     | none                                   |
| 5.10 Fuel clad I.D. (in)                        | .3734 | Idem                                 | Calculated from data in<br>Table 1.4-1 |
| 5.11 Unheated length at top of<br>fuel pin (in) | ~ 7   | FSAR Table 3.2.3-1<br>Figure 3.2.3-9 | Approximate                            |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |
|                                                 |       |                                      |                                        |

Verified by: PPY Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 18 of 26

CYCLE: 3

## PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77FUEL PIN TYPE 2.55 w/o (Region 4)

| ITEM (Unit)                                               | VALUE                | SOURCE         | COMMENTS |
|-----------------------------------------------------------|----------------------|----------------|----------|
| 5.0 Fuel pin (required for each fuel pin type)            |                      |                |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 2.55 | FP&L Records   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.41                | Idem           | 95% TD   |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem           | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                | Idem           | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth, (in) | Not available        | Not applicable | none     |
| 5.6 Fuel pellet stack height (in)                         | 144                  | FP&L Records   | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | Idem           | none     |

Verified by: 729Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 19 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 2.55 w/o (Region 4)

| ITEM (Unit)                                  | VALUE | SOURCE       | COMMENTS |
|----------------------------------------------|-------|--------------|----------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52    | none     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FP&L Records | none     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem         | none     |
| 5.11 Unheated length at top of fuel pin (in) | ~ 7   | Idem         | none     |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |

Verified by: RTY

Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 20 of 26

CYCLE: 3  
FUEL PIN TYPE 2.6 w/o (Region 5A)

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                               | VALUE                | SOURCE         | COMMENTS |
|-----------------------------------------------------------|----------------------|----------------|----------|
| 5.0 Fuel pin (required for each fuel pin type)            |                      |                |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub> 2.60 | FP&L Records   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.41                | Idem           | 95% TD   |
| 5.3 Fuel pellet length (in)                               | .600                 | Idem           | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                | Idem           | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available        | Not applicable | none     |
| 5.6 Fuel pellet stack height (in)                         | 144                  | FP&L Records   | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4           | Idem           | none     |

Verified by:   JZ  

Date:   4/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 21 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 2.60 w/o (Region 5A)

| ITEM (Unit)                                  | VALUE | SOURCE       | COMMENTS |
|----------------------------------------------|-------|--------------|----------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52    | none     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FP&L Records | none     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem         | none     |
| 5.11 Unheated length at top of fuel pin      | ~ 7   | Idem         | none     |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
| Verified by: <u>RTY</u> Date: <u>4/29/77</u> |       |              |          |

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 22 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 2.90 w/o (Region 5B)

| ITEM (Unit)                                               | VALUE                   | SOURCE         | COMMENTS |
|-----------------------------------------------------------|-------------------------|----------------|----------|
| 5.0 Fuel pin (required for each fuel pin type)            |                         |                |          |
| 5.1 Fuel pellet material and enrichment (w/o U235)        | UO <sub>2</sub><br>2.90 | FP&L Records   | none     |
| 5.2 Fuel pellet density (g/cc)                            | 10.41                   | Idem           | 95% TD   |
| 5.3 Fuel pellet length (in)                               | .600                    | Idem           | none     |
| 5.4 Fuel pellet O.D. (in)                                 | .3659                   | Idem           | none     |
| 5.5 Fuel pellet dish factor (or dish O.D. and depth) (in) | Not available           | Not applicable | none     |
| 5.6 Fuel pellet stack height (in)                         | 144                     | FP&L Records   | none     |
| 5.7 Fuel clad material                                    | Zircaloy-4              | Idem           | none     |

Verified by: ADP Date: 9/29/77

REACTOR: Turkey Point 3

TABLE 2.2

Sheet 23 of 26

CYCLE: 3

PWR CORE AND COMPONENT DESCRIPTION

Rev. 0 Date: 4/5/77

FUEL PIN TYPE 2.90 w/o (Region 5B)

| ITEM (Unit)                                  | VALUE | SOURCE       | COMMENTS |
|----------------------------------------------|-------|--------------|----------|
| 5.8 Fuel clad density (g/cc)                 | 6.56  | NAI 70-52    | none     |
| 5.9 Fuel clad O.D. (in)                      | .422  | FP&L Records | none     |
| 5.10 Fuel clad I.D. (in)                     | .3734 | Idem         | none     |
| 5.11 Unheated length at top of fuel pin (in) | ~7    | Idem         | none     |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |
|                                              |       |              |          |

Verified by: ATZ Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 24 of 26Rev. 0 Date: 4/5/77

| ITEM (Unit)                                                             | VALUE | SOURCE | COMMENTS                                                                                                                                   |
|-------------------------------------------------------------------------|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 6.0 Water (or inert) Rod Cell<br>For each water (or inert<br>cell type) |       |        |                                                                                                                                            |
|                                                                         |       |        |                                                                                                                                            |
| 6.1 Tube material and density<br>(g/cc)                                 | none  |        | No additional water cell data<br>required. Guide tubes contain<br>either control rod, instrument<br>pin, burnable poison rods or<br>water. |
|                                                                         |       |        |                                                                                                                                            |
| 6.2 Tube O.D. (in)                                                      |       |        |                                                                                                                                            |
| 6.3 Tube I.D. (in)                                                      |       |        |                                                                                                                                            |
| 6.4 Inert material                                                      |       |        |                                                                                                                                            |
| 6.5 Inert material density<br>(g/cc)                                    |       |        |                                                                                                                                            |
| 6.6 Inert material O.D. (in)                                            |       |        |                                                                                                                                            |
| 6.7 Inert material I.D. (in)                                            |       |        |                                                                                                                                            |
| Verified By: <u>AKG</u> Date: <u>4/29/77</u>                            |       |        |                                                                                                                                            |

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

PWR CORE AND COMPONENT DESCRIPTION

Sheet 25 of 26Rev. 0 Date: 4/5/77

| ITEM (Unit)                                                          | VALUE                                   | SOURCE             | COMMENTS                               |
|----------------------------------------------------------------------|-----------------------------------------|--------------------|----------------------------------------|
| 7.0 <u>Burnable Poison Cell</u> (for each burnable poison cell type) |                                         |                    |                                        |
| 7.1 Guide tube material                                              | Zircaloy-4                              | FSAR p 3.2.3-14    | none                                   |
| 7.2 Guide tube density (g/cc)                                        | 6.56                                    | NAI 70-52          | none                                   |
| 7.3 Guide tube O.D. (in)                                             | above dash pot .546<br>at dash pot .488 | FSAR Fig. 3.2.3-8  | Calculated from data in Figure 3.2.3-8 |
| 7.4 Guide tube I.D. (in)                                             | above dash pot .512<br>at dash pot .455 | FSAR Table 3.2.3-1 | none                                   |
| 7.5 Burnable poison pin clad material                                | Stainless steel                         | Idem               | none                                   |
| 7.6 Burnable poison clad density (g/cc)                              | 7.91                                    | NAI 70-52          | none                                   |
| 7.7 Burnable poison clad O.D. (in)                                   | .4395                                   | FSAR Table 3.2.3-1 | none                                   |
| 7.8 Burnable poison clad I.D. (in)                                   | Not available                           | Not applicable     | none                                   |
| 7.9 Poison pin material                                              | Borosilicate glass                      | FSAR Table 3.2.3-1 | none                                   |

Verified By: RTYDate: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.2

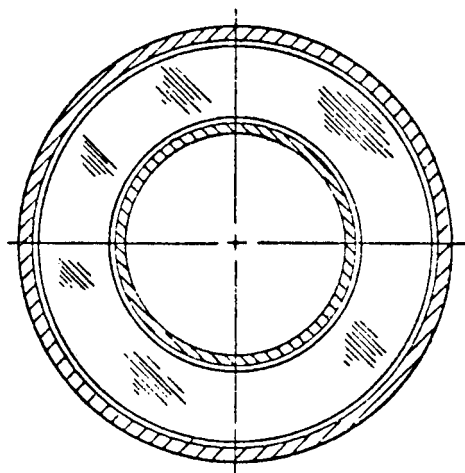
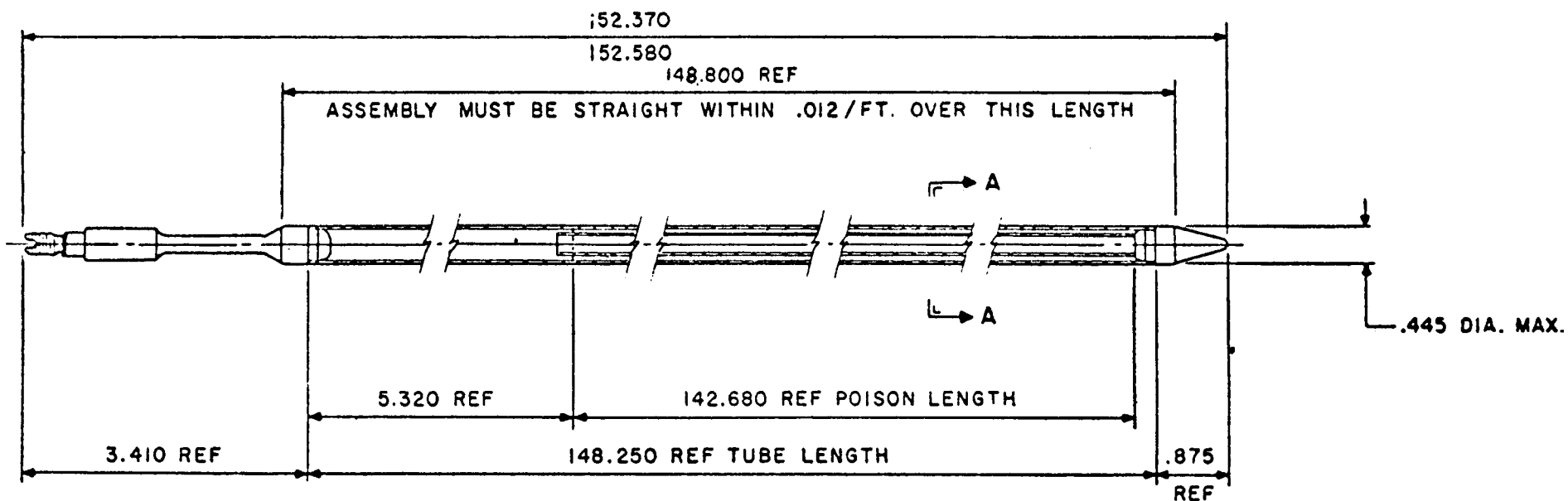
PWR CORE AND COMPONENT DESCRIPTION

Sheet 26 of 26

Rev. 0 Date: 4/5/77

| ITEM (Unit)                              | VALUE                               | SOURCE             | COMMENTS                 |
|------------------------------------------|-------------------------------------|--------------------|--------------------------|
| 7.10 Poison pin density                  | linear $B_{nat} =$<br>.0429 g/cm    | FSAR Table 3.2.3-1 | none                     |
| 7.11 Poison pin O.D. (in)                | Not available                       | Not applicable     | none                     |
| 7.12 Poison pin I.D. (in)                | Not available                       | Not applicable     | none                     |
| 7.13 Poison pin composition              | .0429 gm B-natural<br>per cm height | FSAR Table 3.2.3-1 | none                     |
| 7.14 Poison length and axial<br>location | 142.680<br>See diagram              | FSAR Fig. 3.2.3-11 | Diagram #2.2-10 attached |
| 7.15 Inner Tube material                 | S.S.                                | FSAR Table 3.2.3-1 | none                     |
| 7.16 Inner Tube O.D.                     | .2365                               | Idem               | none                     |
| 7.17 Inner Tube I.D.                     | Not available                       |                    |                          |

Verified by: RTY Date: 4/29/77



SECTION A-A  
 ENLARGED DETAIL

Diagram 2.2-10  
 Burnable Poison Rod

REACTOR: Turkey Point 3

TABLE 2.3 PART A

Sheet 1 of 3

CYCLE: 3

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 0 Date: 4/5/77

ASSEMBLY TYPE: 7 (Region 5A)

| ITEM (Unit)          | VALUE  | SOURCE                                                | COMMENTS                  |
|----------------------|--------|-------------------------------------------------------|---------------------------|
| <u>Material</u> (kg) |        |                                                       |                           |
| 1. U-total           | 458.2  | FP&L Records AEC -<br>741's, Fuel Shipping<br>Records | none                      |
| 2. U-238             |        |                                                       |                           |
| 3. U-235             | 11.978 | Idem                                                  | none                      |
| 4. U-234             |        |                                                       |                           |
| 5. U-236             |        |                                                       |                           |
| 6. $\text{UO}_2$     | 519.8  | Idem                                                  | Calculated from U - total |
| 7. B - Natural       |        |                                                       |                           |
| 8. B-10              |        |                                                       |                           |
| 9. w/o U-235         | 2.614  | Idem                                                  | none                      |

Verified By: RTT

Date: 4/29/77

REACTOR: Turkey Point 3

TABLE 2.3

Sheet 2 of 3

CYCLE: 3

PWR AVERAGE ASSEMBLY FUEL LOADING

Rev. 0 Date: 4/5/77

ASSEMBLY TYPE: 8 (Region 5B)

| ITEM (Unit)          | VALUE  | SOURCE                                                | COMMENTS                |
|----------------------|--------|-------------------------------------------------------|-------------------------|
| <u>Material</u> (kg) |        |                                                       |                         |
| 1. U-total           | 456.5  | FP&L Records AEC -<br>741's, Fuel Shipping<br>Records | none                    |
| 2. U-238             |        |                                                       |                         |
| 3. U-235             | 13.217 | Idem                                                  | none                    |
| 4. U-234             |        |                                                       |                         |
| 5. U-236             |        |                                                       |                         |
| 6. $\text{UO}_2$     | 517.9  | Idem                                                  | Calculated form U-total |
| 7. B - Natural       |        |                                                       |                         |
| 8. B-10              |        |                                                       |                         |
| 9. w/o U-235         | 2.895  | Idem                                                  | none                    |

Verified By: 724

Date: 4/24/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.3

PWR AVERAGE ASSEMBLY FUEL LOADING

Sheet 3 of 3

Rev. 1 Date: 5/12/78

| ITEM (Unit) | VALUE | SOURCE | COMMENTS |
|-------------|-------|--------|----------|
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |
|             |       |        |          |

| <u>Current Cycle Fuel Type</u> | <u>Previous Cycle Fuel Type</u> |                | <u>As-Built Enrichment</u>  |
|--------------------------------|---------------------------------|----------------|-----------------------------|
|                                | <u>Cycle 1</u>                  | <u>Cycle 2</u> | <u>Weight Percent U-235</u> |
| 1                              | 11                              | out            | 1.861                       |
| 2                              | 2                               | 6              | 2.56                        |
| 3                              | 3                               | 3              | 3.101                       |
| 4                              | 4                               | 4              | 2.56                        |
| 5                              | -                               | 5              | 2.56                        |
| 6                              | 2                               | 6              | 2.614                       |
| 7                              | -                               | -              | 2.895                       |
| 8                              | -                               | -              | 3.101                       |
| 9                              | 3                               | 3              | 3.101                       |
| 11                             | 2,3                             | 6,3            | 2.56, 3.101                 |
| 12                             | -                               | 5              | 2.56                        |

Verified by: ATL

Date: 5/19/78

REACTOR: Turkey Point 3

TABLE 2.4 PWR OPERATING DATA

Sheet 1 of 1

CYCLE: 3

PART A - PWR HISTORY

Rev. 0 Date: 4/5/77

Exposure 0 MWD/MTU to 8500 MWD/MTU

| ITEM (Unit)                                 | VALUE                      | SOURCE                 | COMMENTS                                                                                               |
|---------------------------------------------|----------------------------|------------------------|--------------------------------------------------------------------------------------------------------|
| 1. Core power (MWt)                         | See Diagram 2.4-1 attached | FP&L Records<br>TPTRAC | Calculated                                                                                             |
| 2. Total core flow (10 <sup>6</sup> lbs/hr) | 101.5                      | Idem                   | Nominal 100%                                                                                           |
| 3. System pressure (psia)                   | 2100                       | Idem                   | Nominal                                                                                                |
| 4. Soluble poison concentration (ppm)       | See Diagram 2.4-1 attached | Idem                   | Soluble Poison Curve is for the core condition of hot-full power, all rods out, and equilibrium Xenon. |
|                                             |                            |                        |                                                                                                        |
| 5. Inlet temperature (°F)                   | 539                        | Idem                   | Nominal inlet                                                                                          |
| 6. Control rod positions (by location)      | Bank D<br>5% inserted      | Idem                   | Nominal value                                                                                          |

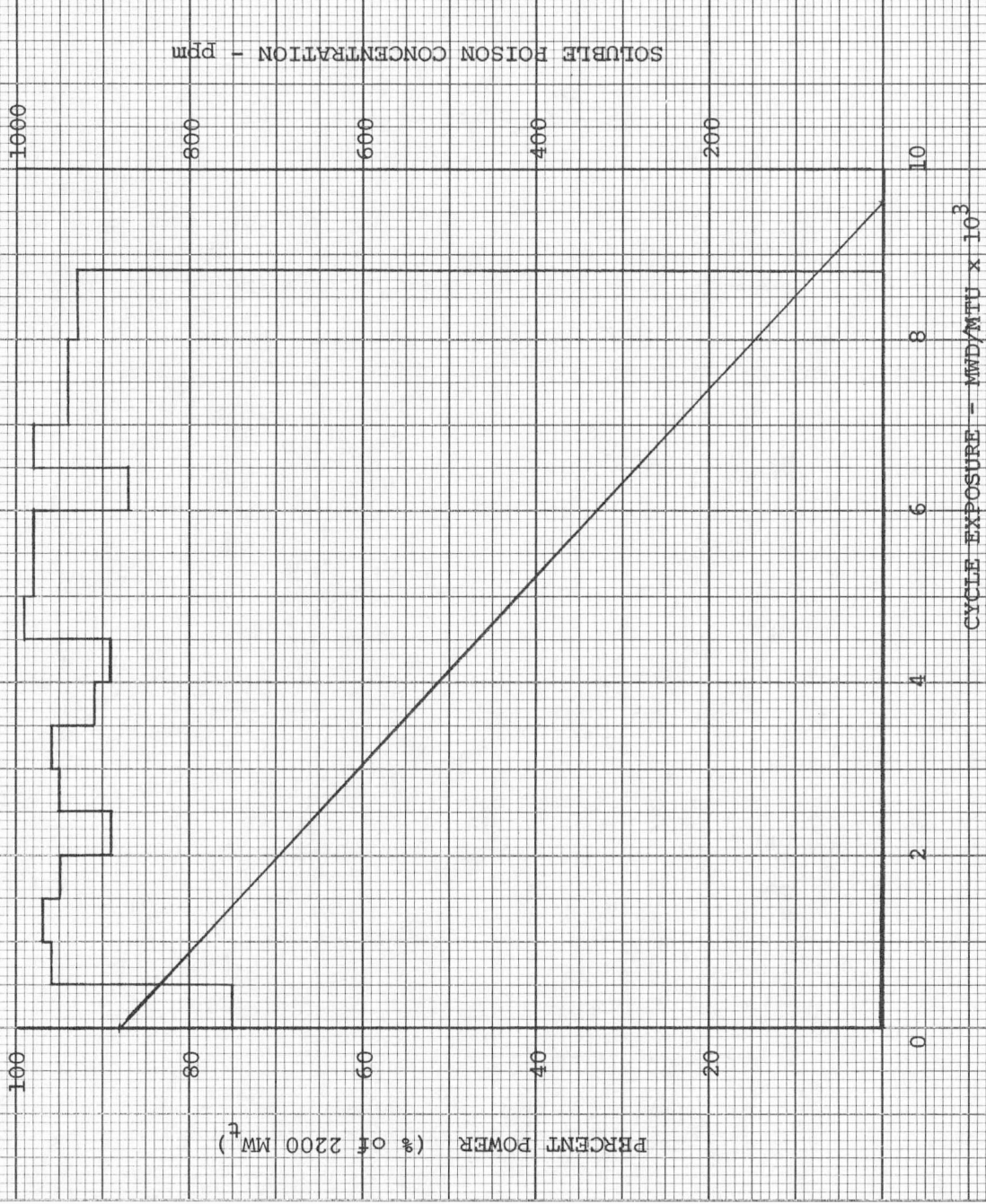
NOTE: Items 2,3,5 and 6 above are listed at cycle nominal values for use in EPRI-NODE.  
Item 4 is a nominal boron letdown curve for cycle 2.  
Actual values of items 1 through 6 are presented in Table 2.4, Part B for state point conditions.

Verified by: RR Date: 4/29/77

# Diagram 2.4-1

Turkey Point 3

Cycle 2



NOTE: The soluble poison curve is for the core condition of hot full power, all rods out, equilibrium xenon.

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 1 of 4

CYCLE: 3

## PART B - PWR STATEPOINT

Exposure 900 MWD/MTU (BOC)

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                       | VALUE                                   | SOURCE             | COMMENTS                            |
|---------------------------------------------------|-----------------------------------------|--------------------|-------------------------------------|
| <u>PWR Statepoint Data</u>                        |                                         |                    |                                     |
| 1. Core power (MWt)                               | 2189.                                   | NCCO log sheets    | 99.5%                               |
| 2. Total core flow<br>(10 <sup>6</sup> lbs/hr)    | 101.5                                   | Idem               | 100%                                |
| 3. System pressure (psia)                         | 2095.                                   | Idem               | none                                |
| 4. Soluble poison concentration<br>(ppm)          | 712.                                    | Daily water report | none                                |
| 5. Inlet temperature (°F)                         | 536.                                    | NCCO log sheets    | T <sub>avg</sub> = 563, ΔT = 55     |
| 6. Time at associated power<br>level (hrs)        | At 99% power<br>greater than<br>72 hrs. | Idem               | none                                |
| 7. Xenon condition                                | Equilibrium                             | Inferred           | none                                |
| 8. Control rod positions<br>(by location)         | Bank D @ 218 steps                      | NCCO Log Sheets    | 228 steps equals fully<br>withdrawn |
| 9. Inter-calibrated data from<br>incore traverses | See Diagram                             | FP&L Records       | Diagram #2.4.2 attached             |

Verified By: RPK Date: 4/29/77

Diagram 2.4.2

## Incore Power Distributions, Cycle 3

900 MWD/MTU

| 1 M 3  | 2 J 15 | 3 F 4  | 4 L 8  | 5 F 8  | 6 D 12 | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.2439 | 0.1793 | 0.4716 | 0.4255 | 0.4695 | 0.0000 | 0.2180 | 0.4566 | 0.3944 | 0.2358 |
| 0.4130 | 0.3216 | 0.7640 | 0.6801 | 0.7700 | 0.0000 | 0.3777 | 0.7534 | 0.6667 | 0.4054 |
| 0.5145 | 0.4034 | 0.9101 | 0.8189 | 0.9297 | 0.0000 | 0.4810 | 0.9263 | 0.8301 | 0.5301 |
| 0.6391 | 0.5009 | 1.0758 | 0.9774 | 1.0893 | 0.0000 | 0.6031 | 1.0729 | 0.9954 | 0.6353 |
| 0.7264 | 0.5749 | 1.1869 | 1.0504 | 1.1832 | 0.0000 | 0.6933 | 1.1668 | 1.0931 | 0.7328 |
| 0.7798 | 0.6139 | 1.2414 | 1.0985 | 1.2302 | 0.0000 | 0.7459 | 1.2138 | 1.1551 | 0.7815 |
| 0.8029 | 0.6275 | 1.2707 | 1.1127 | 1.2433 | 0.0000 | 0.7666 | 1.2251 | 1.1832 | 0.8068 |
| 0.7940 | 0.6178 | 1.2414 | 1.0878 | 1.2114 | 0.0000 | 0.7553 | 1.2175 | 1.1832 | 0.7912 |
| 0.8350 | 0.6470 | 1.2960 | 1.1020 | 1.2358 | 0.0000 | 0.7910 | 1.2232 | 1.2208 | 0.8283 |
| 0.8617 | 0.6753 | 1.3350 | 1.1323 | 1.2621 | 0.0000 | 0.8230 | 1.2608 | 1.2809 | 0.8594 |
| 0.8759 | 0.6918 | 1.3486 | 1.1412 | 1.2865 | 0.0000 | 0.8324 | 1.2701 | 1.2997 | 0.8750 |
| 0.8795 | 0.6957 | 1.3486 | 1.1465 | 1.2865 | 0.0000 | 0.8361 | 1.2701 | 1.2997 | 0.8789 |
| 0.8635 | 0.6860 | 1.3194 | 1.1287 | 1.2678 | 0.0000 | 0.8248 | 1.2570 | 1.2678 | 0.8594 |
| 0.8528 | 0.6763 | 1.3155 | 1.0842 | 1.2302 | 0.0000 | 0.8098 | 1.2044 | 1.2396 | 0.8497 |
| 0.8866 | 0.6996 | 1.3408 | 1.1358 | 1.2546 | 0.0000 | 0.8418 | 1.2589 | 1.3053 | 0.8789 |
| 0.8973 | 0.7113 | 1.3389 | 1.1341 | 1.2621 | 0.0000 | 0.8474 | 1.2589 | 1.3053 | 0.8906 |
| 0.8937 | 0.7016 | 1.3350 | 1.1180 | 1.2584 | 0.0000 | 0.8474 | 1.2420 | 1.2771 | 0.8867 |
| 0.8670 | 0.6763 | 1.3096 | 1.0860 | 1.2246 | 0.0000 | 0.8192 | 1.2138 | 1.2734 | 0.8536 |
| 0.8332 | 0.6529 | 1.2707 | 1.0130 | 1.1645 | 0.0000 | 0.7910 | 1.1386 | 1.2396 | 0.8127 |
| 0.8599 | 0.6743 | 1.2999 | 1.0557 | 1.1870 | 0.0000 | 0.8248 | 1.1762 | 1.2678 | 0.8478 |
| 0.8635 | 0.6743 | 1.2862 | 1.0450 | 1.1795 | 0.0000 | 0.8286 | 1.1668 | 1.2678 | 0.8468 |
| 0.8456 | 0.6529 | 1.2609 | 1.0290 | 1.1494 | 0.0000 | 0.8004 | 1.1480 | 1.2490 | 0.8205 |
| 0.7958 | 0.6178 | 1.2063 | 0.9970 | 1.1119 | 0.0000 | 0.7440 | 1.1104 | 1.1870 | 0.7717 |
| 0.7192 | 0.5593 | 1.1245 | 0.8973 | 1.0236 | 0.0000 | 0.6689 | 1.0015 | 1.0799 | 0.6977 |
| 0.7103 | 0.5496 | 1.1245 | 0.9489 | 1.0555 | 0.0000 | 0.6595 | 1.0390 | 1.0799 | 0.6977 |
| 0.6409 | 0.5009 | 1.0465 | 0.8955 | 0.9804 | 0.0000 | 0.5843 | 0.9752 | 0.9973 | 0.6314 |
| 0.5181 | 0.3995 | 0.8711 | 0.7727 | 0.8358 | 0.0000 | 0.4660 | 0.8380 | 0.8301 | 0.5028 |
| 0.3400 | 0.2475 | 0.5788 | 0.5501 | 0.5728 | 0.0000 | 0.3025 | 0.6031 | 0.5447 | 0.3235 |
| 0.2119 | 0.1598 | 0.4229 | 0.3151 | 0.4508 | 0.0000 | 0.1616 | 0.4340 | 0.3944 | 0.2358 |

THIMBLE AVERAGE

|        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.7406 | 0.5793 | 1.1605 | 0.9860 | 1.1052 | 1.0000 | 0.6984 | 1.0956 | 1.1076 | 0.7333 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

AXIAL PEAK

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.212 | 1.228 | 1.162 | 1.163 | 1.164 | 0.000 | 1.213 | 1.159 | 1.178 | 1.215 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

AVERAGE \* PEAK

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.897 | 0.711 | 1.349 | 1.147 | 1.287 | 0.000 | 0.847 | 1.270 | 1.305 | 0.891 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4.2

## Incore Power Distributions, Cycle 3

900 MWD/MTU

|                 | 11 L 9 | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1               | 0.4622 | 0.2865 | 0.4326 | 0.4095 | 0.4611 | 0.4152 | 0.4553 | 0.1954 | 0.5017 |
| 2               | 0.7628 | 0.5203 | 0.6373 | 0.6391 | 0.7638 | 0.6313 | 0.6288 | 0.3081 | 0.8023 |
| 3               | 0.9225 | 0.6665 | 0.7523 | 0.7264 | 0.9169 | 0.7534 | 0.7594 | 0.3683 | 0.9639 |
| 4               | 1.0879 | 0.8322 | 0.9101 | 0.9364 | 1.0664 | 0.9038 | 0.9273 | 0.4678 | 1.1405 |
| 5               | 1.1762 | 0.9491 | 0.9978 | 1.0468 | 1.1536 | 1.0015 | 1.0952 | 0.5280 | 1.2438 |
| 6               | 1.2269 | 1.0232 | 1.0563 | 1.1056 | 1.1910 | 1.0541 | 1.1978 | 0.5562 | 1.3002 |
| 7               | 1.2420 | 1.0563 | 1.0855 | 1.1358 | 1.2035 | 1.0823 | 1.2464 | 0.5656 | 1.3134 |
| 8               | 1.2326 | 1.0368 | 1.0368 | 1.0807 | 1.1964 | 1.0541 | 1.2669 | 0.5468 | 1.3002 |
| 9               | 1.2514 | 1.0719 | 1.0855 | 1.1643 | 1.2177 | 1.0823 | 1.2165 | 0.5693 | 1.3190 |
| 10              | 1.2833 | 1.1243 | 1.1342 | 1.2088 | 1.2539 | 1.1180 | 1.3471 | 0.5900 | 1.3622 |
| 11              | 1.2983 | 1.1479 | 1.1342 | 1.2427 | 1.2622 | 1.1180 | 1.3900 | 0.6031 | 1.3754 |
| 12              | 1.3021 | 1.1596 | 1.1342 | 1.2373 | 1.2605 | 1.1180 | 1.3975 | 0.6031 | 1.3716 |
| 13              | 1.2833 | 1.1342 | 1.1147 | 1.2017 | 1.2355 | 1.1104 | 1.3938 | 0.5937 | 1.3397 |
| 14              | 1.2420 | 1.1342 | 1.1147 | 1.1946 | 1.1892 | 1.0823 | 1.3378 | 0.5806 | 1.2946 |
| 15              | 1.2720 | 1.1752 | 1.1537 | 1.2249 | 1.2462 | 1.1367 | 1.3844 | 0.6031 | 1.3397 |
| 16              | 1.2664 | 1.1869 | 1.1732 | 1.2320 | 1.2462 | 1.1461 | 1.4180 | 0.6069 | 1.3453 |
| 17              | 1.2608 | 1.1752 | 1.1635 | 1.2249 | 1.2373 | 1.1349 | 1.4217 | 0.6125 | 1.3359 |
| 18              | 1.2420 | 1.1342 | 1.1245 | 1.1910 | 1.2195 | 1.1048 | 1.4292 | 0.5975 | 1.3040 |
| 19              | 1.1950 | 1.0875 | 1.0758 | 1.1803 | 1.1483 | 1.0409 | 1.2109 | 0.5749 | 1.2344 |
| 20              | 1.2232 | 1.1225 | 1.1050 | 1.2106 | 1.1857 | 1.0729 | 1.3546 | 0.5956 | 1.2626 |
| 21              | 1.2138 | 1.1206 | 1.1011 | 1.2071 | 1.1714 | 1.0729 | 1.3583 | 0.5937 | 1.2532 |
| 22              | 1.1856 | 1.0875 | 1.0699 | 1.1803 | 1.1519 | 1.0541 | 1.3378 | 0.5712 | 1.2288 |
| 23              | 1.1386 | 1.0270 | 1.0271 | 1.1145 | 1.1163 | 1.0071 | 1.2930 | 0.5468 | 1.1875 |
| 24              | 1.0541 | 0.9296 | 0.9588 | 1.0308 | 1.0130 | 0.9132 | 1.0859 | 0.4960 | 1.0841 |
| 25              | 1.0635 | 0.9257 | 0.9783 | 1.0148 | 1.0504 | 0.9507 | 1.1531 | 0.5017 | 1.1086 |
| 26              | 0.9883 | 0.8361 | 0.9101 | 0.9240 | 0.9881 | 0.8850 | 1.0766 | 0.4528 | 1.0372 |
| 27              | 0.8380 | 0.6568 | 0.7542 | 0.7495 | 0.8456 | 0.7440 | 0.9310 | 0.3683 | 0.8868 |
| 28              | 0.5843 | 0.4326 | 0.4814 | 0.5056 | 0.6160 | 0.5186 | 0.6829 | 0.2499 | 0.6182 |
| 29              | 0.3871 | 0.3352 | 0.3060 | 0.3169 | 0.4611 | 0.3175 | 0.3769 | 0.1466 | 0.4077 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
|                 | 1.1165 | 0.9657 | 0.9871 | 1.0455 | 1.0931 | 0.9735 | 1.1699 | 0.5151 | 1.1717 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
|                 | 1.166  | 1.228  | 1.189  | 1.189  | 1.155  | 1.177  | 1.222  | 1.189  | 1.174  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
|                 | 1.302  | 1.187  | 1.173  | 1.243  | 1.262  | 1.146  | 1.429  | 0.613  | 1.375  |

Diagram 2.4.2

## Incore Power Distributions, Cycle 3

900 MWD/MTU

| 21 F11          | 22 N 5 | 23 J10 | 24 J 5 | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.4580          | 0.3831 | 0.4695 | 0.4166 | 0.3475 | 0.4609 | 0.2348 | 0.5280 | 0.4034 | 0.2687 |
| 0.7113          | 0.6555 | 0.6949 | 0.6391 | 0.5390 | 0.6138 | 0.4132 | 0.8377 | 0.6334 | 0.3711 |
| 0.8283          | 0.8245 | 0.8452 | 0.8795 | 0.6480 | 0.7594 | 0.5240 | 0.9609 | 0.7601 | 0.4537 |
| 0.9998          | 1.0104 | 1.0048 | 0.9774 | 0.7794 | 0.9236 | 0.6480 | 1.1456 | 0.9237 | 0.6045 |
| 1.0972          | 1.1438 | 1.0987 | 1.1358 | 0.8827 | 1.0243 | 0.7475 | 1.2426 | 1.0193 | 0.6881 |
| 1.1381          | 1.2170 | 1.1457 | 1.2071 | 0.9391 | 1.0803 | 0.8114 | 1.2911 | 1.0719 | 0.7407 |
| 1.1557          | 1.2584 | 1.1663 | 1.2177 | 0.9766 | 1.1139 | 0.8170 | 1.3191 | 1.0914 | 0.7594 |
| 1.1011          | 1.2377 | 1.1175 | 1.2284 | 0.9729 | 1.1083 | 0.8114 | 1.2837 | 1.0329 | 0.7594 |
| 1.1752          | 1.2753 | 1.1494 | 1.2444 | 0.9973 | 1.1456 | 0.8452 | 1.3229 | 1.0914 | 0.7818 |
| 1.2141          | 1.3598 | 1.1983 | 1.3121 | 1.0518 | 1.2146 | 0.8827 | 1.3620 | 1.1206 | 0.8181 |
| 1.2219          | 1.3598 | 1.2246 | 1.2996 | 1.0724 | 1.2445 | 0.8996 | 1.3788 | 1.1303 | 0.8877 |
| 1.2141          | 1.3654 | 1.2246 | 1.3068 | 1.0743 | 1.2482 | 0.9015 | 1.3788 | 1.1362 | 0.8377 |
| 1.1791          | 1.3410 | 1.1832 | 1.2961 | 1.0518 | 1.2202 | 0.8865 | 1.3415 | 1.1050 | 0.8284 |
| 1.1791          | 1.3316 | 1.1419 | 1.2373 | 1.0330 | 1.1587 | 0.8733 | 1.3042 | 1.1109 | 0.8177 |
| 1.2024          | 1.3786 | 1.1739 | 1.2658 | 1.0706 | 1.2296 | 0.8996 | 1.3322 | 1.1440 | 0.8477 |
| 1.2024          | 1.3974 | 1.1795 | 1.2640 | 1.0799 | 1.2389 | 0.9034 | 1.3266 | 1.1557 | 0.8581 |
| 1.1858          | 1.3898 | 1.1739 | 1.2622 | 1.0762 | 1.2389 | 0.9015 | 1.3191 | 1.1498 | 0.8581 |
| 1.1596          | 1.3542 | 1.1419 | 1.2605 | 1.0518 | 1.2146 | 0.8696 | 1.2874 | 1.1050 | 0.8377 |
| 1.1206          | 1.3091 | 1.0799 | 1.1999 | 1.0104 | 1.1344 | 0.8358 | 1.2464 | 1.0621 | 0.7811 |
| 1.1752          | 1.3485 | 1.1175 | 1.2373 | 1.0424 | 1.1922 | 0.8602 | 1.2837 | 1.0855 | 0.8221 |
| 1.1654          | 1.3485 | 1.1175 | 1.2266 | 1.0330 | 1.1922 | 0.8621 | 1.2762 | 1.0719 | 0.8281 |
| 1.1245          | 1.3466 | 1.0987 | 1.2106 | 1.0104 | 1.1736 | 0.8414 | 1.2352 | 1.0426 | 0.8177 |
| 1.0719          | 1.2565 | 1.0518 | 1.1768 | 0.9597 | 1.1176 | 0.7907 | 1.2016 | 1.0037 | 0.7661 |
| 0.9842          | 1.1438 | 0.9579 | 1.0272 | 0.8640 | 1.0019 | 0.7231 | 1.0635 | 0.9257 | 0.6691 |
| 1.0076          | 1.1438 | 0.9766 | 1.0931 | 0.8640 | 1.0150 | 0.7099 | 1.1139 | 0.9452 | 0.6821 |
| 0.9452          | 1.0649 | 0.9297 | 1.0397 | 0.7982 | 0.9348 | 0.6386 | 1.0598 | 0.8965 | 0.6131 |
| 0.7990          | 0.8395 | 0.7794 | 0.8528 | 0.6574 | 0.7855 | 0.5109 | 0.8769 | 0.7503 | 0.5011 |
| 0.5262          | 0.5146 | 0.5165 | 0.5804 | 0.4320 | 0.5392 | 0.3193 | 0.6138 | 0.4970 | 0.3171 |
| 0.3313          | 0.3362 | 0.3287 | 0.4077 | 0.2723 | 0.3153 | 0.2160 | 0.4105 | 0.3118 | 0.2031 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 1.0458          | 1.1634 | 1.0317 | 1.1104 | 0.9028 | 1.0447 | 0.7483 | 1.1741 | 0.9793 | 0.7061 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.168           | 1.201  | 1.187  | 1.182  | 1.196  | 1.195  | 1.207  | 1.174  | 1.180  | 1.216  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.222           | 1.397  | 1.225  | 1.312  | 1.080  | 1.248  | 0.903  | 1.379  | 1.156  | 0.858  |

Diagram 2.4.2

Incore Power Distributions, Cycle 3

900 MWD/MTU

| 1 F 2           | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.2849          | 0.5020 | 0.3946 | 0.0000 | 0.2912 | 0.2046 | 0.0000 | 0.5019 | 0.4627 | 0.5206 |
| 0.5341          | 0.6890 | 0.6708 | 0.0000 | 0.4115 | 0.3216 | 0.0000 | 0.5747 | 0.5429 | 0.6647 |
| 0.6409          | 0.8581 | 0.8305 | 0.0000 | 0.5223 | 0.3937 | 0.0000 | 0.7911 | 0.7351 | 0.8284 |
| 0.8367          | 0.9934 | 0.9996 | 0.0000 | 0.6482 | 0.4814 | 0.0000 | 0.8844 | 0.8620 | 1.0243 |
| 0.9169          | 1.0967 | 1.1029 | 0.0000 | 0.7365 | 0.5398 | 0.0000 | 1.0187 | 1.0019 | 1.1093 |
| 0.9952          | 1.1501 | 1.1781 | 0.0000 | 0.7854 | 0.5749 | 0.0000 | 1.0784 | 1.0822 | 1.1549 |
| 1.0308          | 1.1661 | 1.1969 | 0.0000 | 0.8061 | 0.5886 | 0.0000 | 1.1083 | 1.1139 | 1.1624 |
| 1.0397          | 1.1608 | 1.1912 | 0.0000 | 0.8023 | 0.5691 | 0.0000 | 1.1176 | 1.1232 | 1.0467 |
| 1.0237          | 1.1483 | 1.2251 | 0.0000 | 0.8342 | 0.5886 | 0.0000 | 1.0243 | 1.0411 | 1.1549 |
| 1.1109          | 1.2053 | 1.2626 | 0.0000 | 0.8681 | 0.6100 | 0.0000 | 1.1176 | 1.1419 | 1.1922 |
| 1.1394          | 1.2266 | 1.2908 | 0.0000 | 0.8850 | 0.6217 | 0.0000 | 1.1344 | 1.1605 | 1.2072 |
| 1.1483          | 1.2320 | 1.3002 | 0.0000 | 0.8868 | 0.6217 | 0.0000 | 1.1400 | 1.1717 | 1.2090 |
| 1.1376          | 1.2088 | 1.2777 | 0.0000 | 0.8699 | 0.6139 | 0.0000 | 1.1400 | 1.1736 | 1.1736 |
| 1.0130          | 1.0789 | 1.2438 | 0.0000 | 0.8474 | 0.5983 | 0.0000 | 1.0915 | 1.1157 | 1.1643 |
| 1.1394          | 1.1714 | 1.3002 | 0.0000 | 0.8812 | 0.6158 | 0.0000 | 1.1344 | 1.1810 | 1.2090 |
| 1.1625          | 1.1714 | 1.3096 | 0.0000 | 0.8925 | 0.6217 | 0.0000 | 1.1381 | 1.1848 | 1.2090 |
| 1.1661          | 1.1643 | 1.3058 | 0.0000 | 0.8906 | 0.6217 | 0.0000 | 1.1381 | 1.1848 | 1.1922 |
| 1.1536          | 1.1447 | 1.2852 | 0.0000 | 0.8681 | 0.6139 | 0.0000 | 1.1232 | 1.1717 | 1.1568 |
| 1.0130          | 1.0753 | 1.2119 | 0.0000 | 0.8211 | 0.5886 | 0.0000 | 1.0337 | 1.0990 | 1.1157 |
| 1.1216          | 1.1252 | 1.2589 | 0.0000 | 0.8493 | 0.6158 | 0.0000 | 1.0803 | 1.1288 | 1.1456 |
| 1.1305          | 1.1341 | 1.2589 | 0.0000 | 0.8493 | 0.6139 | 0.0000 | 1.0822 | 1.1307 | 1.1419 |
| 1.1145          | 1.1091 | 1.2251 | 0.0000 | 0.8305 | 0.5944 | 0.0000 | 1.0691 | 1.1176 | 1.1213 |
| 1.0593          | 1.0628 | 1.1781 | 0.0000 | 0.7779 | 0.5613 | 0.0000 | 1.0542 | 1.0784 | 1.0710 |
| 0.8795          | 0.9204 | 1.0653 | 0.0000 | 0.7084 | 0.5009 | 0.0000 | 0.8713 | 0.8956 | 0.9851 |
| 0.9525          | 0.9827 | 1.0898 | 0.0000 | 0.7140 | 0.5106 | 0.0000 | 0.9516 | 0.9926 | 0.9982 |
| 0.8795          | 0.9258 | 0.9996 | 0.0000 | 0.6426 | 0.4658 | 0.0000 | 0.9068 | 0.9572 | 0.9310 |
| 0.7317          | 0.7994 | 0.8399 | 0.0000 | 0.5148 | 0.3639 | 0.0000 | 0.7818 | 0.8452 | 0.7687 |
| 0.5341          | 0.6017 | 0.5862 | 0.0000 | 0.3420 | 0.2475 | 0.0000 | 0.5579 | 0.5896 | 0.5094 |
| 0.3561          | 0.3632 | 0.3889 | 0.0000 | 0.2010 | 0.1501 | 0.0000 | 0.3508 | 0.3321 | 0.3340 |
| THINBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.9616          | 1.0370 | 1.1099 | 1.0000 | 0.7404 | 0.5306 | 1.0000 | 0.9846 | 1.0079 | 1.0300 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.213           | 1.188  | 1.180  | 0.000  | 1.205  | 1.172  | 0.000  | 1.158  | 1.176  | 1.164  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.166           | 1.232  | 1.310  | 0.000  | 0.892  | 0.622  | 0.000  | 1.140  | 1.185  | 1.200  |

Diagram 2.4.2

## Incore Power Distributions, Cycle 3

900 MWD/MTU

|    | 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| 1  | 0.0000 | 0.3569 | 0.0000 | 0.3169 | 0.4179 | 0.3756 | 0.5616 | 0.4629 | 0.4695 | 0. |
| 2  | 0.0000 | 0.6198 | 0.0000 | 0.5857 | 0.5523 | 0.5822 | 0.8265 | 0.7673 | 0.7794 | 0. |
| 3  | 0.0000 | 0.8076 | 0.0000 | 0.6712 | 0.6885 | 0.7287 | 0.9348 | 0.9347 | 0.9428 | 0. |
| 4  | 0.0000 | 0.9954 | 0.0000 | 0.8973 | 0.8377 | 0.8790 | 1.1381 | 1.1038 | 1.1175 | 0. |
| 5  | 0.0000 | 1.1269 | 0.0000 | 0.9364 | 0.9497 | 0.9766 | 1.2314 | 1.2035 | 1.2020 | 0. |
| 6  | 0.0000 | 1.2058 | 0.0000 | 1.0077 | 1.0225 | 1.0274 | 1.2818 | 1.2516 | 1.2490 | 0. |
| 7  | 0.0000 | 1.2490 | 0.0000 | 1.0433 | 1.0243 | 1.0649 | 1.3042 | 1.2729 | 1.2771 | 0. |
| 8  | 0.0000 | 1.2396 | 0.0000 | 1.0628 | 1.0075 | 1.0518 | 1.2128 | 1.2551 | 1.2490 | 0. |
| 9  | 0.0000 | 1.2865 | 0.0000 | 1.0753 | 1.0243 | 1.0612 | 1.3154 | 1.2818 | 1.3053 | 0. |
| 10 | 0.0000 | 1.3354 | 0.0000 | 1.1163 | 1.0486 | 1.1081 | 1.3471 | 1.3157 | 1.3504 | 0. |
| 11 | 0.0000 | 1.3617 | 0.0000 | 1.1269 | 1.0616 | 1.1250 | 1.3658 | 1.3335 | 1.3617 | 0. |
| 12 | 0.0000 | 1.3748 | 0.0000 | 1.1358 | 1.0654 | 1.1269 | 1.3714 | 1.3352 | 1.3523 | 0. |
| 13 | 0.0000 | 1.3673 | 0.0000 | 1.1394 | 1.0654 | 1.1081 | 1.3471 | 1.3246 | 1.3185 | 0. |
| 14 | 0.0000 | 1.3485 | 0.0000 | 1.0397 | 1.0874 | 1.0893 | 1.3583 | 1.2961 | 1.3185 | 0. |
| 15 | 0.0000 | 1.3861 | 0.0000 | 1.1287 | 1.0971 | 1.1269 | 1.3788 | 1.3406 | 1.3654 | 0. |
| 16 | 0.0000 | 1.3955 | 0.0000 | 1.1465 | 1.1008 | 1.1419 | 1.3826 | 1.3530 | 1.3692 | 0. |
| 17 | 0.0000 | 1.3898 | 0.0000 | 1.1447 | 1.0808 | 1.1325 | 1.3786 | 1.3513 | 1.3560 | 0. |
| 18 | 0.0000 | 1.3617 | 0.0000 | 1.1376 | 1.0766 | 1.1081 | 1.3471 | 1.3192 | 1.3147 | 0. |
| 19 | 0.0000 | 1.3147 | 0.0000 | 1.0397 | 1.0057 | 1.0330 | 1.2930 | 1.2498 | 1.2771 | 0. |
| 20 | 0.0000 | 1.3635 | 0.0000 | 1.0967 | 1.0598 | 1.0931 | 1.3247 | 1.2889 | 1.2959 | 0. |
| 21 | 0.0000 | 1.3673 | 0.0000 | 1.1020 | 1.0616 | 1.0856 | 1.3210 | 1.2836 | 1.2734 | 0. |
| 22 | 0.0000 | 1.3297 | 0.0000 | 1.0842 | 1.0560 | 1.0612 | 1.2874 | 1.2605 | 1.2546 | 0. |
| 23 | 0.0000 | 1.2584 | 0.0000 | 1.0433 | 0.9870 | 0.9954 | 1.2314 | 1.2142 | 1.2058 | 0. |
| 24 | 0.0000 | 1.1419 | 0.0000 | 0.9614 | 0.8844 | 0.9015 | 1.1419 | 1.1216 | 1.1269 | 0. |
| 25 | 0.0000 | 1.1457 | 0.0000 | 0.9471 | 0.9105 | 0.9485 | 1.1400 | 1.1536 | 1.1307 | 0. |
| 26 | 0.0000 | 1.0424 | 0.0000 | 0.9186 | 0.8564 | 0.8921 | 1.0542 | 1.0717 | 1.0518 | 0. |
| 27 | 0.0000 | 0.8452 | 0.0000 | 0.7281 | 0.7258 | 0.7419 | 0.8769 | 0.9080 | 0.8921 | 0. |
| 28 | 0.0000 | 0.5447 | 0.0000 | 0.4931 | 0.5168 | 0.4977 | 0.5971 | 0.6694 | 0.6010 | 0. |
| 29 | 0.0000 | 0.3756 | 0.0000 | 0.3543 | 0.3060 | 0.3005 | 0.4105 | 0.4415 | 0.4226 | 0. |

|                 |        |        |        |        |        |        |        |        |        |   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
| THIMBLE AVERAGE | 1.0000 | 1.1632 | 1.0000 | 0.9695 | 0.9345 | 0.9652 | 1.1184 | 1.1683 | 1.1709 | 1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|

|            |       |       |       |       |       |       |       |       |       |   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| AXIAL PEAK | 0.000 | 1.200 | 0.000 | 1.183 | 1.178 | 1.183 | 1.163 | 1.158 | 1.169 | 0 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|

|                |       |       |       |       |       |       |       |       |       |   |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| AVERAGE * PEAK | 0.000 | 1.395 | 0.000 | 1.147 | 1.101 | 1.142 | 1.383 | 1.353 | 1.369 | 0 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 2 of 4

CYCLE: 3

## PART B - PWR STATEPOINT

Rev. 0 Date: 4/5/77

Exposure 4150 MWD/MTU

| ITEM (Unit)                                       | VALUE                                    | SOURCE             | COMMENTS                            |
|---------------------------------------------------|------------------------------------------|--------------------|-------------------------------------|
| <u>PWR Statepoint Data</u>                        |                                          |                    |                                     |
| 1. Core power (MWt)                               | 2200.                                    | NCCO log sheets    | 100%                                |
| 2. Total core flow<br>(10 <sup>6</sup> lbs/hr)    | 101.5                                    | Idem               | 100%                                |
| 3. System pressure (psia)                         | 2100.                                    | Idem               | none                                |
| 4. Soluble poison concentration<br>(ppm)          | 423.                                     | Daily water report | none                                |
| 5. Inlet temperature (°F)                         | 537.                                     | NCCO log sheets    | T <sub>avg</sub> = 564, ΔT = 55     |
| 6. Time at associated power<br>level (hrs)        | At 100% power<br>greater than<br>72 hrs. | Idem               | none                                |
| 7. Xenon condition                                | Equilibrium                              | Inferred           | none                                |
| 8. Control rod positions<br>(by location)         | Bank D at<br>226 steps                   | NCCO log sheets    | 228 steps equals fully<br>withdrawn |
| 9. Inter-calibrated data from<br>incore traverses | See diagram                              | FP&L Records       | Diagram #2.4.3 attached             |

Verified By: RTY Date: 4/29/77

Diagram 2.4.3

## Incore Power Distributions, Cycle 3

4150 MWD/MTU

| 1 M 3           | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.2748          | 0.2302 | 0.5373 | 0.5322 | 0.0000 | 0.0000 | 0.2540 | 0.5136 | 0.0000 | 0.2805 |
| 0.4430          | 0.3743 | 0.8170 | 0.7562 | 0.0000 | 0.0000 | 0.4108 | 0.8173 | 0.0000 | 0.4608 |
| 0.5551          | 0.4603 | 0.9628 | 0.8907 | 0.0000 | 0.0000 | 0.5301 | 0.9743 | 0.0000 | 0.5670 |
| 0.6579          | 0.5524 | 1.1026 | 1.0083 | 0.0000 | 0.0000 | 0.6375 | 1.0937 | 0.0000 | 0.6812 |
| 0.7383          | 0.6145 | 1.1865 | 1.0700 | 0.0000 | 0.0000 | 0.7159 | 1.1705 | 0.0000 | 0.7553 |
| 0.7701          | 0.6445 | 1.2245 | 1.0924 | 0.0000 | 0.0000 | 0.7517 | 1.1961 | 0.0000 | 0.7914 |
| 0.7794          | 0.6465 | 1.2304 | 1.0961 | 0.0000 | 0.0000 | 0.7602 | 1.1995 | 0.0000 | 0.8014 |
| 0.7514          | 0.6205 | 1.1825 | 1.0457 | 0.0000 | 0.0000 | 0.7432 | 1.1619 | 0.0000 | 0.7734 |
| 0.7794          | 0.6465 | 1.2105 | 1.0457 | 0.0000 | 0.0000 | 0.7517 | 1.1585 | 0.0000 | 0.7954 |
| 0.8075          | 0.6685 | 1.2464 | 1.0868 | 0.0000 | 0.0000 | 0.7858 | 1.1995 | 0.0000 | 0.8234 |
| 0.8131          | 0.6805 | 1.2604 | 1.0980 | 0.0000 | 0.0000 | 0.7943 | 1.2114 | 0.0000 | 0.8335 |
| 0.8168          | 0.6845 | 1.2624 | 1.1017 | 0.0000 | 0.0000 | 0.7943 | 1.2131 | 0.0000 | 0.8335 |
| 0.8019          | 0.6705 | 1.2364 | 1.0924 | 0.0000 | 0.0000 | 0.7824 | 1.1875 | 0.0000 | 0.8154 |
| 0.7925          | 0.6605 | 1.2364 | 1.0513 | 0.0000 | 0.0000 | 0.7602 | 1.1619 | 0.0000 | 0.8014 |
| 0.8131          | 0.6905 | 1.2704 | 1.1110 | 0.0000 | 0.0000 | 0.8028 | 1.2148 | 0.0000 | 0.8415 |
| 0.8449          | 0.7005 | 1.2764 | 1.1148 | 0.0000 | 0.0000 | 0.8131 | 1.2251 | 0.0000 | 0.8575 |
| 0.8523          | 0.7065 | 1.2844 | 1.1204 | 0.0000 | 0.0000 | 0.8199 | 1.2285 | 0.0000 | 0.8615 |
| 0.8355          | 0.6885 | 1.2764 | 1.1110 | 0.0000 | 0.0000 | 0.8028 | 1.2131 | 0.0000 | 0.8435 |
| 0.8075          | 0.6705 | 1.2564 | 1.0326 | 0.0000 | 0.0000 | 0.7687 | 1.1619 | 0.0000 | 0.8134 |
| 0.8542          | 0.7005 | 1.3103 | 1.0980 | 0.0000 | 0.0000 | 0.8233 | 1.2148 | 0.0000 | 0.8615 |
| 0.8729          | 0.7145 | 1.3263 | 1.1036 | 0.0000 | 0.0000 | 0.8523 | 1.2302 | 0.0000 | 0.8755 |
| 0.8766          | 0.7145 | 1.3263 | 1.1073 | 0.0000 | 0.0000 | 0.8523 | 1.2336 | 0.0000 | 0.8695 |
| 0.8542          | 0.6945 | 1.3063 | 1.1073 | 0.0000 | 0.0000 | 0.8199 | 1.2217 | 0.0000 | 0.8455 |
| 0.7888          | 0.6505 | 1.2364 | 1.0177 | 0.0000 | 0.0000 | 0.7517 | 1.1534 | 0.0000 | 0.7914 |
| 0.8168          | 0.6685 | 1.2904 | 1.1073 | 0.0000 | 0.0000 | 0.7721 | 1.1995 | 0.0000 | 0.8174 |
| 0.7607          | 0.6285 | 1.2424 | 1.0924 | 0.0000 | 0.0000 | 0.7261 | 1.1619 | 0.0000 | 0.7673 |
| 0.6299          | 0.5204 | 1.0667 | 0.9616 | 0.0000 | 0.0000 | 0.6068 | 1.0169 | 0.0000 | 0.6411 |
| 0.4150          | 0.3503 | 0.7471 | 0.6722 | 0.0000 | 0.0000 | 0.4023 | 0.7098 | 0.0000 | 0.4308 |
| 0.2935          | 0.2602 | 0.5673 | 0.4295 | 0.0000 | 0.0000 | 0.3085 | 0.5818 | 0.0000 | 0.3206 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.7433          | 0.6167 | 1.1760 | 1.0240 | 1.0000 | 1.0000 | 0.7183 | 1.1242 | 1.0000 | 0.7554 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.179           | 1.159  | 1.128  | 1.094  | 0.000  | 0.000  | 1.186  | 1.097  | 0.000  | 1.159  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 0.877           | 0.715  | 1.326  | 1.120  | 0.000  | 0.000  | 0.852  | 1.234  | 0.000  | 0.876  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4.3  
Incore Power Distributions, Cycle 3

4150 MWD/MTU

| 11 L 9          | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.5141          | 0.3496 | 0.4889 | 0.5079 | 0.5882 | 0.5061 | 0.5381 | 0.2408 | 0.5710 | 0.6867 |
| 0.8130          | 0.5693 | 0.6992 | 0.6666 | 0.7936 | 0.7198 | 0.7255 | 0.3467 | 0.8182 | 0.8457 |
| 0.9752          | 0.7131 | 0.8194 | 0.8123 | 0.9467 | 0.8394 | 0.8568 | 0.4424 | 1.0023 | 0.9954 |
| 1.1033          | 0.8489 | 0.9697 | 0.9616 | 1.0643 | 0.9762 | 1.0349 | 0.5312 | 1.1250 | 1.1264 |
| 1.1836          | 0.9488 | 1.0599 | 1.0681 | 1.1446 | 1.0480 | 1.1286 | 0.5909 | 1.2187 | 1.2068 |
| 1.2058          | 0.9987 | 1.0939 | 1.1148 | 1.1633 | 1.0822 | 1.1717 | 0.6166 | 1.2528 | 1.2330 |
| 1.2092          | 1.0087 | 1.1099 | 1.1316 | 1.1670 | 1.0959 | 1.1905 | 0.6183 | 1.2528 | 1.2386 |
| 1.1716          | 0.9848 | 1.0398 | 1.0868 | 1.1484 | 1.0361 | 1.1380 | 0.5909 | 1.2255 | 1.2012 |
| 1.1716          | 0.9987 | 1.0739 | 1.1054 | 1.1484 | 1.0634 | 1.1942 | 0.5909 | 1.2119 | 1.2106 |
| 1.2058          | 1.0347 | 1.1200 | 1.1540 | 1.1857 | 1.1044 | 1.2542 | 0.6131 | 1.2613 | 1.2517 |
| 1.2092          | 1.0387 | 1.1200 | 1.1801 | 1.1857 | 1.1044 | 1.2786 | 0.6302 | 1.2750 | 1.2667 |
| 1.2161          | 1.0427 | 1.1200 | 1.1801 | 1.2044 | 1.1044 | 1.2842 | 0.6302 | 1.2750 | 1.2760 |
| 1.1973          | 1.0327 | 1.0999 | 1.1614 | 1.1633 | 1.0788 | 1.2317 | 0.6200 | 1.2528 | 1.2480 |
| 1.1716          | 1.0307 | 1.0899 | 1.1241 | 1.1204 | 1.0754 | 1.2167 | 0.5961 | 1.2102 | 1.2293 |
| 1.2109          | 1.0826 | 1.1460 | 1.1801 | 1.1857 | 1.1301 | 1.2655 | 0.6319 | 1.2699 | 1.3004 |
| 1.2161          | 1.0986 | 1.1761 | 1.1895 | 1.1951 | 1.1386 | 1.2992 | 0.6422 | 1.2869 | 1.3041 |
| 1.2229          | 1.0986 | 1.1801 | 1.1895 | 1.1951 | 1.1386 | 1.3067 | 0.6524 | 1.2869 | 1.2948 |
| 1.2229          | 1.0726 | 1.1500 | 1.1801 | 1.1857 | 1.1198 | 1.2917 | 0.6456 | 1.2784 | 1.2667 |
| 1.1887          | 1.0427 | 1.1039 | 1.1372 | 1.1204 | 1.0788 | 1.2599 | 0.6080 | 1.2102 | 1.2199 |
| 1.2451          | 1.0926 | 1.1640 | 1.2175 | 1.1857 | 1.1335 | 1.3161 | 0.6541 | 1.2818 | 1.2854 |
| 1.2485          | 1.1126 | 1.1781 | 1.2399 | 1.2007 | 1.1472 | 1.3255 | 0.6661 | 1.2869 | 1.2948 |
| 1.2519          | 1.1126 | 1.1761 | 1.2436 | 1.2025 | 1.1506 | 1.3255 | 0.6644 | 1.2937 | 1.2968 |
| 1.2348          | 1.0846 | 1.1540 | 1.2212 | 1.2007 | 1.1335 | 1.3030 | 0.6473 | 1.2920 | 1.2854 |
| 1.1631          | 1.0287 | 1.0899 | 1.1148 | 1.1204 | 1.0531 | 1.2167 | 0.5858 | 1.1761 | 1.2012 |
| 1.2143          | 1.0487 | 1.1620 | 1.1801 | 1.1913 | 1.1215 | 1.2505 | 0.6302 | 1.2613 | 1.2573 |
| 1.1716          | 0.9887 | 1.1400 | 1.1334 | 1.1577 | 1.0873 | 1.1792 | 0.6029 | 1.2358 | 1.2106 |
| 1.0265          | 0.8290 | 0.9537 | 0.9654 | 1.0177 | 0.9335 | 0.9880 | 0.5141 | 1.0909 | 1.0422 |
| 0.7276          | 0.5493 | 0.6491 | 0.6666 | 0.7376 | 0.6343 | 0.6506 | 0.3570 | 0.7670 | 0.7428 |
| 0.5739          | 0.4295 | 0.4247 | 0.4332 | 0.5882 | 0.4377 | 0.4631 | 0.2152 | 0.5454 | 0.5931 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 1.1329          | 0.9601 | 1.0463 | 1.0741 | 1.1043 | 1.0286 | 1.1494 | 0.5767 | 1.1770 | 1.1775 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.105           | 1.159  | 1.128  | 1.158  | 1.091  | 1.119  | 1.153  | 1.155  | 1.099  | 1.107  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.252           | 1.113  | 1.180  | 1.244  | 1.204  | 1.151  | 1.325  | 0.666  | 1.294  | 1.304  |

Diagram 2.4.3

## Incore Power Distributions, Cycle 3

| 4150 MWD/MTU    |        |        |        |        |        |        |        |        |       |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 21 F11          | 22 N 5 | 23 J10 | 24 J 5 | 25 R 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L1 |
| 0.5164          | 0.0000 | 0.0000 | 0.5707 | 0.0000 | 0.5756 | 0.0000 | 0.5833 | 0.5044 | 0.348 |
| 0.7626          | 0.0000 | 0.0000 | 0.8233 | 0.0000 | 0.6974 | 0.0000 | 0.8629 | 0.7446 | 0.432 |
| 0.9227          | 0.0000 | 0.0000 | 0.9729 | 0.0000 | 0.8380 | 0.0000 | 0.9927 | 0.8446 | 0.522 |
| 1.0368          | 0.0000 | 0.0000 | 1.0946 | 0.0000 | 0.9974 | 0.0000 | 1.1326 | 1.0047 | 0.638 |
| 1.1168          | 0.0000 | 0.0000 | 1.1694 | 0.0000 | 1.0724 | 0.0000 | 1.2065 | 1.0828 | 0.704 |
| 1.1469          | 0.0000 | 0.0000 | 1.1881 | 0.0000 | 1.1043 | 0.0000 | 1.2384 | 1.1068 | 0.737 |
| 1.1509          | 0.0000 | 0.0000 | 1.1918 | 0.0000 | 1.1193 | 0.0000 | 1.2484 | 1.1088 | 0.741 |
| 1.0968          | 0.0000 | 0.0000 | 1.1526 | 0.0000 | 1.0818 | 0.0000 | 1.1925 | 1.0148 | 0.713 |
| 1.1308          | 0.0000 | 0.0000 | 1.1713 | 0.0000 | 1.1286 | 0.0000 | 1.2264 | 1.0808 | 0.741 |
| 1.1769          | 0.0000 | 0.0000 | 1.2218 | 0.0000 | 1.1755 | 0.0000 | 1.2664 | 1.1008 | 0.775 |
| 1.1609          | 0.0000 | 0.0000 | 1.2349 | 0.0000 | 1.1942 | 0.0000 | 1.2924 | 1.1048 | 0.782 |
| 1.1769          | 0.0000 | 0.0000 | 1.2349 | 0.0000 | 1.1980 | 0.0000 | 1.2864 | 1.1048 | 0.782 |
| 1.1469          | 0.0000 | 0.0000 | 1.2068 | 0.0000 | 1.1661 | 0.0000 | 1.2404 | 1.0648 | 0.769 |
| 1.1268          | 0.0000 | 0.0000 | 1.1694 | 0.0000 | 1.1380 | 0.0000 | 1.2264 | 1.1008 | 0.760 |
| 1.1769          | 0.0000 | 0.0000 | 1.2068 | 0.0000 | 1.1867 | 0.0000 | 1.2664 | 1.1348 | 0.797 |
| 1.1849          | 0.0000 | 0.0000 | 1.2068 | 0.0000 | 1.2055 | 0.0000 | 1.2784 | 1.1549 | 0.816 |
| 1.1849          | 0.0000 | 0.0000 | 1.2162 | 0.0000 | 1.2092 | 0.0000 | 1.2784 | 1.1549 | 0.816 |
| 1.1669          | 0.0000 | 0.0000 | 1.2237 | 0.0000 | 1.2036 | 0.0000 | 1.2624 | 1.1048 | 0.807 |
| 1.1368          | 0.0000 | 0.0000 | 1.1975 | 0.0000 | 1.1567 | 0.0000 | 1.2444 | 1.1048 | 0.779 |
| 1.2229          | 0.0000 | 0.0000 | 1.2536 | 0.0000 | 1.2224 | 0.0000 | 1.3183 | 1.1388 | 0.826 |
| 1.2389          | 0.0000 | 0.0000 | 1.2686 | 0.0000 | 1.2467 | 0.0000 | 1.3263 | 1.1449 | 0.840 |
| 1.2269          | 0.0000 | 0.0000 | 1.2723 | 0.0000 | 1.2505 | 0.0000 | 1.3183 | 1.1429 | 0.840 |
| 1.1949          | 0.0000 | 0.0000 | 1.2536 | 0.0000 | 1.2186 | 0.0000 | 1.2824 | 1.1048 | 0.826 |
| 1.1068          | 0.0000 | 0.0000 | 1.1787 | 0.0000 | 1.1193 | 0.0000 | 1.2225 | 1.0748 | 0.758 |
| 1.1809          | 0.0000 | 0.0000 | 1.2255 | 0.0000 | 1.1661 | 0.0000 | 1.2784 | 1.1088 | 0.782 |
| 1.1409          | 0.0000 | 0.0000 | 1.1787 | 0.0000 | 1.1230 | 0.0000 | 1.2264 | 1.0648 | 0.732 |
| 0.9967          | 0.0000 | 0.0000 | 1.0384 | 0.0000 | 0.9693 | 0.0000 | 1.0627 | 0.9047 | 0.610 |
| 0.6865          | 0.0000 | 0.0000 | 0.7391 | 0.0000 | 0.6506 | 0.0000 | 0.7431 | 0.6045 | 0.395 |
| 0.4483          | 0.0000 | 0.0000 | 0.5800 | 0.0000 | 0.4350 | 0.0000 | 0.5833 | 0.4083 | 0.273 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |       |
| 1.0893          | 1.0000 | 1.0000 | 1.1381 | 1.0000 | 1.0837 | 1.0000 | 1.1823 | 1.0308 | 0.715 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |       |
| 1.137           | 0.000  | 0.000  | 1.118  | 0.000  | 1.154  | 0.000  | 1.122  | 1.120  | 1.175 |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |       |
| 1.239           | 0.000  | 0.000  | 1.272  | 0.000  | 1.250  | 0.000  | 1.326  | 1.155  | 0.841 |

Diagram 2.4.3

Incore Power Distributions, Cycle 3

4150 MWD/MTU

| 31 F 2          | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.4145          | 0.6579 | 0.4885 | 0.2815 | 0.3256 | 0.2439 | 0.0000 | 0.6643 | 0.5718 | 0.6512 |
| 0.5733          | 0.7794 | 0.7532 | 0.3603 | 0.4534 | 0.3799 | 0.0000 | 0.7488 | 0.6749 | 0.7450 |
| 0.7077          | 0.9009 | 0.9069 | 0.4598 | 0.5642 | 0.4539 | 0.0000 | 0.8802 | 0.8062 | 0.8952 |
| 0.8533          | 1.0411 | 1.0436 | 0.5480 | 0.6665 | 0.5439 | 0.0000 | 0.9928 | 0.9561 | 1.0265 |
| 0.9504          | 1.1271 | 1.1460 | 0.6193 | 0.7432 | 0.5998 | 0.0000 | 1.0678 | 1.0499 | 1.1204 |
| 0.9878          | 1.1439 | 1.1819 | 0.6550 | 0.7773 | 0.6238 | 0.0000 | 1.0960 | 1.1005 | 1.1504 |
| 0.9990          | 1.1439 | 1.1990 | 0.6606 | 0.7858 | 0.6258 | 0.0000 | 1.1035 | 1.1118 | 1.1542 |
| 0.9560          | 1.0598 | 1.1631 | 0.6512 | 0.7653 | 0.5938 | 0.0000 | 1.0491 | 1.0405 | 1.1110 |
| 0.9841          | 1.1103 | 1.1802 | 0.6512 | 0.7858 | 0.6058 | 0.0000 | 1.0397 | 1.0686 | 1.0941 |
| 1.0251          | 1.1533 | 1.2229 | 0.6756 | 0.8199 | 0.6258 | 0.0000 | 1.0810 | 1.0968 | 1.1429 |
| 1.0494          | 1.1720 | 1.2400 | 0.6812 | 0.8284 | 0.6398 | 0.0000 | 1.0941 | 1.1155 | 1.1579 |
| 1.0494          | 1.1720 | 1.2451 | 0.6850 | 0.8335 | 0.6398 | 0.0000 | 1.0960 | 1.1249 | 1.1579 |
| 1.0307          | 1.1439 | 1.2143 | 0.6794 | 0.8113 | 0.6238 | 0.0000 | 1.0866 | 1.1155 | 1.1485 |
| 1.0065          | 1.1065 | 1.1973 | 0.6606 | 0.7943 | 0.6138 | 0.0000 | 1.0491 | 1.0874 | 1.1110 |
| 1.0494          | 1.1383 | 1.2519 | 0.6887 | 0.8284 | 0.6338 | 0.0000 | 1.1054 | 1.1436 | 1.1673 |
| 1.0681          | 1.1495 | 1.2741 | 0.6944 | 0.8523 | 0.6478 | 0.0000 | 1.1147 | 1.1624 | 1.1767 |
| 1.0681          | 1.1533 | 1.2741 | 0.6944 | 0.8540 | 0.6538 | 0.0000 | 1.1185 | 1.1624 | 1.1767 |
| 1.0681          | 1.1346 | 1.2741 | 0.6850 | 0.8454 | 0.6478 | 0.0000 | 1.1147 | 1.1530 | 1.1673 |
| 1.0382          | 1.0972 | 1.2229 | 0.6512 | 0.8028 | 0.6278 | 0.0000 | 1.0491 | 1.0968 | 1.1016 |
| 1.0961          | 1.1682 | 1.2861 | 0.7038 | 0.8523 | 0.6738 | 0.0000 | 1.1185 | 1.1624 | 1.1861 |
| 1.1185          | 1.1944 | 1.3083 | 0.7225 | 0.8625 | 0.6798 | 0.0000 | 1.1335 | 1.1717 | 1.1804 |
| 1.1241          | 1.1963 | 1.3083 | 0.7263 | 0.8676 | 0.6798 | 0.0000 | 1.1335 | 1.1755 | 1.2048 |
| 1.0868          | 1.1570 | 1.2861 | 0.7038 | 0.8403 | 0.6618 | 0.0000 | 1.1185 | 1.1624 | 1.1917 |
| 1.0214          | 1.0692 | 1.2143 | 0.6324 | 0.7943 | 0.6078 | 0.0000 | 1.0209 | 1.0686 | 1.0735 |
| 1.0438          | 1.1308 | 1.2622 | 0.6662 | 0.8199 | 0.6418 | 0.0000 | 1.0922 | 1.1436 | 1.1485 |
| 0.9841          | 1.0916 | 1.1973 | 0.6174 | 0.7721 | 0.6038 | 0.0000 | 1.0735 | 1.1061 | 1.1204 |
| 0.8160          | 0.9477 | 1.0265 | 0.5161 | 0.6477 | 0.5039 | 0.0000 | 0.9458 | 0.9468 | 0.9890 |
| 0.5359          | 0.6579 | 0.6985 | 0.3509 | 0.4193 | 0.3439 | 0.0000 | 0.6550 | 0.6468 | 0.6981 |
| 0.4052          | 0.4467 | 0.5226 | 0.2759 | 0.2915 | 0.2139 | 0.0000 | 0.4204 | 0.4312 | 0.4635 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.9536          | 1.0676 | 1.1458 | 0.6185 | 0.7499 | 0.5860 | 1.0000 | 1.0257 | 1.0411 | 1.0769 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.179           | 1.121  | 1.142  | 1.174  | 1.157  | 1.160  | 0.000  | 1.105  | 1.129  | 1.119  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.124           | 1.196  | 1.308  | 0.726  | 0.868  | 0.680  | 0.000  | 1.134  | 1.175  | 1.205  |

Diagram 2.4.3

## Incore Power Distributions, Cycle 3

| 4150 MWD/MTU |        |        |                 |        |        |        |        |        |        |
|--------------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|
| 41 D10       | 42 G14 | 43 H13 | 44 C 8          | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
| 0.5733       | 0.0000 | 0.4408 | 0.5193          | 0.5332 | 0.0000 | 0.6586 | 0.6637 | 0.0000 | 0.0000 |
| 0.8253       | 0.0000 | 0.6511 | 0.6880          | 0.6399 | 0.0000 | 0.8363 | 0.8137 | 0.0000 | 0.0000 |
| 0.9691       | 0.0000 | 0.7954 | 0.8099          | 0.7840 | 0.0000 | 0.9673 | 0.9636 | 0.0000 | 0.0000 |
| 1.1185       | 0.0000 | 0.9216 | 0.9505          | 0.9112 | 0.0000 | 1.1226 | 1.1136 | 0.0000 | 0.0000 |
| 1.2063       | 0.0000 | 1.0018 | 1.0255          | 1.0047 | 0.0000 | 1.2068 | 1.1792 | 0.0000 | 0.0000 |
| 1.2268       | 0.0000 | 1.0358 | 1.0630          | 1.0384 | 0.0000 | 1.2330 | 1.2261 | 0.0000 | 0.0000 |
| 1.2305       | 0.0000 | 1.0518 | 1.0724          | 1.0534 | 0.0000 | 1.2386 | 1.2299 | 0.0000 | 0.0000 |
| 1.1988       | 0.0000 | 1.0138 | 1.0349          | 1.0328 | 0.0000 | 1.1918 | 1.1699 | 0.0000 | 0.0000 |
| 1.2268       | 0.0000 | 1.0418 | 1.0499          | 1.0197 | 0.0000 | 1.2106 | 1.2074 | 0.0000 | 0.0000 |
| 1.2548       | 0.0000 | 1.0719 | 1.0986          | 1.0422 | 0.0000 | 1.2461 | 1.2317 | 0.0000 | 0.0000 |
| 1.2679       | 0.0000 | 1.0819 | 1.1099          | 1.0459 | 0.0000 | 1.2536 | 1.2430 | 0.0000 | 0.0000 |
| 1.2679       | 0.0000 | 1.0759 | 1.1193          | 1.0534 | 0.0000 | 1.2592 | 1.2467 | 0.0000 | 0.0000 |
| 1.2455       | 0.0000 | 1.0558 | 1.1005          | 1.0515 | 0.0000 | 1.2386 | 1.2355 | 0.0000 | 0.0000 |
| 1.2455       | 0.0000 | 1.0518 | 1.0630          | 1.0365 | 0.0000 | 1.2199 | 1.2111 | 0.0000 | 0.0000 |
| 1.3090       | 0.0000 | 1.1019 | 1.1136          | 1.0983 | 0.0000 | 1.2704 | 1.2542 | 0.0000 | 0.0000 |
| 1.3295       | 0.0000 | 1.1160 | 1.1230          | 1.1039 | 0.0000 | 1.2854 | 1.2767 | 0.0000 | 0.0000 |
| 1.3220       | 0.0000 | 1.1220 | 1.1324          | 1.1039 | 0.0000 | 1.2854 | 1.2861 | 0.0000 | 0.0000 |
| 1.3015       | 0.0000 | 1.1019 | 1.1249          | 1.0983 | 0.0000 | 1.2817 | 1.2674 | 0.0000 | 0.0000 |
| 1.2492       | 0.0000 | 1.0518 | 1.0724          | 1.0422 | 0.0000 | 1.2480 | 1.2261 | 0.0000 | 0.0000 |
| 1.3052       | 0.0000 | 1.1119 | 1.1399          | 1.1170 | 0.0000 | 1.3041 | 1.2692 | 0.0000 | 0.0000 |
| 1.3351       | 0.0000 | 1.1200 | 1.1549          | 1.1357 | 0.0000 | 1.3135 | 1.2880 | 0.0000 | 0.0000 |
| 1.3351       | 0.0000 | 1.1180 | 1.1530          | 1.1357 | 0.0000 | 1.3191 | 1.2917 | 0.0000 | 0.0000 |
| 1.3164       | 0.0000 | 1.1019 | 1.1286          | 1.1076 | 0.0000 | 1.3097 | 1.2824 | 0.0000 | 0.0000 |
| 1.2268       | 0.0000 | 1.0218 | 1.0349          | 1.0141 | 0.0000 | 1.2386 | 1.2355 | 0.0000 | 0.0000 |
| 1.2679       | 0.0000 | 1.0879 | 1.1043          | 1.0702 | 0.0000 | 1.2854 | 1.2786 | 0.0000 | 0.0000 |
| 1.2081       | 0.0000 | 1.0518 | 1.0630          | 1.0609 | 0.0000 | 1.2480 | 1.2355 | 0.0000 | 0.0000 |
| 1.0587       | 0.0000 | 0.9056 | 0.9224          | 0.9299 | 0.0000 | 1.0889 | 1.0761 | 0.0000 | 0.0000 |
| 0.7413       | 0.0000 | 0.6311 | 0.6318          | 0.6492 | 0.0000 | 0.7802 | 0.7387 | 0.0000 | 0.0000 |
| 0.5639       | 0.0000 | 0.4207 | 0.4256          | 0.4341 | 0.0000 | 0.5931 | 0.5512 | 0.0000 | 0.0000 |
| 1.1842       | 1.0000 | 0.9973 | THIMBLE AVERAGE |        | 1.0000 | 1.1825 | 1.1673 | 1.0000 | 1.0000 |
|              |        |        | 1.0199          | 0.9951 |        |        |        |        |        |
| 1.127        | 0.000  | 1.125  | AXIAL PEAK      |        | 0.000  | 1.116  | 1.107  | 0.000  | 0.000  |
|              |        |        | 1.132           | 1.141  |        |        |        |        |        |
| 1.335        | 0.000  | 1.122  | AVERAGE * PEAK  |        | 0.000  | 1.319  | 1.292  | 0.000  | 0.000  |
|              |        |        | 1.155           | 1.136  |        |        |        |        |        |

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 3 of 4

CYCLE: 3

## PART B - PWR STATEPOINT

Rev. 0 Date: 4/5/77

Exposure 6300 MWD/MTU

| ITEM (Unit)                                       | VALUE                                                                 | SOURCE             | COMMENTS                            |
|---------------------------------------------------|-----------------------------------------------------------------------|--------------------|-------------------------------------|
| <u>PWR Statepoint Data</u>                        |                                                                       |                    |                                     |
| 1. Core power (MWt)                               | 2200.                                                                 | NCCO log sheets    | 100%                                |
| 2. Total core flow<br>(10 <sup>6</sup> lbs/hr)    | 101.5                                                                 | Idem               | 100%                                |
| 3. System pressure (psia)                         | 2100.                                                                 | Idem               | none                                |
| 4. Soluble poison concentration<br>(ppm)          | 251.                                                                  | Daily water report | none                                |
| 5. Inlet temperature (°F)                         | 536.                                                                  | NCCO log sheets    | T <sub>avg</sub> = 563, ΔT = 55     |
| 6. Time at associated power<br>level (hrs)        | Previous 31 hrs @100%<br>6 hrs at 66%, greater<br>than 48 hrs at 100% | Idem               | none                                |
| 7. Xenon condition                                | See Item 6                                                            | Idem               | none                                |
| 8. Control rod positions<br>(by location)         | Bank D at<br>228 steps                                                | Idem               | 228 steps equals fully<br>withdrawn |
| 9. Inter-calibrated data from<br>incore traverses | See diagram                                                           | FP&L Records       | Diagram #2.4.4 attached             |

Verified By: Y29 Date: 9/27/77

Diagram 2.4.4  
Incore Power Distributions, Cycle 3

| 6300 MWD/MTU    |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 M 3           | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
| 0.2973          | 0.2707 | 0.5641 | 0.5333 | 0.7480 | 0.0000 | 0.0000 | 0.0000 | 0.6948 | 0.0000 |
| 0.4599          | 0.3776 | 0.8134 | 0.7550 | 0.8270 | 0.0000 | 0.0000 | 0.0000 | 0.7662 | 0.0000 |
| 0.5561          | 0.4595 | 0.9380 | 0.8879 | 0.9335 | 0.0000 | 0.0000 | 0.0000 | 0.8909 | 0.0000 |
| 0.6522          | 0.5368 | 1.0626 | 0.9913 | 1.0627 | 0.0000 | 0.0000 | 0.0000 | 1.0216 | 0.0000 |
| 0.7187          | 0.5892 | 1.1305 | 1.0578 | 1.1189 | 0.0000 | 0.0000 | 0.0000 | 1.0824 | 0.0000 |
| 0.7468          | 0.6119 | 1.1645 | 1.0800 | 1.1356 | 0.0000 | 0.0000 | 0.0000 | 1.1083 | 0.0000 |
| 0.7483          | 0.6119 | 1.1645 | 1.0800 | 1.1356 | 0.0000 | 0.0000 | 0.0000 | 1.1083 | 0.0000 |
| 0.7335          | 0.5892 | 1.1192 | 1.0431 | 1.0931 | 0.0000 | 0.0000 | 0.0000 | 1.0855 | 0.0000 |
| 0.7409          | 0.6005 | 1.1419 | 1.0283 | 1.0931 | 0.0000 | 0.0000 | 0.0000 | 1.1113 | 0.0000 |
| 0.7631          | 0.6233 | 1.1645 | 1.0593 | 1.1128 | 0.0000 | 0.0000 | 0.0000 | 1.1585 | 0.0000 |
| 0.7705          | 0.6347 | 1.1758 | 1.0726 | 1.1341 | 0.0000 | 0.0000 | 0.0000 | 1.1843 | 0.0000 |
| 0.7705          | 0.6347 | 1.1826 | 1.0726 | 1.1341 | 0.0000 | 0.0000 | 0.0000 | 1.1615 | 0.0000 |
| 0.7631          | 0.6233 | 1.1645 | 1.0652 | 1.1083 | 0.0000 | 0.0000 | 0.0000 | 1.1311 | 0.0000 |
| 0.7409          | 0.6119 | 1.1305 | 1.0061 | 1.0931 | 0.0000 | 0.0000 | 0.0000 | 1.1159 | 0.0000 |
| 0.7779          | 0.6438 | 1.1985 | 1.0800 | 1.1341 | 0.0000 | 0.0000 | 0.0000 | 1.1767 | 0.0000 |
| 0.8001          | 0.6574 | 1.2098 | 1.0948 | 1.1585 | 0.0000 | 0.0000 | 0.0000 | 1.1858 | 0.0000 |
| 0.8119          | 0.6597 | 1.2121 | 1.0948 | 1.1737 | 0.0000 | 0.0000 | 0.0000 | 1.1858 | 0.0000 |
| 0.8075          | 0.6460 | 1.2098 | 1.0874 | 1.1691 | 0.0000 | 0.0000 | 0.0000 | 1.1797 | 0.0000 |
| 0.7602          | 0.6233 | 1.1645 | 1.0061 | 1.1083 | 0.0000 | 0.0000 | 0.0000 | 1.1463 | 0.0000 |
| 0.8149          | 0.6597 | 1.2438 | 1.0874 | 1.1767 | 0.0000 | 0.0000 | 0.0000 | 1.2238 | 0.0000 |
| 0.8445          | 0.6733 | 1.2665 | 1.1021 | 1.2041 | 0.0000 | 0.0000 | 0.0000 | 1.2618 | 0.0000 |
| 0.8519          | 0.6802 | 1.2733 | 1.1169 | 1.1919 | 0.0000 | 0.0000 | 0.0000 | 1.2801 | 0.0000 |
| 0.8445          | 0.6642 | 1.2665 | 1.1169 | 1.1889 | 0.0000 | 0.0000 | 0.0000 | 1.2603 | 0.0000 |
| 0.7557          | 0.6233 | 1.1532 | 1.0209 | 1.1159 | 0.0000 | 0.0000 | 0.0000 | 1.1691 | 0.0000 |
| 0.8193          | 0.6597 | 1.2801 | 1.1435 | 1.2010 | 0.0000 | 0.0000 | 0.0000 | 1.2451 | 0.0000 |
| 0.7897          | 0.6278 | 1.2551 | 1.1391 | 1.1737 | 0.0000 | 0.0000 | 0.0000 | 1.2147 | 0.0000 |
| 0.6818          | 0.5323 | 1.1305 | 1.0283 | 1.0475 | 0.0000 | 0.0000 | 0.0000 | 1.0703 | 0.0000 |
| 0.4895          | 0.3731 | 0.8473 | 0.7623 | 0.7814 | 0.0000 | 0.0000 | 0.0000 | 0.7966 | 0.0000 |
| 0.3860          | 0.2593 | 0.6321 | 0.4639 | 0.6446 | 0.0000 | 0.0000 | 0.0000 | 0.6066 | 0.0000 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.7270          | 0.5890 | 1.1308 | 1.0206 | 1.0894 | 1.0000 | 1.0000 | 1.0000 | 1.1062 | 1.0000 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.172           | 1.155  | 1.132  | 1.120  | 1.105  | 0.000  | 0.000  | 0.000  | 1.157  | 0.000  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 0.852           | 0.680  | 1.280  | 1.144  | 1.204  | 0.000  | 0.000  | 0.000  | 1.280  | 0.000  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4.4

Incore Power Distribution, Cycle 3

6300 MWD/MTU

| 11 L 9          | 12 B10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G 7 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0000          | 0.3825 | 0.5267 | 0.4905 | 0.5250 | 0.0000 | 0.5579 | 0.0000 | 0.0000 | 0.7092 |
| 0.0000          | 0.5636 | 0.7015 | 0.6752 | 0.8208 | 0.0000 | 0.6804 | 0.0000 | 0.0000 | 0.8417 |
| 0.0000          | 0.6903 | 0.8036 | 0.8081 | 0.9465 | 0.0000 | 0.8324 | 0.0000 | 0.0000 | 0.9888 |
| 0.0000          | 0.8125 | 0.9467 | 0.9411 | 1.0574 | 0.0000 | 0.9756 | 0.0000 | 0.0000 | 1.0992 |
| 0.0000          | 0.8963 | 1.0193 | 1.0371 | 1.1166 | 0.0000 | 1.0597 | 0.0000 | 0.0000 | 1.1654 |
| 0.0000          | 0.9325 | 1.0534 | 1.0815 | 1.1314 | 0.0000 | 1.1010 | 0.0000 | 0.0000 | 1.1904 |
| 0.0000          | 0.9370 | 1.0647 | 1.0962 | 1.1314 | 0.0000 | 1.1084 | 0.0000 | 0.0000 | 1.1948 |
| 0.0000          | 0.9053 | 1.0193 | 1.0593 | 1.1018 | 0.0000 | 1.1010 | 0.0000 | 0.0000 | 1.1728 |
| 0.0000          | 0.9144 | 1.0193 | 1.0593 | 1.1092 | 0.0000 | 1.1010 | 0.0000 | 0.0000 | 1.1580 |
| 0.0000          | 0.9483 | 1.0602 | 1.1036 | 1.1462 | 0.0000 | 1.1527 | 0.0000 | 0.0000 | 1.2022 |
| 0.0000          | 0.9483 | 1.0602 | 1.1258 | 1.1535 | 0.0000 | 1.1778 | 0.0000 | 0.0000 | 1.2154 |
| 0.0000          | 0.9483 | 1.0579 | 1.1258 | 1.1535 | 0.0000 | 1.1719 | 0.0000 | 0.0000 | 1.2243 |
| 0.0000          | 0.9483 | 1.0420 | 1.1036 | 1.1388 | 0.0000 | 1.1335 | 0.0000 | 0.0000 | 1.2051 |
| 0.0000          | 0.9257 | 1.0193 | 1.0667 | 1.0722 | 0.0000 | 1.1010 | 0.0000 | 0.0000 | 1.1728 |
| 0.0000          | 0.9868 | 1.0920 | 1.1154 | 1.1609 | 0.0000 | 1.1675 | 0.0000 | 0.0000 | 1.2537 |
| 0.0000          | 1.0027 | 1.1215 | 1.1302 | 1.1757 | 0.0000 | 1.2044 | 0.0000 | 0.0000 | 1.2610 |
| 0.0000          | 1.0049 | 1.1260 | 1.1332 | 1.1802 | 0.0000 | 1.2132 | 0.0000 | 0.0000 | 1.2537 |
| 0.0000          | 0.9868 | 1.1033 | 1.1302 | 1.1787 | 0.0000 | 1.2044 | 0.0000 | 0.0000 | 1.2243 |
| 0.0000          | 0.9483 | 1.0534 | 1.0741 | 1.0944 | 0.0000 | 1.1527 | 0.0000 | 0.0000 | 1.1801 |
| 0.0000          | 1.0072 | 1.1169 | 1.1701 | 1.1905 | 0.0000 | 1.2265 | 0.0000 | 0.0000 | 1.2537 |
| 0.0000          | 1.0275 | 1.1328 | 1.1997 | 1.2127 | 0.0000 | 1.2486 | 0.0000 | 0.0000 | 1.2758 |
| 0.0000          | 1.0389 | 1.1442 | 1.2144 | 1.2201 | 0.0000 | 1.2516 | 0.0000 | 0.0000 | 1.2905 |
| 0.0000          | 1.0275 | 1.1351 | 1.2070 | 1.2201 | 0.0000 | 1.2457 | 0.0000 | 0.0000 | 1.2875 |
| 0.0000          | 0.9483 | 1.0761 | 1.0815 | 1.1092 | 0.0000 | 1.1601 | 0.0000 | 0.0000 | 1.2169 |
| 0.0000          | 1.0162 | 1.1691 | 1.1849 | 1.2349 | 0.0000 | 1.2117 | 0.0000 | 0.0000 | 1.2787 |
| 0.0000          | 0.9732 | 1.1442 | 1.1627 | 1.2142 | 0.0000 | 1.1822 | 0.0000 | 0.0000 | 1.2463 |
| 0.0000          | 0.8465 | 1.0034 | 1.0150 | 1.0870 | 0.0000 | 1.0272 | 0.0000 | 0.0000 | 1.0992 |
| 0.0000          | 0.5975 | 0.7015 | 0.7343 | 0.8356 | 0.0000 | 0.7394 | 0.0000 | 0.0000 | 0.8196 |
| 0.0000          | 0.4730 | 0.4631 | 0.4683 | 0.6581 | 0.0000 | 0.5254 | 0.0000 | 0.0000 | 0.6430 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 1.0000          | 0.9004 | 1.0172 | 1.0470 | 1.0995 | 1.0000 | 1.0883 | 1.0000 | 1.0000 | 1.1588 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 0.000           | 1.154  | 1.149  | 1.160  | 1.123  | 0.000  | 1.150  | 0.000  | 0.000  | 1.114  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 0.000           | 1.039  | 1.169  | 1.214  | 1.235  | 0.000  | 1.252  | 0.000  | 0.000  | 1.290  |

Diagram 2.4.4  
Incore Power Distributions, Cycle 3  
6300 MWD/MTU

| 21 F11 | 22 N 5 | 23 J10 | 24 J 5          | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 L14 |
|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|
| 0.5494 | 0.7061 | 0.6946 | 0.5428          | 0.5447 | 0.5977 | 0.4036 | 0.5902 | 0.5312 | 0.3565 |
| 0.7582 | 0.6939 | 0.7754 | 0.8090          | 0.6054 | 0.7011 | 0.4764 | 0.8405 | 0.7401 | 0.4330 |
| 0.8831 | 0.8324 | 0.8592 | 0.9450          | 0.7419 | 0.8265 | 0.5371 | 0.9771 | 0.8490 | 0.5288 |
| 1.0080 | 0.9527 | 1.0237 | 1.0530          | 0.8481 | 0.9741 | 0.6585 | 1.0833 | 0.9739 | 0.6245 |
| 1.0715 | 1.0364 | 1.0694 | 1.1077          | 0.9194 | 1.0405 | 0.7192 | 1.1470 | 1.0420 | 0.6864 |
| 1.0988 | 1.0820 | 1.0953 | 1.1195          | 0.9543 | 1.0700 | 0.7465 | 1.1728 | 1.0761 | 0.7129 |
| 1.0988 | 1.0927 | 1.0953 | 1.1225          | 0.9695 | 1.0774 | 0.7465 | 1.1774 | 1.0783 | 0.7129 |
| 1.0579 | 1.0592 | 1.0267 | 1.1121          | 0.9619 | 1.0582 | 0.7267 | 1.1516 | 1.0307 | 0.6992 |
| 1.0761 | 1.0561 | 1.0648 | 1.0973          | 0.9741 | 1.0700 | 0.7343 | 1.1591 | 1.0307 | 0.7011 |
| 1.1215 | 1.1216 | 1.1029 | 1.1491          | 1.0089 | 1.1173 | 0.7616 | 1.1986 | 1.0647 | 0.7276 |
| 1.1237 | 1.1124 | 1.1258 | 1.1683          | 1.0196 | 1.1409 | 0.7647 | 1.2198 | 1.0761 | 0.7394 |
| 1.1215 | 1.1185 | 1.1212 | 1.1669          | 1.0226 | 1.1409 | 0.7677 | 1.2168 | 1.0761 | 0.7424 |
| 1.0897 | 1.0972 | 1.0801 | 1.1565          | 0.9847 | 1.1217 | 0.7571 | 1.1819 | 1.0534 | 0.7350 |
| 1.0579 | 1.0714 | 1.0420 | 1.0900          | 0.9619 | 1.0627 | 0.7267 | 1.1516 | 1.0307 | 0.7055 |
| 1.1237 | 1.1383 | 1.0892 | 1.1535          | 1.0120 | 1.1291 | 0.7723 | 1.2047 | 1.0942 | 0.6024 |
| 1.1396 | 1.1627 | 1.1151 | 1.1565          | 1.0302 | 1.1512 | 0.7874 | 1.2168 | 1.1169 | 0.6157 |
| 1.1396 | 1.1688 | 1.1258 | 1.1639          | 1.0378 | 1.1586 | 0.7950 | 1.2198 | 1.1260 | 0.6172 |
| 1.1260 | 1.1581 | 1.1060 | 1.1757          | 1.0302 | 1.1615 | 0.7829 | 1.2168 | 1.1101 | 0.6172 |
| 1.0874 | 1.1048 | 1.0648 | 1.1343          | 0.9847 | 1.1069 | 0.7374 | 1.1895 | 1.0420 | 0.7129 |
| 1.1896 | 1.1809 | 1.1349 | 1.2275          | 1.0620 | 1.1881 | 0.7981 | 1.2745 | 1.1215 | 0.7792 |
| 1.2123 | 1.2114 | 1.1638 | 1.2349          | 1.0803 | 1.2176 | 0.8223 | 1.2957 | 1.1396 | 0.7998 |
| 1.2077 | 1.2418 | 1.1806 | 1.2452          | 1.0863 | 1.2294 | 0.8254 | 1.2927 | 1.1442 | 0.8042 |
| 1.1828 | 1.2190 | 1.1608 | 1.2378          | 1.0757 | 1.2176 | 0.8178 | 1.2729 | 1.1328 | 0.8013 |
| 1.0874 | 1.1277 | 1.0648 | 1.1491          | 0.9695 | 1.1143 | 0.7343 | 1.1971 | 1.0420 | 0.7129 |
| 1.1896 | 1.2114 | 1.1486 | 1.2349          | 1.0499 | 1.1881 | 0.7920 | 1.2820 | 1.1487 | 0.7748 |
| 1.1669 | 1.1733 | 1.1334 | 1.2083          | 1.0226 | 1.1586 | 0.7616 | 1.2502 | 1.1328 | 0.7497 |
| 1.0352 | 1.0364 | 0.9963 | 1.0826          | 0.8861 | 1.0184 | 0.6661 | 1.1136 | 1.0080 | 0.6540 |
| 0.7582 | 0.7548 | 0.7221 | 0.8090          | 0.6433 | 0.7306 | 0.4764 | 0.8178 | 0.7242 | 0.4625 |
| 0.4858 | 0.6026 | 0.4783 | 0.6315          | 0.4309 | 0.4679 | 0.3854 | 0.6281 | 0.4745 | 0.3447 |
|        |        |        | THIMBLE AVERAGE |        |        |        |        |        |        |
| 1.0618 | 1.0668 | 1.0455 | 1.1035          | 0.9439 | 1.0609 | 0.7174 | 1.1475 | 1.0253 | 0.6715 |
|        |        |        | AXIAL PEAK      |        |        |        |        |        |        |
| 1.142  | 1.164  | 1.129  | 1.128           | 1.151  | 1.159  | 1.151  | 1.129  | 1.120  | 1.198  |
|        |        |        | AVERAGE * PEAK  |        |        |        |        |        |        |
| 1.212  | 1.242  | 1.181  | 1.245           | 1.086  | 1.229  | 0.825  | 1.296  | 1.149  | 0.804  |

Diatram 2.4.4

Incore Power Distributions, Cycle 3

6300 MWD/MTU

| 31 F 2          | 32 F 9 | 33 N 7 | 34 A 9 | 35 N12 | 36 R 8 | 37 H 4 | 38 H11 | 39 D 5 | 40 L 6 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.3919          | 0.5783 | 0.0000 | 0.2887 | 0.0000 | 0.2809 | 0.7647 | 0.6515 | 0.5916 | 0.6583 |
| 0.5546          | 0.7705 | 0.0000 | 0.3697 | 0.0000 | 0.3942 | 0.7647 | 0.7697 | 0.6951 | 0.8354 |
| 0.6877          | 0.8888 | 0.0000 | 0.4581 | 0.0000 | 0.4644 | 0.8936 | 0.8805 | 0.8282 | 0.8870 |
| 0.8060          | 1.0071 | 0.0000 | 0.5362 | 0.0000 | 0.5483 | 0.9998 | 0.9913 | 0.9613 | 1.0051 |
| 0.8873          | 1.0766 | 0.0000 | 0.5877 | 0.0000 | 0.5981 | 1.0529 | 1.0504 | 1.0397 | 1.0863 |
| 0.9273          | 1.0929 | 0.0000 | 0.6127 | 0.0000 | 0.5936 | 1.0681 | 1.0756 | 1.0811 | 1.1128 |
| 0.9332          | 1.0929 | 0.0000 | 0.6201 | 0.0000 | 0.6162 | 1.0681 | 1.0800 | 1.0870 | 1.1128 |
| 0.9095          | 1.0663 | 0.0000 | 0.6054 | 0.0000 | 0.5868 | 1.0454 | 1.0283 | 1.0426 | 1.0715 |
| 0.9021          | 1.0633 | 0.0000 | 0.6054 | 0.0000 | 0.5891 | 1.0469 | 1.0209 | 1.0278 | 1.0641 |
| 0.9539          | 1.1033 | 0.0000 | 0.6275 | 0.0000 | 0.6094 | 1.0833 | 1.0504 | 1.0604 | 1.1084 |
| 0.9687          | 1.1195 | 0.0000 | 0.6304 | 0.0000 | 0.6162 | 1.0954 | 1.0608 | 1.0752 | 1.1187 |
| 0.9731          | 1.1254 | 0.0000 | 0.6304 | 0.0000 | 0.6208 | 1.0985 | 1.0696 | 1.0840 | 1.1187 |
| 0.9687          | 1.1003 | 0.0000 | 0.6275 | 0.0000 | 0.6094 | 1.0803 | 1.0578 | 1.0752 | 1.1084 |
| 0.9835          | 1.0441 | 0.0000 | 0.6054 | 0.0000 | 0.5868 | 1.0226 | 1.0209 | 1.0308 | 1.0715 |
| 0.9657          | 1.0914 | 0.0000 | 0.6422 | 0.0000 | 0.6162 | 1.0863 | 1.0815 | 1.1092 | 1.1320 |
| 0.9864          | 1.1107 | 0.0000 | 0.6496 | 0.0000 | 0.6253 | 1.1076 | 1.0948 | 1.1299 | 1.1468 |
| 0.9983          | 1.1181 | 0.0000 | 0.6496 | 0.0000 | 0.6344 | 1.1136 | 1.1021 | 1.1299 | 1.1483 |
| 1.0012          | 1.1181 | 0.0000 | 0.6422 | 0.0000 | 0.6344 | 1.1106 | 1.0992 | 1.1284 | 1.1453 |
| 0.9613          | 1.0663 | 0.0000 | 0.6157 | 0.0000 | 0.6094 | 1.0454 | 1.0578 | 1.0500 | 1.0937 |
| 1.0308          | 1.1476 | 0.0000 | 0.6643 | 0.0000 | 0.6616 | 1.1106 | 1.1243 | 1.1373 | 1.1748 |
| 1.0619          | 1.1846 | 0.0000 | 0.6893 | 0.0000 | 0.6706 | 1.1258 | 1.1450 | 1.1550 | 1.2014 |
| 1.0692          | 1.1920 | 0.0000 | 0.6938 | 0.0000 | 0.6706 | 1.1303 | 1.1539 | 1.1683 | 1.2117 |
| 1.0545          | 1.1669 | 0.0000 | 0.6864 | 0.0000 | 0.6616 | 1.1318 | 1.1435 | 1.1683 | 1.2029 |
| 0.9761          | 1.0589 | 0.0000 | 0.6275 | 0.0000 | 0.6094 | 1.0529 | 1.1317 | 1.0796 | 1.1084 |
| 1.0352          | 1.1447 | 0.0000 | 0.6643 | 0.0000 | 0.6548 | 1.1516 | 1.1450 | 1.1757 | 1.1763 |
| 1.0057          | 1.1210 | 0.0000 | 0.6275 | 0.0000 | 0.6253 | 1.1288 | 1.1243 | 1.1535 | 1.1601 |
| 0.8578          | 0.9850 | 0.0000 | 0.5317 | 0.0000 | 0.5415 | 1.0029 | 0.9947 | 1.0057 | 1.0346 |
| 0.6064          | 0.7187 | 0.0000 | 0.3771 | 0.0000 | 0.3829 | 0.7571 | 0.7254 | 0.7321 | 0.7394 |
| 0.4659          | 0.4895 | 0.0000 | 0.2740 | 0.0000 | 0.2402 | 0.6130 | 0.4595 | 0.4585 | 0.5033 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.9105          | 1.0467 | 1.0000 | 0.5914 | 1.0000 | 0.5819 | 1.0380 | 1.0300 | 1.0334 | 1.0699 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.174           | 1.139  | 0.000  | 1.173  | 0.000  | 1.153  | 1.109  | 1.120  | 1.138  | 1.133  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.069           | 1.192  | 0.000  | 0.694  | 0.000  | 0.671  | 1.152  | 1.154  | 1.176  | 1.212  |

Diagram 2.4.4

Incore Power Distributions, Cycle 3

| 6300 MWD/MTU    |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 41 D10          | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L   |
| 0.5387          | 0.6324 | 0.4735 | 0.5191 | 0.5818 | 0.6805 | 0.6599 | 0.5502 | 0.7343 | 0.0000 |
| 0.7970          | 0.7130 | 0.6661 | 0.7187 | 0.6555 | 0.7109 | 0.8219 | 0.8016 | 0.8254 | 0.0000 |
| 0.9446          | 0.8392 | 0.7907 | 0.8223 | 0.7733 | 0.7942 | 0.9545 | 0.9495 | 0.9467 | 0.0000 |
| 1.0700          | 0.9715 | 0.9108 | 0.9850 | 0.8965 | 0.9428 | 1.0870 | 1.0678 | 1.0712 | 0.0000 |
| 1.1409          | 1.0551 | 0.9719 | 1.0367 | 0.9721 | 1.0064 | 1.1607 | 1.1462 | 1.1227 | 0.0000 |
| 1.1660          | 1.0855 | 1.0059 | 1.0471 | 1.0016 | 1.0185 | 1.1828 | 1.1787 | 1.1440 | 0.0000 |
| 1.1704          | 1.0931 | 1.0082 | 1.0471 | 1.0090 | 1.0337 | 1.1828 | 1.1787 | 1.1470 | 0.0000 |
| 1.1512          | 1.0551 | 0.9719 | 0.9997 | 0.9795 | 0.9837 | 1.1533 | 1.1491 | 1.1212 | 0.0000 |
| 1.1365          | 1.0703 | 0.9833 | 1.0441 | 0.9795 | 1.0034 | 1.1460 | 1.1417 | 1.1334 | 0.0000 |
| 1.1852          | 1.0931 | 1.0173 | 1.0811 | 0.9942 | 1.0367 | 1.1754 | 1.1757 | 1.1667 | 0.0000 |
| 1.1955          | 1.1083 | 1.0286 | 1.0855 | 1.0016 | 1.0458 | 1.1857 | 1.1787 | 1.1774 | 0.0000 |
| 1.1881          | 1.1189 | 1.0173 | 1.0855 | 1.0060 | 1.0443 | 1.1857 | 1.1816 | 1.1713 | 0.0000 |
| 1.1704          | 1.1128 | 1.0059 | 1.0441 | 1.0016 | 1.0216 | 1.1754 | 1.1797 | 1.1440 | 0.0000 |
| 1.1586          | 1.1007 | 0.9833 | 1.0441 | 0.9869 | 1.0064 | 1.1386 | 1.1491 | 1.1364 | 0.0000 |
| 1.2250          | 1.1463 | 1.0512 | 1.0914 | 1.0384 | 1.0595 | 1.2049 | 1.2083 | 1.1986 | 0.0000 |
| 1.2590          | 1.1691 | 1.0626 | 1.1033 | 1.0458 | 1.0822 | 1.2240 | 1.2304 | 1.2138 | 0.0000 |
| 1.2619          | 1.1737 | 1.0694 | 1.1003 | 1.0532 | 1.0898 | 1.2270 | 1.2497 | 1.2183 | 0.0000 |
| 1.2398          | 1.1651 | 1.0535 | 1.0840 | 1.0502 | 1.0761 | 1.2270 | 1.2378 | 1.2077 | 0.0000 |
| 1.1807          | 1.1159 | 0.9946 | 1.0663 | 1.0016 | 1.0367 | 1.1901 | 1.1787 | 1.1743 | 0.0000 |
| 1.2545          | 1.2299 | 1.0648 | 1.1402 | 1.0708 | 1.1004 | 1.2564 | 1.2452 | 1.2441 | 0.0000 |
| 1.2885          | 1.2451 | 1.0875 | 1.1417 | 1.0973 | 1.1216 | 1.2785 | 1.2645 | 1.2593 | 0.0000 |
| 1.2959          | 1.2512 | 1.0920 | 1.1373 | 1.1003 | 1.1277 | 1.2859 | 1.2793 | 1.2623 | 0.0000 |
| 1.2944          | 1.2299 | 1.0852 | 1.1062 | 1.0626 | 1.1125 | 1.2785 | 1.2748 | 1.2608 | 0.0000 |
| 1.2103          | 1.1235 | 0.9946 | 1.0293 | 1.0163 | 1.0367 | 1.2270 | 1.2083 | 1.1819 | 0.0000 |
| 1.2737          | 1.2147 | 1.0875 | 1.1195 | 1.0752 | 1.1277 | 1.2859 | 1.2970 | 1.2654 | 0.0000 |
| 1.2398          | 1.1767 | 1.0648 | 1.0811 | 1.0679 | 1.1049 | 1.2638 | 1.2748 | 1.2350 | 0.0000 |
| 1.1069          | 1.0475 | 0.9289 | 0.9406 | 0.9427 | 0.9609 | 1.1165 | 1.1314 | 1.1060 | 0.0000 |
| 0.8191          | 0.7738 | 0.6661 | 0.6818 | 0.6849 | 0.6881 | 0.8293 | 0.8607 | 0.8254 | 0.0000 |
| 0.6081          | 0.6446 | 0.4577 | 0.4452 | 0.4640 | 0.4532 | 0.6231 | 0.6167 | 0.6433 | 0.0000 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 1.1428          | 1.0758 | 0.9689 | 1.0124 | 0.9682 | 0.9979 | 1.1459 | 1.1429 | 1.1303 | 1.0000 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.134           | 1.163  | 1.127  | 1.128  | 1.136  | 1.130  | 1.122  | 1.135  | 1.119  | 0.000  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 1.296           | 1.251  | 1.092  | 1.142  | 1.100  | 1.128  | 1.286  | 1.297  | 1.265  | 0.000  |

REACTOR: Turkey Point 3

## TABLE 2.4 PWR OPERATING DATA

Sheet 4 of 4

CYCLE: 3

## PART B - PWR STATEPOINT

Rev. 0 Date: 4/5/77

Exposure 7730 MWD/MTU

| ITEM (Unit)                                       | VALUE                                 | SOURCE             | COMMENTS                            |
|---------------------------------------------------|---------------------------------------|--------------------|-------------------------------------|
| <u>PWR Statepoint Data</u>                        |                                       |                    |                                     |
| 1. Core power (MWt)                               | 2200                                  | NCCO log sheets    | 100%                                |
| 2. Total core flow<br>(10 <sup>6</sup> lbs/hr)    | 101.5                                 | Idem               | 100%                                |
| 3. System pressure (psia)                         | 2100.                                 | Idem               | none                                |
| 4. Soluble poison concentration<br>(ppm)          | 95                                    | Daily water report | none                                |
| 5. Inlet temperature (°F)                         | 537                                   | NCCO log sheets    | T <sub>avg</sub> = 564, ΔT = 55     |
| 6. Time at associated power<br>level (hrs)        | at 100% power<br>greater than 72 hrs. | Idem               | none                                |
| 7. Xenon condition                                | equilibrium                           | inferred           | none                                |
| 8. Control rod positions<br>(by location)         | all rods out                          | NCCO log sheets    | 228 steps equals fully<br>withdrawn |
| 9. Inter-calibrated data from<br>incore traverses | See diagram                           | FP&L Records       | Diagram #2.4-5 attached             |

Verified By: 1729 Date: 12/6/77

Diagram 2.4.5

Incore Power Distributions, Cycle 3

7730 MWD/MTU

| 1 M 3           | 2 J15  | 3 F 4  | 4 L 8  | 5 F 8  | 6 D12  | 7 B 5  | 8 H 6  | 9 J 3  | 10 D 3 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.3107          | 0.0000 | 0.0000 | 0.4765 | 0.6799 | 0.0000 | 0.2847 | 0.4999 | 0.6102 | 0.0000 |
| 0.4637          | 0.0000 | 0.0000 | 0.7084 | 0.8386 | 0.0000 | 0.4316 | 0.7827 | 0.7998 | 0.0000 |
| 0.5603          | 0.0000 | 0.0000 | 0.8211 | 0.9387 | 0.0000 | 0.5107 | 0.9252 | 0.9032 | 0.0000 |
| 0.6568          | 0.0000 | 0.0000 | 0.9772 | 1.0767 | 0.0000 | 0.6236 | 1.0315 | 1.0583 | 0.0000 |
| 0.7212          | 0.0000 | 0.0000 | 1.0497 | 1.1458 | 0.0000 | 0.6914 | 1.1152 | 1.1307 | 0.0000 |
| 0.7373          | 0.0000 | 0.0000 | 1.0738 | 1.1647 | 0.0000 | 0.7140 | 1.1378 | 1.1531 | 0.0000 |
| 0.7406          | 0.0000 | 0.0000 | 1.0738 | 1.1647 | 0.0000 | 0.7253 | 1.1378 | 1.1531 | 0.0000 |
| 0.7051          | 0.0000 | 0.0000 | 1.0078 | 1.0905 | 0.0000 | 0.6846 | 1.1061 | 1.0755 | 0.0000 |
| 0.7229          | 0.0000 | 0.0000 | 1.0287 | 1.1320 | 0.0000 | 0.7072 | 1.0993 | 1.1617 | 0.0000 |
| 0.7486          | 0.0000 | 0.0000 | 1.0690 | 1.1596 | 0.0000 | 0.7253 | 1.1446 | 1.2048 | 0.0000 |
| 0.7567          | 0.0000 | 0.0000 | 1.0770 | 1.1768 | 0.0000 | 0.7253 | 1.1559 | 1.2117 | 0.0000 |
| 0.7567          | 0.0000 | 0.0000 | 1.0835 | 1.1803 | 0.0000 | 0.7253 | 1.1559 | 1.2048 | 0.0000 |
| 0.7422          | 0.0000 | 0.0000 | 1.0609 | 1.1544 | 0.0000 | 0.7140 | 1.1333 | 1.1617 | 0.0000 |
| 0.7212          | 0.0000 | 0.0000 | 1.0432 | 1.1354 | 0.0000 | 0.7027 | 1.1107 | 1.1703 | 0.0000 |
| 0.7599          | 0.0000 | 0.0000 | 1.0915 | 1.1716 | 0.0000 | 0.7366 | 1.1740 | 1.2134 | 0.0000 |
| 0.7712          | 0.0000 | 0.0000 | 1.1044 | 1.1889 | 0.0000 | 0.7479 | 1.1785 | 1.2221 | 0.0000 |
| 0.7744          | 0.0000 | 0.0000 | 1.1060 | 1.1992 | 0.0000 | 0.7479 | 1.1785 | 1.2134 | 0.0000 |
| 0.7583          | 0.0000 | 0.0000 | 1.0819 | 1.1837 | 0.0000 | 0.7253 | 1.1604 | 1.1928 | 0.0000 |
| 0.7373          | 0.0000 | 0.0000 | 1.0416 | 1.1458 | 0.0000 | 0.7027 | 1.1107 | 1.1790 | 0.0000 |
| 0.7640          | 0.0000 | 0.0000 | 1.0899 | 1.1975 | 0.0000 | 0.7456 | 1.1740 | 1.2341 | 0.0000 |
| 0.8017          | 0.0000 | 0.0000 | 1.0980 | 1.2061 | 0.0000 | 0.7682 | 1.1830 | 1.2651 | 0.0000 |
| 0.8050          | 0.0000 | 0.0000 | 1.1060 | 1.2061 | 0.0000 | 0.7705 | 1.1966 | 1.2789 | 0.0000 |
| 0.7889          | 0.0000 | 0.0000 | 1.1060 | 1.1941 | 0.0000 | 0.7479 | 1.1898 | 1.2479 | 0.0000 |
| 0.7486          | 0.0000 | 0.0000 | 1.0577 | 1.1458 | 0.0000 | 0.6982 | 1.1220 | 1.1790 | 0.0000 |
| 0.7792          | 0.0000 | 0.0000 | 1.1382 | 1.2113 | 0.0000 | 0.7253 | 1.1898 | 1.2445 | 0.0000 |
| 0.7502          | 0.0000 | 0.0000 | 1.1382 | 1.1837 | 0.0000 | 0.7005 | 1.1672 | 1.2134 | 0.0000 |
| 0.6488          | 0.0000 | 0.0000 | 1.0094 | 1.0560 | 0.0000 | 0.6010 | 1.0428 | 1.0669 | 0.0000 |
| 0.4331          | 0.0000 | 0.0000 | 0.6762 | 0.7489 | 0.0000 | 0.4090 | 0.7487 | 0.7481 | 0.0000 |
| 0.3590          | 0.0000 | 0.0000 | 0.4781 | 0.6712 | 0.0000 | 0.3299 | 0.6696 | 0.6446 | 0.0000 |
| THIMBLE AVERAGE |        |        |        |        |        |        |        |        |        |
| 0.7039          | 1.0000 | 1.0000 | 1.0142 | 1.1097 | 1.0000 | 0.6720 | 1.0870 | 1.1255 | 1.0000 |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |        |
| 1.144           | 0.000  | 0.000  | 1.122  | 1.092  | 0.000  | 1.147  | 1.101  | 1.136  | 0.000  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |        |
| 0.805           | 0.000  | 0.000  | 1.138  | 1.211  | 0.000  | 0.770  | 1.197  | 1.279  | 0.000  |

Note: See Diagram 2.2-3 for location of incore detectors

Sheet 1 of 5 sheets

Diagram 2.4.5

## Incore Power Distributions, Cycle 3

7730 MWD/MTU

|    | 11 L 9 | 12 H10 | 13 L 4 | 14 F13 | 15 F 6 | 16 J12 | 17 B 7 | 18 H 1 | 19 G 9 | 20 G |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| 1  | 0.5214 | 0.0000 | 0.0000 | 0.4862 | 0.5259 | 0.4881 | 0.5210 | 0.2708 | 0.5678 | 0.63 |
| 2  | 0.7922 | 0.0000 | 0.0000 | 0.6955 | 0.7976 | 0.7027 | 0.6915 | 0.3972 | 0.8143 | 0.80 |
| 3  | 0.9231 | 0.0000 | 0.0000 | 0.8146 | 0.9231 | 0.8112 | 0.8314 | 0.4649 | 0.9523 | 0.92 |
| 4  | 1.0631 | 0.0000 | 0.0000 | 0.9611 | 1.0373 | 0.9626 | 0.9713 | 0.5665 | 1.0993 | 1.05 |
| 5  | 1.1330 | 0.0000 | 0.0000 | 1.0497 | 1.0903 | 1.0371 | 1.0598 | 0.6162 | 1.1030 | 1.14 |
| 6  | 1.1488 | 0.0000 | 0.0000 | 1.0851 | 1.1080 | 1.0642 | 1.0935 | 0.6297 | 1.2124 | 1.18 |
| 7  | 1.1511 | 0.0000 | 0.0000 | 1.0899 | 1.1128 | 1.0753 | 1.1048 | 0.6297 | 1.2124 | 1.18 |
| 8  | 1.0744 | 0.0000 | 0.0000 | 1.0126 | 1.0469 | 0.9739 | 1.0517 | 0.5778 | 1.1446 | 1.12 |
| 9  | 1.1195 | 0.0000 | 0.0000 | 1.0577 | 1.1016 | 1.0416 | 1.1032 | 0.5936 | 1.1795 | 1.16 |
| 10 | 1.1488 | 0.0000 | 0.0000 | 1.0996 | 1.1321 | 1.0710 | 1.1530 | 0.6139 | 1.2288 | 1.19 |
| 11 | 1.1511 | 0.0000 | 0.0000 | 1.1189 | 1.1386 | 1.0710 | 1.1707 | 0.6229 | 1.2288 | 1.20 |
| 12 | 1.1533 | 0.0000 | 0.0000 | 1.1221 | 1.1370 | 1.0688 | 1.1691 | 0.6229 | 1.2288 | 1.21 |
| 13 | 1.1285 | 0.0000 | 0.0000 | 1.0899 | 1.1032 | 1.0394 | 1.1209 | 0.6071 | 1.1830 | 1.19 |
| 14 | 1.1150 | 0.0000 | 0.0000 | 1.0738 | 1.0887 | 1.0462 | 1.0968 | 0.6004 | 1.1604 | 1.17 |
| 15 | 1.1488 | 0.0000 | 0.0000 | 1.1108 | 1.1386 | 1.0914 | 1.1530 | 0.6229 | 1.1333 | 1.24 |
| 16 | 1.1533 | 0.0000 | 0.0000 | 1.1237 | 1.1514 | 1.1026 | 1.1772 | 0.6320 | 1.2351 | 1.24 |
| 17 | 1.1556 | 0.0000 | 0.0000 | 1.1269 | 1.1546 | 1.1072 | 1.1852 | 0.6365 | 1.2351 | 1.24 |
| 18 | 1.1579 | 0.0000 | 0.0000 | 1.1221 | 1.1434 | 1.0755 | 1.1691 | 0.6297 | 1.2238 | 1.21 |
| 19 | 1.1353 | 0.0000 | 0.0000 | 1.0915 | 1.1064 | 1.0462 | 1.1241 | 0.6071 | 1.1921 | 1.16 |
| 20 | 1.1872 | 0.0000 | 0.0000 | 1.1656 | 1.1643 | 1.0981 | 1.1852 | 0.6455 | 1.2238 | 1.23 |
| 21 | 1.2007 | 0.0000 | 0.0000 | 1.1833 | 1.1788 | 1.1139 | 1.1949 | 0.6523 | 1.2351 | 1.24 |
| 22 | 1.2007 | 0.0000 | 0.0000 | 1.1897 | 1.1836 | 1.1275 | 1.1965 | 0.6523 | 1.2418 | 1.24 |
| 23 | 1.1872 | 0.0000 | 0.0000 | 1.1704 | 1.1836 | 1.1094 | 1.1852 | 0.6455 | 1.2351 | 1.24 |
| 24 | 1.1353 | 0.0000 | 0.0000 | 1.0915 | 1.1386 | 1.0642 | 1.1144 | 0.6071 | 1.1672 | 1.16 |
| 25 | 1.2165 | 0.0000 | 0.0000 | 1.1543 | 1.1997 | 1.1298 | 1.1498 | 0.6455 | 1.2373 | 1.23 |
| 26 | 1.1646 | 0.0000 | 0.0000 | 1.1253 | 1.1707 | 1.1049 | 1.1370 | 0.6229 | 1.2238 | 1.21 |
| 27 | 1.0405 | 0.0000 | 0.0000 | 0.9804 | 1.0389 | 0.9513 | 0.9938 | 0.5394 | 1.0880 | 1.07 |
| 28 | 0.7245 | 0.0000 | 0.0000 | 0.6746 | 0.7365 | 0.6349 | 0.6883 | 0.3634 | 0.7487 | 0.76 |
| 29 | 0.6071 | 0.0000 | 0.0000 | 0.4781 | 0.6352 | 0.4994 | 0.5982 | 0.2505 | 0.6130 | 0.68 |

| THINBLE AVERAGE |        |        |        |        |        |        |        |        |      |  |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|------|--|
| 1.0884          | 1.0000 | 1.0000 | 1.0380 | 1.0745 | 1.0077 | 1.0654 | 0.5824 | 1.1367 | 1.13 |  |
| AXIAL PEAK      |        |        |        |        |        |        |        |        |      |  |
| 1.118           | 0.000  | 0.000  | 1.146  | 1.116  | 1.121  | 1.123  | 1.120  | 1.093  | 1.09 |  |
| AVERAGE * PEAK  |        |        |        |        |        |        |        |        |      |  |
| 1.217           | 0.000  | 0.000  | 1.190  | 1.200  | 1.130  | 1.196  | 0.652  | 1.242  | 1.24 |  |

Diagram 2.4.5

## Incore Power Distributions, Cycle 3

7730 MWD/MTU

|        |        |        |                 |        |        |        |        |        |        |
|--------|--------|--------|-----------------|--------|--------|--------|--------|--------|--------|
| 21 F11 | 22 N 5 | 23 J10 | 24 J 5          | 25 B 8 | 26 N10 | 27 C12 | 28 J 7 | 29 D 7 | 30 14  |
| 0.0000 | 0.5757 | 0.5234 | 0.5173          | 0.4735 | 0.5641 | 0.3685 | 0.5441 | 0.0000 | 0.3864 |
| 0.0000 | 0.7653 | 0.7817 | 0.7823          | 0.6629 | 0.7365 | 0.4690 | 0.7935 | 0.0000 | 0.4427 |
| 0.0000 | 0.8515 | 0.8678 | 0.9108          | 0.7576 | 0.8332 | 0.5751 | 0.9408 | 0.0000 | 0.5281 |
| 0.0000 | 1.0066 | 1.0399 | 1.0377          | 0.8867 | 0.9944 | 0.6784 | 1.0542 | 0.0000 | 0.6279 |
| 0.0000 | 1.0893 | 1.1002 | 1.0988          | 0.9590 | 1.0573 | 0.7386 | 1.1380 | 0.0000 | 0.6826 |
| 0.0000 | 1.1135 | 1.1346 | 1.1180          | 0.9934 | 1.0766 | 0.7645 | 1.1675 | 0.0000 | 0.7051 |
| 0.0000 | 1.1238 | 1.1346 | 1.1196          | 1.0072 | 1.0879 | 0.7645 | 1.1789 | 0.0000 | 0.7100 |
| 0.0000 | 1.0238 | 1.0313 | 1.0763          | 0.9642 | 1.0089 | 0.7214 | 1.1335 | 0.0000 | 0.6681 |
| 0.0000 | 1.0962 | 1.1054 | 1.1052          | 1.0072 | 1.0911 | 0.7507 | 1.1607 | 0.0000 | 0.6955 |
| 0.0000 | 1.1479 | 1.1518 | 1.1594          | 1.0503 | 1.1314 | 0.7731 | 1.2061 | 0.0000 | 0.7229 |
| 0.0000 | 1.1445 | 1.1777 | 1.1646          | 1.0640 | 1.1459 | 0.7799 | 1.2287 | 0.0000 | 0.7229 |
| 0.0000 | 1.1445 | 1.1691 | 1.1646          | 1.0623 | 1.1524 | 0.7782 | 1.2265 | 0.0000 | 0.7229 |
| 0.0000 | 1.1066 | 1.1174 | 1.1357          | 1.0158 | 1.1056 | 0.7645 | 1.1789 | 0.0000 | 0.7116 |
| 0.0000 | 1.1135 | 1.0830 | 1.1068          | 0.9986 | 1.0863 | 0.7507 | 1.1562 | 0.0000 | 0.6971 |
| 0.0000 | 1.1583 | 1.1346 | 1.1502          | 1.0451 | 1.1250 | 0.7817 | 1.2061 | 0.0000 | 0.7229 |
| 0.0000 | 1.1703 | 1.1467 | 1.1534          | 1.0589 | 1.1427 | 0.7903 | 1.2129 | 0.0000 | 0.7373 |
| 0.0000 | 1.1703 | 1.1518 | 1.1662          | 1.0589 | 1.1508 | 0.7903 | 1.2197 | 0.0000 | 0.7406 |
| 0.0000 | 1.1445 | 1.1346 | 1.1662          | 1.0451 | 1.1266 | 0.7731 | 1.2015 | 0.0000 | 0.7293 |
| 0.0000 | 1.1273 | 1.0916 | 1.1373          | 1.0072 | 1.0911 | 0.7558 | 1.1743 | 0.0000 | 0.6907 |
| 0.0000 | 1.1790 | 1.1604 | 1.1903          | 1.0761 | 1.1540 | 0.7954 | 1.2514 | 0.0000 | 0.7454 |
| 0.0000 | 1.2048 | 1.1914 | 1.2016          | 1.0916 | 1.1749 | 0.8075 | 1.2695 | 0.0000 | 0.7567 |
| 0.0000 | 1.2307 | 1.2035 | 1.2064          | 1.0967 | 1.1678 | 0.8127 | 1.2695 | 0.0000 | 0.7599 |
| 0.0000 | 1.1876 | 1.1777 | 1.2016          | 1.0795 | 1.1717 | 0.7954 | 1.2423 | 0.0000 | 0.7454 |
| 0.0000 | 1.1445 | 1.0916 | 1.1405          | 0.9900 | 1.0911 | 0.7386 | 1.1675 | 0.0000 | 0.7003 |
| 0.0000 | 1.1962 | 1.1691 | 1.2016          | 1.0589 | 1.1491 | 0.7817 | 1.2469 | 0.0000 | 0.7309 |
| 0.0000 | 1.1617 | 1.1604 | 1.1839          | 1.0416 | 1.1234 | 0.7507 | 1.2287 | 0.0000 | 0.7019 |
| 0.0000 | 1.0100 | 1.0313 | 1.0666          | 0.9125 | 0.9783 | 0.6474 | 1.0882 | 0.0000 | 0.6053 |
| 0.0000 | 0.6963 | 0.7094 | 0.7470          | 0.6370 | 0.6560 | 0.4459 | 0.7708 | 0.0000 | 0.4025 |
| 0.0000 | 0.6102 | 0.5062 | 0.6313          | 0.4477 | 0.4771 | 0.3943 | 0.6416 | 0.0000 | 0.3139 |
|        |        |        |                 |        |        |        |        |        |        |
| 1.0000 | 1.0750 | 1.0701 | THIMBLE AVERAGE | 1.0879 | 0.9675 | 1.0482 | 0.7206 | 1.1323 | 1.0000 |
|        |        |        |                 |        |        |        |        |        |        |
| 0.000  | 1.145  | 1.125  | AXIAL PEAK      | 1.109  | 1.134  | 1.133  | 1.128  | 1.121  | 0.000  |
|        |        |        |                 |        |        |        |        |        |        |
| 0.000  | 1.231  | 1.203  | AVERAGE * PEAK  | 1.206  | 1.097  | 1.188  | 0.813  | 1.270  | 0.000  |
|        |        |        |                 |        |        |        |        |        |        |
| 0.000  |        |        |                 |        |        |        |        |        | 0.760  |

Diagram 2.4.5

## Incore Power Distributions, Cycle 3

7730 MWD/MTU

| 31 F 2          | 32 F 9 | 33 N 7 | 34 A 9 | 35 N 12 | 36 R 8 | 37 H 4 | 38 H 11 | 39 D 5 | 40 L 6 |
|-----------------|--------|--------|--------|---------|--------|--------|---------|--------|--------|
| 0.3650          | 0.5066 | 0.4988 | 0.2364 | 0.2960  | 0.0000 | 0.3512 | 0.5548  | 0.5934 | 0.5870 |
| 0.5741          | 0.7478 | 0.7426 | 0.3699 | 0.4587  | 0.0000 | 0.6095 | 0.7317  | 0.7317 | 0.7574 |
| 0.6867          | 0.8604 | 0.8825 | 0.4599 | 0.5671  | 0.0000 | 0.8419 | 0.8298  | 0.8282 | 0.8764 |
| 0.8137          | 0.9826 | 1.0179 | 0.5355 | 0.6530  | 0.0000 | 0.9969 | 0.9761  | 0.9778 | 1.0212 |
| 0.8957          | 1.0694 | 1.1037 | 0.5902 | 0.7208  | 0.0000 | 1.0709 | 1.0437  | 1.0598 | 1.1016 |
| 0.9231          | 1.0823 | 1.1308 | 0.6111 | 0.7434  | 0.0000 | 1.0916 | 1.0726  | 1.1000 | 1.1177 |
| 0.9231          | 1.0823 | 1.1421 | 0.6191 | 0.7456  | 0.0000 | 1.0950 | 1.0807  | 1.1048 | 1.1177 |
| 0.8668          | 1.0212 | 1.0744 | 0.6063 | 0.7140  | 0.0000 | 1.0312 | 0.9617  | 0.9971 | 1.0373 |
| 0.9086          | 1.0566 | 1.1195 | 0.6063 | 0.7298  | 0.0000 | 1.0830 | 1.0356  | 1.0421 | 1.0694 |
| 0.9424          | 1.1016 | 1.1533 | 0.6272 | 0.7592  | 0.0000 | 1.1226 | 1.0566  | 1.0758 | 1.1144 |
| 0.9585          | 1.1193 | 1.1714 | 0.6352 | 0.7660  | 0.0000 | 1.1277 | 1.0694  | 1.0903 | 1.1289 |
| 0.9601          | 1.1289 | 1.1782 | 0.6352 | 0.7660  | 0.0000 | 1.1312 | 1.0694  | 1.0984 | 1.1305 |
| 0.9311          | 1.0984 | 1.1421 | 0.6256 | 0.7479  | 0.0000 | 1.1002 | 1.0517  | 1.0662 | 1.1016 |
| 0.9150          | 1.0533 | 1.1285 | 0.6079 | 0.7253  | 0.0000 | 1.0744 | 1.0421  | 1.0566 | 1.0855 |
| 0.9472          | 1.0887 | 1.1804 | 0.6384 | 0.7592  | 0.0000 | 1.1174 | 1.0839  | 1.1048 | 1.1337 |
| 0.9601          | 1.1080 | 1.1985 | 0.6384 | 0.7705  | 0.0000 | 1.1381 | 1.0935  | 1.1177 | 1.1418 |
| 0.9617          | 1.1177 | 1.1985 | 0.6384 | 0.7750  | 0.0000 | 1.1398 | 1.1016  | 1.1161 | 1.1418 |
| 0.9601          | 1.1032 | 1.1872 | 0.6224 | 0.7660  | 0.0000 | 1.1260 | 1.0807  | 1.1032 | 1.1225 |
| 0.9408          | 1.0694 | 1.1488 | 0.6063 | 0.7298  | 0.0000 | 1.0778 | 1.0533  | 1.0566 | 1.0839 |
| 0.9922          | 1.1402 | 1.2030 | 0.6465 | 0.7682  | 0.0000 | 1.1226 | 1.1161  | 1.1128 | 1.1514 |
| 1.0131          | 1.1756 | 1.2233 | 0.6706 | 0.7818  | 0.0000 | 1.1329 | 1.1305  | 1.1289 | 1.1707 |
| 1.0228          | 1.1820 | 1.2233 | 0.6754 | 0.7818  | 0.0000 | 1.1432 | 1.1354  | 1.1337 | 1.1820 |
| 1.0019          | 1.1498 | 1.2165 | 0.6674 | 0.7705  | 0.0000 | 1.1398 | 1.1177  | 1.1209 | 1.1659 |
| 0.9568          | 1.0566 | 1.1488 | 0.6143 | 0.7366  | 0.0000 | 1.0950 | 1.0533  | 1.0726 | 1.0855 |
| 1.0019          | 1.1354 | 1.2211 | 0.6433 | 0.7773  | 0.0000 | 1.1691 | 1.1209  | 1.1402 | 1.1466 |
| 0.9681          | 1.1177 | 1.2414 | 0.6095 | 0.7479  | 0.0000 | 1.1415 | 1.1112  | 1.1209 | 1.1337 |
| 0.8314          | 0.9922 | 1.0405 | 0.5291 | 0.6394  | 0.0000 | 1.0141 | 0.9820  | 0.9778 | 1.0131 |
| 0.5596          | 0.6915 | 0.7245 | 0.3618 | 0.4316  | 0.0000 | 0.7162 | 0.6867  | 0.6706 | 0.5500 |
| 0.4792          | 0.5050 | 0.6004 | 0.3136 | 0.3525  | 0.0000 | 0.6439 | 0.4744  | 0.4776 | 0.5066 |
| THIMBLE AVERAGE |        |        |        |         |        |        |         |        |        |
| 0.8871          | 1.0370 | 1.0962 | 0.5845 | 0.7020  | 1.0000 | 1.0410 | 1.0146  | 1.0265 | 1.0510 |
| AXIAL PEAK      |        |        |        |         |        |        |         |        |        |
| 1.153           | 1.140  | 1.132  | 1.156  | 1.114   | 0.000  | 1.123  | 1.119   | 1.111  | 1.125  |
| AVERAGE * PEAK  |        |        |        |         |        |        |         |        |        |
| 1.023           | 1.182  | 1.241  | 0.675  | 0.782   | 0.000  | 1.169  | 1.135   | 1.140  | 1.182  |

Diagram 2.4.5

## Incore Power Distributions, Cycle 3

7730 MWD/MTU

| 41 D10 | 42 G14 | 43 H13 | 44 C 8 | 45 H 3 | 46 N 8 | 47 E11 | 48 L11 | 49 E 5 | 50 L 5 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.5480 | 0.5757 | 0.0000 | 0.4464 | 0.4964 | 0.5435 | 0.5583 | 0.5593 | 0.5856 | 0.5457 |
| 0.8091 | 0.9170 | 0.0000 | 0.6705 | 0.6350 | 0.6988 | 0.8213 | 0.8123 | 0.8741 | 0.8152 |
| 0.9299 | 0.8653 | 0.0000 | 0.7865 | 0.7672 | 0.8024 | 0.9536 | 0.9412 | 0.9708 | 0.9511 |
| 1.0589 | 1.0066 | 0.0000 | 0.9445 | 0.9122 | 0.9836 | 1.0778 | 1.0734 | 1.1211 | 1.0666 |
| 1.1250 | 1.0928 | 0.0000 | 1.0121 | 0.9928 | 1.0578 | 1.1536 | 1.1395 | 1.1729 | 1.1345 |
| 1.1411 | 1.1273 | 0.0000 | 1.0412 | 1.0250 | 1.0750 | 1.1714 | 1.1588 | 1.1902 | 1.1572 |
| 1.1475 | 1.1307 | 0.0000 | 1.0444 | 1.0412 | 1.0940 | 1.1714 | 1.1588 | 1.1971 | 1.1617 |
| 1.0895 | 1.0669 | 0.0000 | 0.9654 | 0.9767 | 0.9922 | 1.1230 | 1.1024 | 1.1125 | 1.1232 |
| 1.1266 | 1.1100 | 0.0000 | 1.0266 | 0.9993 | 1.0526 | 1.1391 | 1.1250 | 1.1747 | 1.1458 |
| 1.1620 | 1.1273 | 0.0000 | 1.0621 | 1.0170 | 1.0905 | 1.1627 | 1.1588 | 1.2144 | 1.1798 |
| 1.1781 | 1.1376 | 0.0000 | 1.0750 | 1.0234 | 1.0940 | 1.1675 | 1.1685 | 1.2161 | 1.1821 |
| 1.1733 | 1.1410 | 0.0000 | 1.0879 | 1.0250 | 1.0940 | 1.1875 | 1.1717 | 1.2075 | 1.1843 |
| 1.1588 | 1.1238 | 0.0000 | 1.0460 | 1.0138 | 1.0578 | 1.1714 | 1.1572 | 1.1781 | 1.1572 |
| 1.1508 | 1.1156 | 0.0000 | 1.0379 | 1.0073 | 1.0578 | 1.1730 | 1.1395 | 1.1850 | 1.1458 |
| 1.2168 | 1.1617 | 0.0000 | 1.0750 | 1.0524 | 1.0957 | 1.2085 | 1.1878 | 1.2334 | 1.1911 |
| 1.2362 | 1.1755 | 0.0000 | 1.0911 | 1.0621 | 1.1181 | 1.2279 | 1.2039 | 1.2472 | 1.2025 |
| 1.2362 | 1.1755 | 0.0000 | 1.0943 | 1.0605 | 1.1130 | 1.2262 | 1.2088 | 1.2472 | 1.1911 |
| 1.2168 | 1.1631 | 0.0000 | 1.0782 | 1.0460 | 1.0923 | 1.2069 | 1.1927 | 1.2230 | 1.1843 |
| 1.1669 | 1.1359 | 0.0000 | 1.0524 | 0.9928 | 1.0612 | 1.1714 | 1.1524 | 1.1954 | 1.1526 |
| 1.2329 | 1.2048 | 0.0000 | 1.1072 | 1.0573 | 1.1181 | 1.2391 | 1.2039 | 1.2472 | 1.2206 |
| 1.2587 | 1.2221 | 0.0000 | 1.1201 | 1.0814 | 1.1216 | 1.2343 | 1.2184 | 1.2541 | 1.2251 |
| 1.2636 | 1.2221 | 0.0000 | 1.1185 | 1.0847 | 1.1250 | 1.2359 | 1.2217 | 1.2541 | 1.2251 |
| 1.2523 | 1.1952 | 0.0000 | 1.1008 | 1.0573 | 1.1043 | 1.2311 | 1.2201 | 1.2420 | 1.2251 |
| 1.1846 | 1.1359 | 0.0000 | 1.0524 | 0.9928 | 1.0526 | 1.1714 | 1.1830 | 1.1988 | 1.1572 |
| 1.2378 | 1.1928 | 0.0000 | 1.1072 | 1.0573 | 1.1250 | 1.2295 | 1.2458 | 1.2593 | 1.2296 |
| 1.2039 | 1.1531 | 0.0000 | 1.0911 | 1.0557 | 1.1043 | 1.2069 | 1.2394 | 1.2334 | 1.2070 |
| 1.0814 | 1.0152 | 0.0000 | 0.9477 | 0.9428 | 0.9577 | 0.7487 | 1.1072 | 1.0952 | 1.0666 |
| 0.7591 | 0.6963 | 0.0000 | 0.6447 | 0.6527 | 0.6471 | 0.7599 | 0.7849 | 0.7670 | 0.7609 |
| 0.6286 | 0.6274 | 0.0000 | 0.4803 | 0.4722 | 0.4745 | 0.6389 | 0.6076 | 0.6461 | 0.6363 |

|        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.1209 | 1.0859 | 1.0000 | 0.9980 | 0.9684 | 1.0177 | 1.1146 | 1.1164 | 1.1474 | 1.1155 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.127 | 1.125 | 0.000 | 1.122 | 1.120 | 1.105 | 1.112 | 1.116 | 1.098 | 1.102 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.264 | 1.222 | 0.000 | 1.120 | 1.085 | 1.125 | 1.239 | 1.246 | 1.259 | 1.230 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

REACTOR: Turkey Point 3

CYCLE: 3

Exposure 0 MWD/MTU

## TABLE 2.4 PWR OPERATING DATA

## PART C - PWR HOT-ZERO-POWER DATA

Sheet 1 of 2Rev. 0 Date: 4/5/77

| ITEM (Unit)                              | VALUE                       | SOURCE                                           | COMMENTS                            |
|------------------------------------------|-----------------------------|--------------------------------------------------|-------------------------------------|
| <u>PWR HZP DATA</u>                      |                             |                                                  |                                     |
| 1. Moderator Temperature (°F)            | 547                         | Summary Report of<br>the Turkey Point<br>Unit 3, | none                                |
| 2. Soluble poison concentration<br>(ppm) | 1170                        | Cycle 3 startup<br>physics measurements          | none                                |
| 3. Control rod configuration             | Bank D<br>190 steps         | Idem                                             | 228 steps equals<br>fully withdrawn |
| 4. Method of measurement                 | Inverse count<br>rate ratio | Idem                                             | none                                |
| 5. Type of measurement                   | Initial<br>Criticality      | Idem                                             | none                                |
| 6. Incore Traces                         | Not available               | Idem                                             | none                                |
| 7. System pressure (psia)                | 2100                        | Idem                                             | Nominal                             |
| 8. Measured Data                         | Initial<br>Criticality      | Idem                                             |                                     |
|                                          |                             |                                                  |                                     |

Verified By: AKYDate: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

Exposure 0 MWD/MTU

TABLE 2.4 PWR OPERATING DATA

PART C - PWR HOT-ZERO-POWER DATA

Sheet 2 of 2

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                  | VALUE                                                                                                                                                                                                            | SOURCE                                             | COMMENTS |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------|------|----------|------|------|--------|-----|--------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|------------------|---------------------------------------------|---|-----|---|------|---|-----|---|------|---|------|--|
| <u>PWR HZP DATA</u>                          |                                                                                                                                                                                                                  |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 1. Moderator Temperature                     | 547                                                                                                                                                                                                              | Summary Report of the Turkey Point Unit 3, Cycle 3 | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 2. Soluble poison                            | See Table                                                                                                                                                                                                        | Startup Physics Measurements                       | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 3. Control rod                               | See Table                                                                                                                                                                                                        | Idem                                               | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 4. Method of Measurement                     | Reactivity Computer-boron end point                                                                                                                                                                              | Idem                                               | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 5. Type of Measurement                       | Rod worth                                                                                                                                                                                                        | Idem                                               | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 6. Incore Traces                             | Not available                                                                                                                                                                                                    | Idem                                               | none     |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 7. System Pressure (psia)                    | 2100                                                                                                                                                                                                             | Idem                                               | Nominal  |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| 8. Measured Data                             | <table><tr><th colspan="2"><u>End Points</u></th></tr><tr><td>A-RO</td><td>1180 ppm</td></tr><tr><td>D-In</td><td>1118</td></tr><tr><td>D,C In</td><td>976</td></tr><tr><td>D,B In</td><td>893</td></tr></table> | <u>End Points</u>                                  |          | A-RO | 1180 ppm | D-In | 1118 | D,C In | 976 | D,B In | 893 | <table><tr><th colspan="2"><u>Rod Worths</u></th></tr><tr><th><u>Rod Group</u></th><th><u>Reactivity % <math>\Delta\rho</math></u></th></tr><tr><td>D</td><td>.60</td></tr><tr><td>C</td><td>1.34</td></tr><tr><td>B</td><td>.94</td></tr><tr><td>A</td><td>1.34</td></tr><tr><td>S</td><td>2.18</td></tr></table> | <u>Rod Worths</u> |  | <u>Rod Group</u> | <u>Reactivity % <math>\Delta\rho</math></u> | D | .60 | C | 1.34 | B | .94 | A | 1.34 | S | 2.18 |  |
| <u>End Points</u>                            |                                                                                                                                                                                                                  |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| A-RO                                         | 1180 ppm                                                                                                                                                                                                         |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| D-In                                         | 1118                                                                                                                                                                                                             |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| D,C In                                       | 976                                                                                                                                                                                                              |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| D,B In                                       | 893                                                                                                                                                                                                              |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| <u>Rod Worths</u>                            |                                                                                                                                                                                                                  |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| <u>Rod Group</u>                             | <u>Reactivity % <math>\Delta\rho</math></u>                                                                                                                                                                      |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| D                                            | .60                                                                                                                                                                                                              |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| C                                            | 1.34                                                                                                                                                                                                             |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| B                                            | .94                                                                                                                                                                                                              |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| A                                            | 1.34                                                                                                                                                                                                             |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| S                                            | 2.18                                                                                                                                                                                                             |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |
| Verified By: <u>STL</u> Date: <u>4/29/77</u> |                                                                                                                                                                                                                  |                                                    |          |      |          |      |      |        |     |        |     |                                                                                                                                                                                                                                                                                                                    |                   |  |                  |                                             |   |     |   |      |   |     |   |      |   |      |  |

Verified By: PRZ Date: 4/29/77

REACTOR: Turkey Point 3

CYCLE: 3

TABLE 2.4 PWR OPERATING DATA

PART D - PWR TRANSIENT DATA

Sheet 1 of 1

Rev. 0 Date: 4/5/77

| ITEM (Unit)                                                                                                                                             | VALUE | SOURCE         | COMMENTS |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|----------|
| <u>PWR Transient Data</u><br>Conditions during the transient<br>(in time intervals sufficient<br>to monitor the Xenon transient<br>also time-zero data) |       |                |          |
|                                                                                                                                                         |       |                |          |
|                                                                                                                                                         |       |                |          |
| 1. Core power (MWT)                                                                                                                                     |       | NONE AVAILABLE |          |
| 2. Inlet temperature (°F)                                                                                                                               |       |                |          |
| 3. Soluble poison concentration (ppm)                                                                                                                   |       |                |          |
| 4. System pressure (psia)                                                                                                                               |       |                |          |
| 5. Total core flow (10 <sup>6</sup> lbs/hr)                                                                                                             |       |                |          |
| 6. Control rod positions (by location)                                                                                                                  |       |                |          |
|                                                                                                                                                         |       |                |          |

Verified By: BZ9 Date: 12/23/77

