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ENGINEERING DATA TRANSMITTAL

Page 1 of 1

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16. KEY

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E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 4. Review 2. Release 5. Post-Review 3. Information 6. Dist. (Receipt Acknow. Required)	1. Approved 4. Reviewed no/comment 2. Approved w/comment 5. Reviewed w/comment 3. Disapproved w/comment 6. Receipt acknowledged

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(G) Reason	(H) Disp.	(J) Name (K) Signature (L) Date (M) MSIN	(G) Reason	(H) Disp.	(J) Name (K) Signature (L) Date (M) MSIN
1,2	1	Design Authority MC TEATS MC Teats 1-4-99 S6-72	1,2	1	Operations DK SMITH DK Smith 1/18/99 S6-76
1,2	1	Design Agent MC TEATS MC Teats 1/4/99 S6-72	1,2	1	Operation JL Foster JL Foster 1/15/99 S6-74
1,2	1	Cog.Eng. MC TEATS MC Teats 1/4/99 S6-72			
1,2	1	Cog. Mgr. NJ SULLIVAN NJ Sullivan 1-4-99 S6-72			
1,2	1	QA MJ WARN MJ Warn 1/12/99			
		Safety			
		Env.			

18.	19.	20.	21. DOE APPROVAL (if required) Ctrl. No. N/A
MC Teats 1/4/99 Signature of EDT Originator Date	Authorized Representative for Receiving Organization Date	NJ Sullivan 1-18-99 Design Authority/ Cognizant Manager Date	[ ] Approved [ ] Approved w/comments [ ] Disapproved w/comments

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242A DISTRIBUTED CONTROL SYSTEM YEAR 2000 ACCEPTANCE TEST REPORT

M.C. TEATS
WASTE MANAGEMENT HANFORD, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

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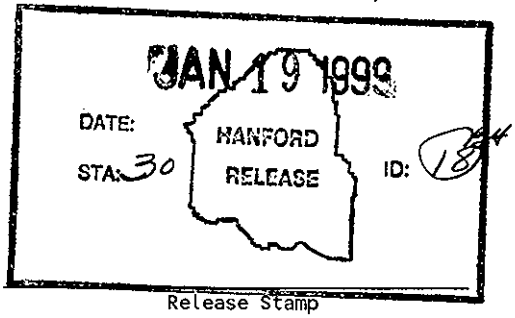
Abstract: This report documents acceptance test results for the 242-A Evaporator distributive control system upgrade to D/3 version 9.0-2 for year 2000 compliance.

Release Approval 1/19/99 Date



Release Stamp

Approved for Public Release

242A DISTRIBUTED CONTROL SYSTEM

YEAR 2000

ACCEPTANCE TEST REPORT

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ACCEPTANCE TEST REPORT SUMMARY

This test was performed per HNF-2695, 242A DISTRIBUTED CONTROL SYSTEM YEAR 2000 ACCEPTANCE TEST PROCEDURE. Two tests were performed; one on the original non-compliant system to provide baseline data, and the second on a system that was upgraded to be Year 2000 compliant.

Results of the baseline testing of the non-compliant system are documented on pages 15 through 59 and exceptions are documented in Attachment 3 (pages 107 to 110). All of these exceptions were resolved by the upgrade to the Year 2000 compliant system.

Results of the testing of the upgraded system are documented on pages 62 through 106. Samples of the system data are documented in Attachment 5 (pages 113 to 158). There were no Year 2000 related exceptions exposed during testing. All displays, data, directories, and file contents correctly depicted the dates and times. All archived alarm and historical data files were created correctly, and the display of archived data performed without flaw. All systems functioned normally.

During testing of the upgraded system, two minor exceptions (see Attachment 4, pages 111 to 112) were exposed that are not related to the time/ date issue. These are not detrimental to the system operation. The first of these exceptions has already been fixed. The second exception involves the display of tag names and their descriptions to operators when running the C program that generates a list of inhibited alarms. The tag names are correctly displayed, but not all descriptions are displayed correctly. The resolution is to accept this as-is for the procurement, but resolve the programming problem as time permits after installation at the 242-A Evaporator.

ACCEPTANCE TEST PROCEDURE APPROVALS:

MC Geats Cognizant Engineer	DATE: 1-4-99
[signature] Cognizant Engineering Manager	DATE: 1-5-99
[signature] 242-A Operations	DATE: 1/15/99 1/18/99
[signature] Quality Assurance	DATE: 1/12/99

1. INTRODUCTION

1.1. Purpose

This report documents the test results obtained by acceptance testing as directed by procedure HNF-2695. This verification procedure will document the initial testing and evaluation of the potential 242-A Distributed Control System (DCS) operating difficulties across the year 2000 boundary and the calendar adjustments needed for the leap year. Baseline system performance data will be recorded using current, as-is operating system software. Data will also be collected for operating system software that has been modified to correct year 2000 problems.

1.2. Scope

This verification procedure is intended to be generic such that it may be performed on any D/3™ (GSE Process Solutions, Inc.) distributed control system that runs with the VMS™ (Digital Equipment Corporation) operating system. This test may be run on simulation or production systems depending upon facility status. On production systems, DCS outages will occur nine times throughout performance of the test. These outages are expected to last about 10 minutes each.

1.3. Assumptions

If adverse symptoms are observed when the test is executed on a simulation system, it will be assumed that these same symptoms will occur on the corresponding production system.

1.4. Overview

This document addresses testing of the vendor software for the 242-A Evaporator DCS. The evaporator concentrates low-heat-generating liquid wastes, reducing the volume and the number of double-shell tanks required to store the liquid wastes. This facility is monitored and controlled by a D/3™ DCS. The facility production system consists of the following hardware devices (see Figure 1).

- 2 Display Control Modules (DCMs), CDCM and DCM
- 2 1 Gigabyte hard drives, one for each DCM
- 2 800 Megabyte hard drives, one for each DCM
- 4 Process Control Modules (PCMs); PCM0A, PCM0B, PCM1A, and PCM1B
- 11 Multiplexer cabinets for input and output
- 4 operator control stations (CDCM OCM 0; CDCM OCM 1, DCM0 OCM 0, and DCM0 OCM 1)
- 5 typers (CDCM OPA0, DCM0 OPA0, CDCM TXA0, DCM0 TXA0, and CDCM TTA1) for alarm and report documentation
- 1 to 3 VT-220 Programming Terminals and Keyboards
- 1 PC (PC TERM) for building graphics 0
- 1 Color Printer (CP) for color copying displays
- 1 Versatec™ (Versatec Corp.) color copier and controller
- 1 Vaxstation 4000-60 Engineers terminal (VAX TERM)

The simulation system runs the same software versions as the production system, but with fewer hardware components.

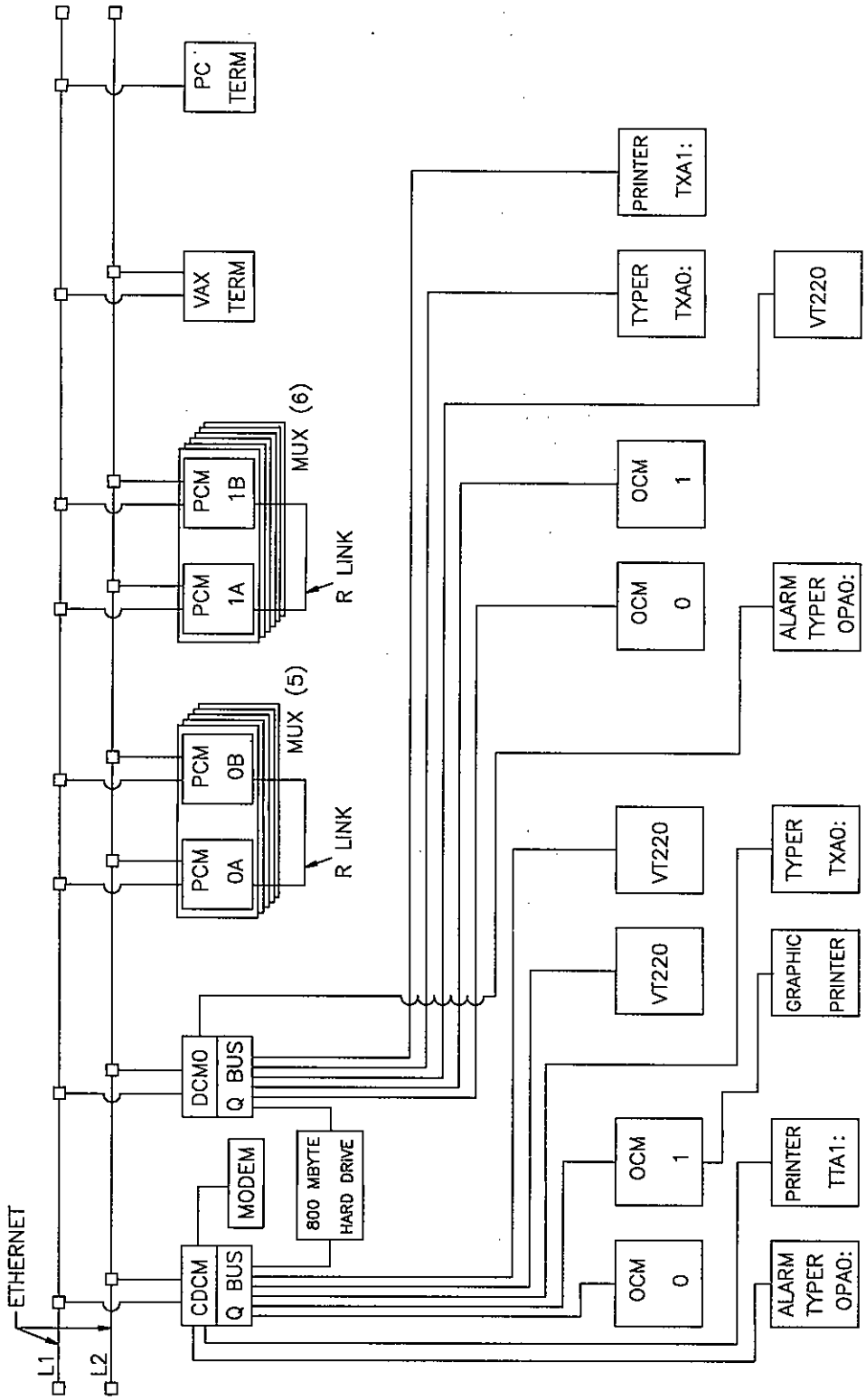

FIGURE 1: SYSTEM ARCHITECTURE

The two display control modules (DCMs), CDCM and DCM0, are VAX 4000-105A computers with VMS™ as the operating system. These computers also run numerous D/3™ tasks required for overall system functionality. The CDCM normally provides the system wide time and date used by the other processors. This function defaults to the backup processors, DCM0 followed by the Process Control Modules (PCMs), when the CDCM D/3™ software is not running.

The PCMs are microprocessors that contain the D/3™ tasks that execute facility controls based on the 242-A Evaporator databases, programs, and operator actions. There are two PCM0 microprocessors, PCM0A and PCM0B, which are configured as redundant units and have identical capabilities. Both microprocessors run continuously, with one performing the process control functions while the other is held in reserve as the backup. In the event that the controlling microprocessor fails, the backup takes over control of the process without loss of control continuity. Likewise, there are two redundant PCM1 microprocessors, PCM1A and PCM1B. The PCMs provide time and date stamps on messages they generate, but this time and date is normally obtained from the CDCM or another polling master if the CDCM's D/3™ software is not running.

Field input and output (I/O) signals are connected to the system in the PCM multiplexer (MUX) cabinets. There are a total of 11 MUX cabinets. Two of these cabinets contain the PCMs and some of the I/O terminations. The other 9 cabinets contain the remaining I/O hardware and signal terminations. The multiplexers provide signal scanning and conditioning functions.

The Operator Console Modules (OCMs) and Vaxstation are the human interface with the plant equipment. They provide the operator with system, faceplate, graphic, trend, and alarm summary displays. They permit password protected access to control and alarm functions. Two OCMs are connected to each DCM. The displays and databases for each work station are generic in nature so that facility information can be obtained at any station.

1.5. Definitions

The following terms used within this document are defined as follows.

Acceptance Test - Formal testing conducted to determine whether or not a system satisfies its acceptance criteria and to enable the customer to determine whether or not to accept the system. (IEEE Std. 610.12-1990).

Configurator Display Control Module (CDCM) - VAX computer system designated for configuration of the control system databases on the network. Contains all software and source code needed to run the 242-A process. Drives Operator Console Modules and supports alarm typers. Provides graphic displays and processes operator issued commands for all functions within the network containing the CDCM.

Display Control Module 0 (DCM0) - VAX computer system. Drives Operator Console Modules and supports alarm typers. Provides graphic displays and processes operator issued commands for all functions within the network containing DCM0.

MCS cognizant engineer - The engineer responsible for the 242-A control system who is assigned the principal responsibility for the development of new or changes to existing computer software.

Multiplexer (MUX) - The device that routes multiple process instrumentation signals to the microcomputer unit of the PCM and sends control signals from the PCM microcomputer unit to multiple process control elements.

Operator Console Module (OCM) - The operator interface to the process.

Process Control Module (PCM) - Performs all process control and data acquisition functions as specified in the application software. The PCM is capable of reading input signals, providing outputs, processing data, performing continuous control and logic functions, performing batch control, and executing user-generated C-language programs.

Q Bus - The bus backplane structure and control card for a minicomputer system that interfaces the processor to the communications network.

VAX - Computers manufactured by Digital Equipment Corporation that are used as host computers on the D/3™ network.

VMS - Virtual Memory operating System. The operating system used on the VAX.

2. TEST PLAN

2.1. Test Items

Hardware and software items will be tested. Hardware items tested will include all DCM and PCM processors. This hardware is tested by virtue of the fact that they are running the software to be tested. In general, software items tested include portions of the VMS™ and D/3™ systems that use time and date information.

Specific operating system items to be tested include:

- VMS™ login time and date stamp
- Creation date and time on newly created software files
- Scheduled task execution (totalizer reset)
- Time clock on DCMs
- Authorize Utility time and date stamp
- C-compiler listing time and date stamp

The D/3™ alarm items to be tested includes:

- Historical file time and date stamps
- Historical file names
- Time and date stamp on alarm printouts
- Time and date stamp in alarm history file
- Time and date stamp on alarm summary pages
- Chronological presentation on alarm summary pages
- Alarm acknowledgment
- Clearing of alarms

Other D/3™ time and date functions to be tested includes:

- Presentation of time and date on OCM screens
- SABL timing functions (fhold)
- Collection and display of current and historical trend information
- Operation of historical data archive task
- Operation of report programs

Other general DCS functions that will be tested includes:

- Sequence programs
- Device logic
- Alarm inhibit C-program
- MCS operation via system status and P3 displays
- Operator keyboard display of old historical data
- Shutdown of DCMs
- Reboot of DCMs
- COD Utility time and date stamp
- MOD Utility time stamp
- MTS Utility time and date stamp
- SIC Compiler listing time and date stamp
- MEAT Utility time and date stamp
- Serial number from complete applications rebuild

2.2. Features to Test / Not Test

All features to be tested involve the time and date stamp that the D/3™ and VMS™ systems attach to various displays, data, and data files. In most cases, this will be verified by viewing this information for correctness. Other methods of verification include system and module functionality.

2.3. Deliverables

All test data will be incorporated into an acceptance test report and released as a supporting document in accordance with engineering procedures. Test data will include the signed procedure steps in this document, all test discrepancy log sheets (Attachment 2), and where possible any test results which can be captured from screen displays or data files.

2.4. Acceptance Criteria And Discrepancy Handling

Test acceptance criteria is provided in Attachment 1. Testing shall be 100% qualitative.

All test discrepancies that are observed during the performance of procedures in this document shall be logged using Attachment 2.

2.5. Test Preparation, Tasks, and Skills

Baseline testing activities shall be conducted on the simulation system. In preparation for these activities, the Evaporator simulation program shall be stopped. No other special preparations are necessary for testing to commence on this system.

Testing on the production system requires that applicable vendor supplied code be modified and built prior to performing the test. A prerequisite for modifying vendor programs is that vendor services be obtained to identify all software that must be modified, and that system backup media be prepared or verified in place. No other DCS preparations are necessary.

Any Unreviewed Safety Question (USQ) documentation must be completed before testing on the production system can begin. Testing will be coordinated with Shift Operation Managers.

The following is a summary of tasks that must be completed for testing to commence:

- Simulation program stopped (baseline testing on simulator only)

- Obtain vendor services to identify modification software (production system only)
- Prepare or verify backup media of all effected hard drives (production system only)
- Modify applicable software (production system only)
- Compile applicable software (production system only)
- Load new software (production and/or simulator systems)
- Complete any USQ documentation (production system only)

All test and test preparation activities identified in this procedure shall be conducted and documented by engineers and/or computer specialists experienced in the operation and maintenance of the D/3™ DCS.

2.6. Environmental Needs

The time required to complete testing is about one shift for the simulation system and one to two shifts for the production system. Testing on the simulator will be done using the current baseline versions of the operating systems. Testing on the production system will require operating systems that have been modified to resolve the year 2000 problem. There are no other special personnel, equipment, or configuration requirements.

2.7. Responsibilities

The MCS cognizant engineer is responsible for documenting, managing, designing, preparing, and executing the tests, and resolving test-related issues.

2.8. Staffing and Training

This procedure shall be conducted and documented by engineers and/or computer specialists experienced in the operation and maintenance of the D/3™ DCS. There are no other special staffing and training requirements other than those provided by the MCS cognizant engineer.

2.9. Schedule

Test plans and procedures contained in this document shall be issued by June 15, 1998. Testing will take place shortly thereafter and is contingent upon the completion of the vendor's evaluation of the 242-A control system to define the year-2000 software modifications that are required. It is expected that the vendor assessment will be completed in June. Testing will take about one day for the simulator system and one day for the production system. There are no milestones associated with these activities.

2.10. Risks and Contingencies

There are no high risk assumptions in the test plan. A low risk assumption is that vendor-supplied software, which was previously tested at the factory by vendor personnel, can be successfully compiled and executed on the 242-A DCS. If the new vendor software is determined to be inadequate or inferior to the former version, the contingency plan is to restore the original software, which is maintained on backup media.

3. TEST DESIGN

3.1. Approach

Testing shall be completely qualitative using the criteria in Attachment 1. The systems shall be found to either pass verification of correctness or not pass verification of correctness on each of the items tested. Baseline testing shall be used a) to define any unacceptable anomalies before proceeding with testing on the production system, b) for comparing the performances of original and modified software, and c) as a method to refine estimated outages of the production system. Testing on the production system shall be used to verify the adequacy of vendor-supplied software modifications and overall system performance.

3.2. Pass / Fail Criteria

Other than the criteria defined in Attachment 1, there are no other criteria that may be used to accept or reject the new software version. Overall system performance and acceptability is the responsibility of the MCS cognizant engineer.

4. TEST CASES

Systems will be tested with the following minimal sets of dates to provide pre-year-2000 data, post-year-2000 data, and ensure the systems function properly. Fiscal year dates will not be tested on the 242-A control systems because these systems do not run applications that require fiscal year dates or data.

TEST DATES	PURPOSE	SECTION
Current Date in 1998	pre-year-2000 operation	6
12/31/98 to 1/1/99	pre-year-2000 transition	7
9/8/99 to 9/9/99	tests 9999	8
12/31/99 to 1/1/2000	tests change of millennium	9
2/28/2000 to 2/29/2000	tests recognition of leap year	10
2/29/2000 to 3/1/2000	verify does not go to February 30, 31	11
12/30/2000 to 12/31/2000	verify year 2000 has 366 days	12
2/28/2001 to 3/1/2001	verify does not go to February 29	13
Any date after 2000	cold startup operation	14
Current Date in 1998	system restoration	15

In addition, one baseline test run will be conducted on the simulation system using current, unmodified operating system software. Another test run will be made on the production or simulation system using modified operating system software.

5. PROCEDURE- SIMULATION SYSTEM RESULTS

5.1. Setup and Initial Conditions

5.1.1. For simulation system, VERIFY simulation program stopped. Write N/A if production system shall be tested at this time.

Initials: MT 6-10-98

5.1.2. For production system, VERIFY the following (Write N/A if simulation system shall be tested at this time):

5.1.2.1. Backup CDCM and DCM0 before vendor software changed

Initials: N/A MT 6-10-98

5.1.2.2. Modify vendor software

Initials: N/A MT 6-10-98

5.1.2.3. Compile vendor software

Initials: N/A MT 6-10-98

5.1.2.4. Load new software to CDCM and DCM0

Initials: N/A MT 6-10-98

5.1.2.5. Complete any USQ documentation

Initials: N/A MT 6-10-98

5.2. Prerequisite

Document the DCS system by recording the following information:

SYSTEM (Check One): [X] Simulator [ ] Production

D/3™ VERSION: 6.3-3

DATE OF TEST: 6-10-98

CHECK ONE OF THE FOLLOWING SYSTEM STATUSES:

[X] Original, Unmodified D/3™ Version (BASELINE)

[ ] D/3™ Version With Modified GSE System Patches

LIST OF GSE PATCH NUMBERS (N/A If None): N/A MT

FILL IN THE FOLLOWING SYSTEM INFORMATION:

	HARDWARE	OPERATING SYSTEM & VERSION	OPERATOR DISPLAY AVAILABLE (Y/N)
CDCM	VAX 4000-105	VMS 5.5-2AH (1)	OCM II / VXT 2000
DCM	N/A	N/A	N/A
WORKSTATIONS	N/A	N/A	N/A
PCM	PCM100-TI505	D/3 6.3-3	N/A
NETWORK	ETHERNET-DECNET	N/A	N/A

NOTE: Throughout the test if possible, capture all terminal output to a printer or a file in order to document events. Also, when possible, print a screen copy of the operator console display to document operation of the system each time a display is checked as part of the test. (1) With ΔTime Limit Patch

6. SYSTEM OPERATION BEFORE ALTERING DATE AND TIME

6.1. Alarm And Associated Time And Date Information (D/3™)

6.1.1. COPY as necessary alarm history files and historical data files into SAVE directories.

Initials: MT 6-10-98

6.1.2. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 6-10-98

6.1.3. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.1.4. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6-10-98

6.1.5. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6-10-98

6.1.6. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: II-EXC-1

Initials: MT 6-10-98

6.1.7. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMØ STATUS OFFLINE

Initials: MT 6-10-98

6.1.8. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.1.9. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.1.10. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

6.1.11. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

6.1.12. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.1.13. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.1.14. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6-10-98

6.1.15. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6-10-98

6.1.16. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6-10-98

6.2. Time and Date Functions (D/3™)

6.2.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.2.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6-10-98

6.2.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00". CHECKS GETDATE, GETTIME, DATE

NOTE: DAY OF WEEK = 3 (WED)

Initials: MT 6-10-98

6.2.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.2.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6-10-98

6.2.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.2.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6-10-98

6.2.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~, and HISTDAT, HISTMON, or HISTMAX).

① MT 6-10-98

Report Name: BALANCE, HISTDAT

① Not Available On Simulator
USE BALANCE.C INSTEAD

Initials: MT 6-10-98

6.3. Time and Date Functions (Operating System)

6.3.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98

6.3.2. LOGOUT from the terminal.

Initials: MT 6-10-98

6.3.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98

6.3.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6-10-98

6.3.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6-10-98

6.3.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6-10-98

6.3.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6-10-98

6.3.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6-10-98

6.3.9. LOGOUT from the engineering workstation.

Initials: MT 6-10-98

6.4. General DCS Functionality (D/3™)

6.4.1. VERIFY Sequence and Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 6-10-98

6.4.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6-10-98

6.4.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 6-10-98

6.4.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6-10-98

6.4.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6-10-98

6.4.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6-10-98

6.4.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6-10-98

6.4.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.4.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6-10-98

6.4.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.4.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

6.4.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".
NOTE: USE 'EN' SWITCH.

Initials: MT 6-10-98

6.4.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

10:11

Initials: MT 6-10-98

6.4.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6-10-98

6.4.15. SET TIME forward on the CDCM to December 31, 1998 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification of year 1999 operation.

Initials: MT 6-10-98

6.4.16. COPY historical data files to dummy test files of format "UNITymm.30C", "UNITymm.30D", "UNITymm.30H", and "UNITymm.30X" for December 31, 1998, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification of year 1999 operation.

10:20

Initials: MT 6-10-98

6.4.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes System Operation Before Altering Date and Time.

Initials: MT 6-10-98
10:21

7. SYSTEM OPERATION IN TRANSITION TO YEAR 1999

7.1. General Operation

7.1.1. OBSERVE system functional throughout the transition to the year 1999.

Initials: MT 6-10-98 10:32

7.2. Alarm And Associated Time And Date Information (D/3™)

7.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 6-10-98

7.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6-10-98

7.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6-10-98

7.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6-10-98

7.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMCIA STATUS OFFLINE

Initials: MT 6-10-98

7.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

7.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

7.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6-10-98

7.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6-10-98

7.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6-10-98
10:52

7.3. Time and Date Functions (D/3™)

7.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6-10-98

7.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".
NOTE: DAY OF WEEK = 5 (FRI) FOR 1-JAN-99

Initials: MT 6-10-98

7.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6-10-98

7.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6-10-98

7.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL~~, ~~REPORT-WRITER~~, and HISTDAT, HISTMON, or HISTMAX).
① MT 6-10-98

Report Name: BALANCE

HISTDAT

① NOT AVAILABLE ON SIMULATOR. USE BALANCE INSTEAD

Initials: MT 6-10-98 11:05

7.4. Time and Date Functions (Operating System)

7.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98

7.4.2. LOGOUT from the terminal.

Initials: MT 6-10-98

7.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98

7.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6-10-98

7.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM. 11:25

Initials: MT 6-10-98

7.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6-10-98

7.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6-10-98

7.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6-10-98

7.4.9. LOGOUT from the engineering workstation.

Initials: MT 6-10-98

7.5. General DCS Functionality (D/3™)

7.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 6-10-98

7.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6-10-98

7.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 6-10-98

7.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6-10-98

7.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6-10-98

7.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6-10-98

7.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6-10-98

7.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6-10-98

7.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

7.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

NOTE: USE "EN" SWITCH

Initials: MT 6-10-98

7.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

11:44

Initials: MT 6-10-98

7.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6-10-98

7.5.15. SET TIME forward on the CDCM to September 8, 1999 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification of four-nines operation.

Initials: MT 6-10-98

7.5.16. COPY historical data files to dummy test files of format "UNITymm.07C", "UNITymm.07D", "UNITymm.07H", and "UNITymm.07X" for September 8, 1999, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification of four-nines operation.

Initials: MT 6-10-98

7.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes Transition to 1999.

Initials: MT 6-10-98
11:51

8. SYSTEM OPERATION IN TRANSITION TO SEPTEMBER 9, 1999

8.1. General Operation

8.1.1. OBSERVE system functional throughout the transition to September 9, 1999.

Initials: MT 6-10-98 12:10

8.2. Alarm And Associated Time And Date Information (D/3™)

8.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000". 12:42

Initials: MT 6-10-98

8.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6-10-98

8.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102 (HI)

Initials: MT 6-10-98

8.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 (LO)

Initials: MT 6-10-98

8.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMD STATUS OFFLINE

Initials: MT 6-10-98

8.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

8.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6-10-98

8.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6-10-98

8.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6-10-98

8.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6-10-98
12:57

8.3. Time and Date Functions (D/3™)

8.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6-10-98

8.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

NOTE: DAY OF WEEK = 4 (THUR) For 9/9/99 Initials: MT 6-10-98

8.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6-10-98

8.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6-10-98

8.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT~~ WRITER; and HISTDAT, HISTMON, or HISTMAX).
① MT 6-10-98

Report Name: BALANCE

~~HISTDAT~~

① Unavailable. Use BALANCE instead.

Initials: MT 6-10-98 1:27

8.4. Time and Date Functions (Operating System)

8.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98 1:28

8.4.2. LOGOUT from the terminal.

Initials: MT 6-10-98

8.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6-10-98

8.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6-10-98

8.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6-10-98

8.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6-10-98

8.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6-10-98

8.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6-10-98

8.4.9. LOGOUT from the engineering workstation.

Initials: MT 6-10-98 1:35

8.5. General DCS Functionality (D/3™)

8.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43. 1:37

Initials: MT 6-10-98

8.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6-10-98

8.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 6-10-98

8.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6-10-98

8.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6-10-98

8.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6-10-98

8.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6-10-98

8.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6-10-98

8.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6-10-98

8.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6-10-98

8.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6-10-98

8.5.15. SET TIME forward on the CDCM to December 31, 1999 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification of year 2000 operation.

Initials: MT 6-10-98

8.5.16. COPY historical data files to dummy test files of format "UNITymm.30C", "UNITymm.30D", "UNITymm.30H", and "UNITymm.30X" for December 31, 1999, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification of year 2000 operation.

Initials: MT 6-10-98

8.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes four-nines verification.

Initials: MT 6-10-98
2:10

9. SYSTEM OPERATION IN TRANSITION TO YEAR 2000

9.1. General Operation

9.1.1. OBSERVE system functional throughout the transition to January 1, 1999.

Initials: MT 6/10/98 2:14

9.2. Alarm And Associated Time And Date Information (D/3™)

9.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000". #1

Initials: EXCEPTION ~~9.2.1~~ MT 6/10/98

9.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00". #2

Initials: EXCEPTION ~~9.2.2~~ MT 6/10/98

9.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: ~~RSH-AL~~ RSH-UVALP

Initials: MT 6/10/98 2:29

9.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6/10/98

9.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6/10/98

9.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMO STATUS OFFLINE

Initials: MT 6/10/98

9.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/10/98 2:47

9.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/10/98

9.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6/10/98

9.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6/10/98

9.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6/10/98
2:54

9.3. Time and Date Functions (D/3™)

9.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

NOTE! IS "YY" OF "ØØ", NOT "??"

Initials: MT 6/10/98

9.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/10/98

9.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

NOTE: DAY OF WEEK IS = 6 (SAT)

Initials: EXCEPTION #3

9.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/10/98

9.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

NOTE: AFTER 24 HR WILL BE EXCEPTION #2 (?? FOR YY)

Initials: MT 6/10/98

9.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

NOTE: TIME PERMITTING WILL GET EXCEPTION.

Initials: MT 6/10/98

9.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT~~ WRITER; and HISTDAT, HISTMON, or HISTMAX).

① MT 6/10/98

Report Name: BALANCE (GIVES "00")

HISTDAT (COLLECT FROM 12/31/99)

① NOT Available ON Simulator.

Initials: MT 6/10/98

9.4. Time and Date Functions (Operating System)

9.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

HAS 4 DIGIT YEAR 2000

Initials: MT 6/10/98 3:16

9.4.2. LOGOUT from the terminal.

Initials: MT 6/10/98

9.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

NOTE: HAS 2000 AS 4 DIGIT YEAR

Initials: MT 6/10/98

9.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6/10/98

9.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6/10/98

9.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

HAS 4 DIGIT YEAR 2000

Initials: MT 6/10/98

9.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6/10/98

9.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6/10/98

9.4.9. LOGOUT from the engineering workstation.

Initials: MT 6/10/98 3:30

9.5. General DCS Functionality (D/3™)

9.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43. 3:32

Initials: MT 6/10/98

9.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6/10/98

9.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 6/10/98

9.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6/10/98

9.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6/10/98

9.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6/10/98

9.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6/10/98

9.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

NOTE: HAS "00" FOR "YY"

Initials: MT 6/10/98

9.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6/10/98

9.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

9.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/10/98

9.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00". 3:52

Initials: MT 6/10/98

9.5.13. If testing on production system, WRITE N/A in sign-off spaces below and SKIP this step. If testing on simulation system, COMPLETE this step, Applications Rebuild.

9.5.13.1. REBUILD all applications. START 3:55, 6/10/98 7:29 done

Initials: MT 6/11/98

9.5.13.2. RESET and RELOAD PCMs.

Initials: MT 6/11/98

9.5.14. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6/11/98

9.5.15. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6/11/98

9.5.16. SET TIME forward on the CDCM to February 28, 2000 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification of initial leap year recognition.

Initials: MT 6/11/98

9.5.17. COPY historical data files to dummy test files of format "UNITymm.27C", "UNITymm.27D", "UNITymm.27H", and "UNITymm.27X" for February 28, 2000, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification of initial leap year recognition.

Initials: MT 6/11/98

9.5.18. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes year 2000 verification.

Initials: MT 6/11/98
8:57

10. SYSTEM OPERATION DURING INITIAL LEAP YEAR RECOGNITION

10.1. General Operation

10.1.1. VERIFY system recognizes February 29, 2000.

Initials: MT 6/11/98

10.1.2. VERIFY serial number (after complete applications rebuild) in MOD utility has correct format.

Initials: EXCEPTION #2

10.1.3. VERIFY general D/3™ functionality following complete applications rebuild.

Initials: MT 6/11/98

10.1.4. OBSERVE system functional throughout the transition to February 29, 2000.

Initials: MT 6/11/98

10.2. Alarm And Associated Time And Date Information (D/3™)

10.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

MT 6/11/98

Initials: EXCEPTION ~~#2~~ #1

10.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6/11/98

10.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6/11/98

10.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6/11/98

10.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCM0 STATUS OFFLINE

Initials: MT 6/11/98

10.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

MT 6/11/98

Initials: ~~EXCEPTION #2~~

10.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

10.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6/11/98

10.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6/11/98

10.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6/11/98

10.3. Time and Date Functions (D/3™)

10.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

HAS "00" FOR YEAR "YY"

Initials: MT 6/11/98

10.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/11/98

10.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #3

10.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

10.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6/11/98

10.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT~~ WRITER; and HISTDAT, HISTMON, or HISTMAX).
① MT 6/11/98

Report Name: BALANCE

HISTDAT

① Not Available on Simulator. Use Balance & Histdat instead.

Initials: MT 6/11/98

10.4. Time and Date Functions (Operating System)

10.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

HAS 4 DIGIT YEAR

Initials: MT 6/11/98

10.4.2. LOGOUT from the terminal.

Initials: MT 6/11/98

10.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

HAS 4 DIGIT YEAR

Initials: MT 6/11/98

10.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6/11/98

10.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6/11/98

10.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

HAS 4 DIGIT YEAR

Initials: MT 6/11/98

10.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6/11/98

10.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6/11/98

10.4.9. LOGOUT from the engineering workstation.

Initials: MT 6/11/98
10:02

10.5. General DCS Functionality (D/3™)

10.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

10:03
Initials: MT 6/11/98

10.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6/11/98

10.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: EXCEPTION #2

10.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6/11/98

10.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6/11/98

10.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6/11/98

10.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6/11/98

10.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

HAS '00' FOR YEAR

Initials: MT 6/11/98

10.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6/11/98

10.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

10.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

10.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

EN SWITCH

Initials: MT 6/11/98

10.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6/11/98

10.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6/11/98

10.5.15. SET TIME forward on the CDCM to February 29, 2000 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for testing following February 29 recognition.

Initials: MT 6/11/98

10.5.16. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes initial recognition of leap year verification.

Initials: MT 6/11/98
10:21

11. SYSTEM OPERATION FOLLOWING FEBRUARY 29, 2000 RECOGNITION

11.1. General Operation

11.1.1. VERIFY system recognizes that March 1, 2000 follows February 29, 2000, and that system does not roll over to February 30 or 31, 2000.

Initials: MT 6/11/98

11.1.2. OBSERVE system functional throughout the transition to March 1, 2000.

Initials: MT 6/11/98

11.2. Alarm And Associated Time And Date Information (D/3™)

11.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: EXCEPTION #1

11.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6/11/98

11.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6/11/98

11.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6/11/98

11.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMO STATUS OFFLINE

Initials: MT 6/11/98

11.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

11.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

11.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6/11/98

11.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6/11/98

11.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6/11/98

11.3. Time and Date Functions (D/3™)

11.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

11.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/11/98

11.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #3

11.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

11.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6/11/98

11.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and HISTDAT, HISTMON, or HISTMAX).

① MT 6-11-98

Report Name: BALANCE MT 6/11/98

HISTDAT EXCEPTION #4

① Unavailable On Simulator. Use Balance & Histdat Instead.

Initials: EXCEPTION #4 11:30

11.4. Time and Date Functions (Operating System)

11.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

11.4.2. LOGOUT from the terminal.

Initials: MT 6/11/98

11.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/6/98

11.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6/11/98

11.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6/11/98

11.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6/11/98

11.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6/11/98

11.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6/11/98

11.4.9. LOGOUT from the engineering workstation.

Initials: MT 6/11/98

11.5. General DCS Functionality (D/3™)

11.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 6/11/98

11.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6/11/98

11.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

6/11/98 MT EXCEPTION #2

Initials: ~~MT 6/11/98~~

11.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6/11/98

11.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6/11/98

11.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6/11/98

11.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6/11/98

11.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

HAS 'QQ' FOR 'YY'

Initials: MT 6/11/98

11.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6/11/98

11.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

11.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

11.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

11.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6/11/98
12:00

11.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6/11/98

11.5.15. SET TIME forward on the CDCM to December 30, 2000 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification that year 2000 has 366 days.

Initials: MT 6/11/98

11.5.16. COPY historical data files to dummy test files of format "UNITymm.29C", "UNITymm.29D", "UNITymm.29H", and "UNITymm.29X" for December 30, 2000, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification that year 2000 has 366 days.

Initials: MT 6/11/98

11.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes February 30/31 verification.

Initials: MT 6/11/98
12:16

12. SYSTEM OPERATION TO EXPOSE BAD LEAP YEAR CALCULATION (<366 DAYS)

12.1. General Operation

12.1.1. VERIFY system recognizes that December 31, 2000 follows December 30, 2000, and that system does not transition to January 1, 2001 directly from December 30, 2000.

Initials: MT 6/11/98

12.1.2. OBSERVE system functional throughout the transition to December 31, 2000.

Initials: MT 6/11/98
12:39

12.2. Alarm And Associated Time And Date Information (D/3™)

12.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: EXCEPTION #1

12.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6/11/98

12.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6/11/98

12.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6/11/98

12.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCM@ STATUS OFFLINE

Initials: MT 6/11/98

12.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

12.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

12.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6/11/98

12.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6/11/98

12.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6/11/98 12:54

12.3. Time and Date Functions (D/3™)

12.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

HAS "00" FOR YEAR Initials: MT 6/11/98

12.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/11/98

12.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #3

12.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

12.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6/11/98

12.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT~~ WRITER; and HISTDAT, HISTMON, or HISTMAX).

① MT 6-11-98

Report Name: BALANCE MT 6/11/98

HISTDAT EXCEPTION #4

① Unavailable On Simulator. Use BALANCE instead.

Initials: EXCEPTION #4 1:10

12.4. Time and Date Functions (Operating System)

12.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

1:11

Initials: MT 6/11/98

12.4.2. LOGOUT from the terminal.

Initials: MT 6/11/98

12.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

12.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6/11/98

12.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6/11/98

12.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6/11/98

12.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6/11/98

12.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6/11/98

12.4.9. LOGOUT from the engineering workstation.

Initials: MT 6/11/98 1:20

12.5. General DCS Functionality (D/3™)

12.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

1:21

Initials: MT 6/11/98

12.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6/11/98

12.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: EXCEPTION #2

12.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6/11/98

12.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6/11/98

12.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6/11/98

12.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6/11/98

12.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

12.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6/11/98

12.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

12.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

12.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

12.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6/11/98

1:35

12.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 6/11/98

12.5.15. SET TIME forward on the CDCM to February 28, 2001 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for to verify no leap year in 2001.

Initials: MT 6/11/98

12.5.16. COPY historical data files to dummy test files of format "UNITymm.27C", "UNITymm.27D", "UNITymm.27H", and "UNITymm.27X" for February 28, 2001, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares to verify no leap year in 2001. 1:42

Initials: MT 6/11/98

12.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes testing for bad leap year calculation (<366 days).

Initials: MT 6/11/98
1:47

13. SYSTEM OPERATION TO EXPOSE WRONG LEAP YEAR IN 2001

13.1. General Operation

13.1.1. VERIFY system recognizes that March 1, 2001 follows February 28, 2001, and that system does not transition to February 29, 2001 directly from February 28, 2001.

Initials: MT 6/11/98

13.1.2. OBSERVE system functional throughout the transition to March 1, 2001.

Initials: MT 6/11/98 2:03

13.2. Alarm And Associated Time And Date Information (D/3™)

13.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: EXCEPTION #1

13.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

13.2.3. GENERATE a critical P1 (RED) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: RSH-VVALP

Initials: MT 6/11/98

13.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E102

Initials: MT 6/11/98

13.2.5. GENERATE a non-critical WHITE process alarm, SILENCE it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101

Initials: MT 6/11/98

13.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCM0 STATUS

Initials: MT 6/11/98

13.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

EXCEPTION #2 MT 6/11/98

Initials: ~~MT 6/11/98~~

13.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: ~~MT 6/11/98~~ 6/11/98 MT

EXCEPTION #2

13.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

13.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 6/11/98

13.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

13.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

13.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 6/11/98

13.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 6/11/98

13.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 6/11/98
2:16

13.3. Time and Date Functions (D/3™)

13.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

13.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/11/98

13.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

DOW = 4

Initials: EXCEPTION #3

13.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

13.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

13.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

13.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 6/11/98

13.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT~~ WRITER; and HISTDAT, HISTMON, or HISTMAX).
① MT 6-11-98

Report Name: BALANCE MT 6/11/98
HISTDAT EXCEPTION #4

① Unavailable on Simulator. Use Balance instead.

Initials: EXCEPTION #4 2:28

13.4. Time and Date Functions (Operating System)

13.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

13.4.2. LOGOUT from the terminal.

Initials: MT 6/11/98

13.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

13.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 6/11/98

13.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 6/11/98

13.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: VAX CDCM

Initials: MT 6/11/98

13.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 6/11/98

13.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 6/11/98

13.4.9. LOGOUT from the engineering workstation.

Initials: MT 6/11/98 2:42

13.5. General DCS Functionality (D/3™)

13.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

2:42

Initials: MT 6/11/98

13.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 6/11/98

13.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: EXCEPTION #2

13.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 6/11/98

13.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 6/11/98

13.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 6/11/98

13.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 6/11/98

13.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

13.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 6/11/98

13.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2.

13.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

13.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

13.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 6/11/98

13.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS to verify cold startup after year 2000. 13:01

Initials: MT 6/11/98

13.5.15. On all nodes on the network, SHUT DOWN the operating system, POWER DOWN, and RESTART the operating system.
NOTE: Multiple nodes may be done simultaneously. Prepares DCS to verify cold startup after year 2000.

Initials: MT 6/11/98

13.5.16. WAIT until restart of operating system is completed on all nodes before continuing.

Initials: MT 6/11/98

13.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: Prepares DCS to verify cold startup after year 2000.

Initials: MT 6/11/98
3:18

14. SYSTEM OPERATION AFTER COLD STARTUP

14.1. General Operation

14.1.1. OBSERVE system functional following cold startup.

Initials: MT 6/11/98
3:19

14.2. Time and Date Functions (D/3™)

14.2.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

14.2.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 6/11/98

14.2.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #3

14.2.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

14.2.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

14.2.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: EXCEPTION #2

14.3. Time and Date Functions (Operating System)

14.3.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

14.3.2. LOGOUT from the terminal.

Initials: MT 6/11/98

14.3.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

14.3.4. LOGOUT from the engineering workstation.

Initials: MT 6/11/98

14.4. General DCS Functionality (D/3™)

14.4.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 6/11/98

14.4.2. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.
NOTE: This completes verification of cold startup. THIS COMPLETES YEAR 2000 TESTING. Prepare for reset of system date/time and system restart.

Initials: MT 6/11/98
3:26

15. SYSTEM RESTORATION

15.1. System Shutdown/Restart

15.1.1. RUN D3DOWN.
NOTE: Do all nodes on the network and first on non-CDCM.

Initials: MT 6/11/98

15.1.2. STOP Tasks FQIRESET And WATCH.
NOTE: STOP/ID=[*# From Show System*]).

Initials: MT 6/11/98

15.1.3. SET TIME On CDCM To Current Date/Time.

Initials: MT 6/11/98

15.1.4. On all nodes on the network, SHUT DOWN the operating system, POWER DOWN, and RESTART the operating system.
NOTE: Multiple nodes may be done simultaneously.

Initials: MT 6/11/98

15.1.5. WAIT until restart of operating system is completed on all nodes before continuing.

Initials: MT 6/11/98

15.1.6. RUN D3UP.
NOTE: Do for all applicable nodes on the network, CDCM first.

Initials: MT 6/11/98

15.1.7. After all nodes are running, RUN GENERAL FUNCTION 14 on CDCM to regenerate all alarms.

Initials: MT 6/11/98

15.2. General Operation

15.2.1. OBSERVE system functional following system startup.

Initials: MT 6/11/98

15.3. Time and Date Functions (D/3™)

15.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

15.3.2. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 6/11/98

15.3.3. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 6/11/98

15.3.4. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 6/15/98

15.4. Time and Date Functions (Operating System)

15.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

15.4.2. LOGOUT from the terminal.

Initials: MT 6/11/98

15.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 6/11/98

15.4.4. LOGOUT from the engineering workstation.

Initials: MT 6/11/98

15.5. General DCS Functionality (D/3™)

15.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 6/11/98

15.5.2. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.
NOTE: This completes verification of system restoration.

Initials: MT 6/11/98

15.6. Post Performance Review

15.6.1. This procedure's testing has been completed.

Initials: MT 6/15/98

15.6.2. The system's date and time have been restored to the current date and time and all systems have been verified functional.

Initials: MT 6/15/98

ATTACHMENT 1: D/3™ DCS YEAR 2000 TEST CRITERIA

ALARM INFORMATION (D/3™)
- HISTORICAL FILES' TIME AND DATE STAMPS
- HISTORICAL FILES' NAMES (INCORPORATES DATE)
- PROPER TIME AND DATE STAMP ON THE ALARM TYPER PRINTOUTS
- PROPER TIME AND DATE STAMP IN ALARM HISTORY FILE
- TIME AND DATE STAMP ON THE ALARM SUMMARY PAGES (CRITICAL, NON-CRITICAL, WHITE, AND SYSTEM)
- CHRONOLOGICAL PRESENTATION ON THE ALARM SUMMARY PAGES
- ENSURE ALARM ACKNOWLEDGMENT FUNCTIONS PROPERLY ALARMS
- ENSURE CLEARING OF ALARMS FUNCTIONS PROPERLY

TIME AND DATE FUNCTIONS (D/3™)
- PRESENTATION OF THE TIME AND DATE ON OCM SCREENS
- SABL TIMING FUNCTIONS WORK PROPERLY (SUGGEST FHOLD)
- PROPER COLLECTION AND DISPLAY OF CURRENT TREND INFORMATION
- PROPER COLLECTION AND DISPLAY OF HISTORICAL TREND INFORMATION
- PROPER OPERATION OF HISTORICAL DATA ARCHIVER
- PROPER OPERATION OF REPORT PROGRAMS

TIME AND DATE FUNCTIONS (OPERATING SYSTEM)
- VERIFY PREVIOUS VMS™ LOGIN TIME AND DATE STAMP
- CORRECT CREATION DATE AND TIME ON NEWLY CREATED SOFTWARE FILES
- TOTALIZER RESET AT 01:03 WORKS PROPERLY
- CORRECT TIME CLOCK FUNCTIONING ON CDCM AND DCM'S
- VERIFY AUTHORIZE UTILITY TIME AND DATE STAMP
- VERIFY C-COMPILER LISTING TIME AND DATE STAMP

GENERAL DCS FUNCTIONALITY (D/3™)
- ENSURE SEQUENCE PROGRAMS RUN
- ENSURE DEVICE LOGIC WORKS PROPERLY (SUGGEST INTERLOCK BYPASS)
- ENSURE ALARM INHIBIT C-PROGRAM AND FUNCTION WORKS PROPERLY
- VERIFY PROPER MCS OPERATION VIA SYSTEM STATUS AND P3 DISPLAYS
- VERIFY OPERATOR KEYBOARD WORKS (DISPLAY OF > 1 DAY-OLD HISTORICAL DATA)
- VERIFY SMOOTH SHUTDOWN OF CDCM, DCM'S
- VERIFY SMOOTH BOOT UP/REBOOT OF CDCM, DCM'S
- VERIFY COD UTILITY TIME AND DATE STAMP
- VERIFY MOD UTILITY TIME STAMP
- VERIFY MTS UTILITY TIME AND DATE STAMP
- VERIFY SIC COMPILER LISTING TIME AND DATE STAMP
- VERIFY MEAT UTILITY TIME AND DATE STAMP
- VERIFY SERIAL NUMBER FROM COMPLETE APPLICATIONS REBUILD
- VERIFY D/3™ FUNCTIONALITY FOLLOWING COMPLETE APPLICATIONS REBUILD

ATTACHMENT 2: TEST DISCREPANCY LOG SHEET

Page _____ of _____

TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE

5. PROCEDURE- PRODUCTION SYSTEM RESULTS

5.1. Setup and Initial Conditions

5.1.1. For simulation system, VERIFY simulation program stopped. Write N/A if production system shall be tested at this time. *

Initials: N/A MJ 12/16/98

5.1.2. For production system, VERIFY the following (Write N/A if simulation system shall be tested at this time):

5.1.2.1. Backup CDCM and DCM0 before vendor software changed

Initials: N/A MJ 12/16/98

5.1.2.2. Modify vendor software

Initials: N/A MJ 12/16/98

5.1.2.3. Compile vendor software

Initials: N/A MJ 12/16/98

5.1.2.4. Load new software to CDCM and DCM0

Initials: N/A MJ 12/16/98

5.1.2.5. Complete any USQ documentation

Initials: N/A MJ 12/16/98

* Production system for this ATP is new D/3 version instead of 242A 6-3-3 D/3.

5.2. Prerequisite

Document the DCS system by recording the following information:

SYSTEM (Check One): [ ] Simulator [X] Production (Procurement D/3)

D/3™ VERSION: 9.0.2-2

DATE OF TEST: 12-16-98

CHECK ONE OF THE FOLLOWING SYSTEM STATUSES:

[ ] Original, Unmodified D/3™ Version (BASELINE)

[ ] D/3™ Version With Modified GSE System Patches

[X] New D/3 version as noted above

LIST OF GSE PATCH NUMBERS (N/A If None):

N/A

FILL IN THE FOLLOWING SYSTEM INFORMATION:

	HARDWARE	OPERATING SYSTEM & VERSION	OPERATOR DISPLAY AVAILABLE (Y/N)
CDCM	DEC ALPHA 433	VMS 7.1-1H2	YES (2)
DCM	DEC ALPHA 433	VMS 7.1-1H2	YES (2)
WORKSTATIONS	VAX 4000-60 (1)	VMS 7.1-1H2	YES (1)
PCM	386 PCM II	D/3 9.0.2-2	N/A
NETWORK	TWIST PAIR/THINWIRE	N/A	N/A

NOTE: Throughout the test if possible, capture all terminal output to a printer or a file in order to document events. Also, when possible, print a screen copy of the operator console display to document operation of the system each time a display is checked as part of the test.

(1) ALSO 9.0.2-2 NT PC

6. SYSTEM OPERATION BEFORE ALTERING DATE AND TIME

6.1. Alarm And Associated Time And Date Information (D/3™)

6.1.1. COPY as necessary alarm history files and historical data files into SAVE directories.

Initials: MT 12/16/98 0915

6.1.2. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/16/98 0916

6.1.3. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 12/16/98 0916

6.1.4. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it,~~ but do NOT ACKNOWLEDGE it at this time. (2) MT 12/16/98

(2) No alarm printer or horn on F.A.T.

Alarm description: PI-IA-1 IBAD ALARM

Initials: MT 0920 12/16/98

6.1.5. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/16/98

Alarm description: PI-PA-1 LO ALARM

Initials: MT 0922 12/16/98

6.1.6. GENERATE a non-critical WHITE process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/16/98

Alarm description: TI-AMBS-1 COLD JUNC SENSOR LO

Initials: MT 0924 12/16/98

6.1.7. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMCIA LINK STATUS CHANGE

Initials: MT 0929 12/16/98

~~6.1.8. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~ MT 12/16/98

N/A No Printer on F.A.T. USE AHF INSTEAD

Initials: N/A

6.1.9. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/16/98

6.1.10. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/16/98

6.1.11. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/16/98

6.1.12. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/16/98

6.1.13. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/16/98

6.1.14. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/16/98

6.1.15. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/16/98

6.1.16. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/16/98

6.2. Time and Date Functions (D/3™)

6.2.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/16/98

6.2.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/17/98 1536

6.2.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17 1536

6.2.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

EXCEPTION #1 / Resolved 12/17/98

Initials: MT 12/17/98 1926

6.2.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/17 1610

6.2.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17 1611

6.2.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

[d3HIS.[HTD]

Initials: MT 12/17 1614

6.2.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and HISTDAT) HISTMON, or HISTMAX).

Report Name: HISTDAT

RUN D3EXE:HISTDAT

(Note: Reports are generated with correct date/time but data Looks wrong)

Initials: MT 12/17 1619

6.3. Time and Date Functions (Operating System)

6.3.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp. DECTERM / SHOWTIME

Initials: MT 12/17 1620

6.3.2. LOGOUT from the terminal.

Initials: MT 12/17

6.3.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp. SET HOST WHCDCM

Initials: MT 12/17/98

6.3.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/17/98

6.3.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/17/98

6.3.6. VERIFY date and time correct on DCM ($SHOW TIME ~~or ->TIM commands~~). MT 12/17/98

List Systems verified: WHENGR, WHDCM8, WHCDCM

Initials: MT 12/17/98

6.3.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/17/98

6.3.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

BLD -C WATCH.C -LIS Initials: MT 12/17/98

6.3.9. LOGOUT from the engineering workstation.

Initials: MT 12/17/98

6.4. General DCS Functionality (D/3™)

6.4.1. VERIFY Sequence and Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/17/98

6.4.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/17 1649

6.4.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation. (EXCEPTION #1) / Resolved

Initials: MT 12/17/98 1927

6.4.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 1652 12/17/98

6.4.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 1653 12/17/98

6.4.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/17/98

6.4.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/17/98

6.4.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 1655 12/17/98

6.4.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/17/98

6.4.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

6.4.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98 1700

6.4.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 1701 12/17/98

6.4.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
~~**NOTE: Do first on non-CDCM.**~~ MT 12/17/98

Initials: MT 12/17/98

6.4.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[*# FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/17/98

6.4.15. SET TIME forward on the CDCM to December 31, 1998 23:~~45~~50:00.00 hours.
NOTE: This allows ~~10~~5 minutes for restart before data is archived and prepares for verification of year 1999 operation. MT 12/17/98

Initials: MT 12/17/98

~~6.4.16. COPY historical~~ data files to dummy test files of format "UNITymm.30C", ~~"UNITymm.30D", "UNITymm.30H"~~, and "UNITymm.30X" for December 31, 1998, where "UNIT" may be CDCM ~~and/or DCM0~~.
NOTE: Prepares for verification of year 1999 operation. N/A MT 12/17/98

Initials: MT 12/17/98

6.4.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes System Operation Before Altering Date and Time.

Initials: MT 12/17/98

7. SYSTEM OPERATION IN TRANSITION TO YEAR 1999

7.1. General Operation

7.1.1. OBSERVE system functional throughout the transition to the year 1999.

Initials: MT 12/17/98

7.2. Alarm And Associated Time And Date Information (D/3™)

7.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/17/98

7.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFI-E101 HIHI

Initials: MT 12/17/98 0038

7.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE~~ it, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFI-E102 HI

Initials: MT 12/17/98 0045

7.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE~~ it, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFI-E104 LO

Initials: MT 12/17/98

7.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMOA LINK STATUS CHANGE

Initials: MT 12/17/98 0049

~~7.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~ N/A MT 12/17/98

No Printer For F.A.T. use AHF instead

Initials:

7.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/17/98

7.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/17/98 0100

7.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/17/98

7.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/17/98

7.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/17/98

7.3. Time and Date Functions (D/3™)

7.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/17/98

7.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/17/98

7.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/17/98

7.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER,~~ and HISTDAT, HISTMON, or HISTMAX).
MT 12/17/98

Report Name: HISTDAT WFI-E107
(note: reports generated but data incorrect)
DATE/TIME OK Initials: MT 12/17/98

7.4. Time and Date Functions (Operating System)

7.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/17/98

7.4.2. LOGOUT from the terminal.

Initials: MT 12/17/98

7.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/17/98

7.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/17/98

7.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/17/98

7.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: DCM0, DCM1, CDCM

Initials: MT 12/17/98

7.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/17/98

7.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/17/98

7.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/17/98

7.5. General DCS Functionality (D/3™)

7.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/17/98

7.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/17/98

7.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 12/17/98

7.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/17/98

7.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/17/98

7.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/17/98

7.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/17/98

7.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/17/98

7.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

7.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 12/17/98

7.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/17/98

7.5.15. SET TIME forward on the CDCM to September 8, 1999 23:~~45~~53:00.00 hours.
NOTE: This allows ~~10~~2 minutes for restart before data is archived and prepares for verification of four-nines operation.

MT 12/17/98

Initials: MT 12/17/98

~~7.5.16. COPY historical data files to dummy test files of format "UNITymm.07C", "UNITymm.07D", "UNITymm.07H", and "UNITymm.07X" for September 8, 1999, where "UNIT" may be CDCM and/or DCM0.~~
~~NOTE: Prepares for verification of four-nines operation.~~

N/A MT 12/17/98

Initials: _____

7.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes Transition to 1999.

Initials: MT 12/17/98

8. SYSTEM OPERATION IN TRANSITION TO SEPTEMBER 9, 1999

8.1. General Operation

8.1.1. OBSERVE system functional throughout the transition to September 9, 1999.

Initials: MT 12/17/98

8.2. Alarm And Associated Time And Date Information (D/3™)

8.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/17/98

8.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFI-E101 HI HI

Initials: MT 12/17/98 0005

8.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFE-E101 HI

Initials: MT 12/17 0005

8.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/17/98

Alarm description: WFI-E104 LO

Initials: MT 12/17/98

8.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: DCMO LINK STATUS CHANGE

Initials: MT 00008 12/17

~~8.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~ N/A MT 12/17/98

No Printer at F.A.T. Initials: ____

8.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/17/98

8.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/17/98

8.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/17/98

8.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/17/98

8.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/17/98

8.3. Time and Date Functions (D/3™)

8.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/17/98

8.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/17/98

8.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/17/98

8.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and HISTDAT, HISTMON, or HISTMAX).
MT 12/17/98

Report Name: HISTDAT WFI-E102
(note: reports generated but data looks incorrect)
DATE/TIME OK Initials: MT 12/17/98

8.4. Time and Date Functions (Operating System)

8.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/17/98

8.4.2. LOGOUT from the terminal.

Initials: MT 12/17/98

8.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/17/98

8.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/17/98

8.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/17/98

8.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHCDCM

Initials: MT 12/17/98

8.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/17/98

8.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/17/98

8.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/17/98

8.5. General DCS Functionality (D/3™)

8.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/17/98

8.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/17/98

8.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 12/17/98

8.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/17/98

8.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/17/98

8.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/17/98

8.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/17/98

8.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00". d3cfg: config.rep

Initials: MT 12/17/98

8.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/17/98

8.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Dummys.LST Initials: MT 12/17/98

8.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

8.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 12/17/98

8.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/17/98

8.5.15. SET TIME forward on the CDCM to December 31, 1999 23:~~45~~50:00.00 hours. MT 12/17/98
NOTE: This allows ~~10~~5 minutes for restart before data is archived and prepares for verification of year 2000 operation.

Initials: MT 12/17/98

~~8.5.16. COPY historical data~~ files to dummy test files of format "UNITymm.30C", "UNITymm.30D", "~~UNITymm.30H", and~~ "UNITymm.30X" for December 31, 1999, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares for verification of year 2000 operation. N/A MT 12/17/98

Initials: _____

8.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes four-nines verification.

Initials: MT 12/17/98

9. SYSTEM OPERATION IN TRANSITION TO YEAR 2000

9.1. General Operation

9.1.1. OBSERVE system functional throughout the transition to January 1, 1999.

Initials: MT 12/17/98

9.2. Alarm And Associated Time And Date Information (D/3™)

9.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/18/98

9.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

12/18/98 MT Initials: MT 12/18/98

9.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it,~~ but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HIHI

12/18/98 MT Initials: MT 12/18/98

9.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HI

12/18/98 MT Initials: MT 12/18/98

9.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE it,~~ but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E104 LO

Initials: MT 12/18/98

9.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMDA LINK STATUS CHANGE 0015

Initials: MT 12/18/98

~~9.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~

N/A

No Printer for F.A.T. MT 12/18/98 Initials: _____

USE AHF

9.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

9.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

9.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/17/98

9.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/18/98

9.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/18/98

9.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/18/98

9.3. Time and Date Functions (D/3™)

9.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

9.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

9.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has

also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/18/98

9.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER,~~ and HISTDAT HISTMON, or HISTMAX).
MT 12/18/98

Report Name: HISTDAT
(note: reports generated but data incorrect)
DATE/TIME OK Initials: MT 12/18/98

9.4. Time and Date Functions (Operating System)

9.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

9.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

9.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

9.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/18/98

9.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/18/98

9.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHCDCM

Initials: MT 12/18/98

9.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/18/98

9.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/18/98

9.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

9.5. General DCS Functionality (D/3™)

9.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

9.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/18/98

9.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

EXCEPTION #2

Initials: MT 12/18/98

9.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/18/98

9.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/18/98

9.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/18/98

9.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/18/98

9.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/18/98

9.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

9.5.13. If testing on production system, WRITE N/A in sign-off spaces below and SKIP this step. If testing on simulation system, COMPLETE this step, Applications Rebuild.

9.5.13.1. REBUILD all applications.

Initials: N/A

9.5.13.2. RESET and RELOAD PCMs.

Rebuild already done. MT 12/18/98

Initials: N/A

9.5.14. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 12/18/98

9.5.15. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/18/98

MT 12/18/98

9.5.16. SET TIME forward on the CDCM to February 28, 2000 23:~~45~~:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification of initial leap year recognition.

Initials: MT 12/18/98

~~9.5.17. COPY~~ historical data files to dummy test files of format "UNITymm.27C", "UNITymm.27D", "UNITymm.27H", and "UNITymm.27X" for February 28, 2000, where "UNIT" may be CDCM and/or ~~DCM0~~.
NOTE: Prepares for verification of initial leap year recognition.

N/A

Initials: MT 12/18/98

9.5.18. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes year 2000 verification.

Initials: MT 12/18/98

10. SYSTEM OPERATION DURING INITIAL LEAP YEAR RECOGNITION

10.1. General Operation

10.1.1. VERIFY system recognizes February 29, 2000.

Initials: MT 12/18/98

~~10.1.2. VERIFY serial number (after complete applications rebuild) in MOD utility has correct format.~~

N/A MT 12/18/98

Initials: _____

10.1.3. VERIFY general D/3™ functionality ~~following complete applications rebuild.~~ MT

Initials: MT 12/18/98

10.1.4. OBSERVE system functional throughout the transition to February 29, 2000.

Initials: MT 12/18/98

10.2. Alarm And Associated Time And Date Information (D/3™)

10.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/18/98

10.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

12-18-98 MT Initials: MT 12/18/98

10.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HIHI

12-18-98 MT Initials: MT 12/18/98

10.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HI

12-18-98 MT Initials: MT 12/18/98

10.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E104 LO

Initials: MT 12/18/98

10.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: SEQ PGM NOT LOADED

Initials: MT 12/18/98

~~10.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~ N/A MT 12/18/98
No Printer For F. A. J.
Initials: _____

10.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

10.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

10.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/18/98

10.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/18/98

10.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/18/98

10.3. Time and Date Functions (D/3™)

10.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

10.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".
EXCEPTION #2

Initials: MT 12/18/98

10.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

10.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/18/98

10.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~, and (HISTDAT) HISTMON, or HISTMAX).
MT 12/18/98

Report Name: HISTDAT
(Other reports generated but data incorrect)
DATE/TIME IS OK Initials: MT 12/18/98

10.4. Time and Date Functions (Operating System)

10.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

10.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

10.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

10.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/18/98

10.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/18/98

10.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHCDCM

Initials: MT 12/18/98

10.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/18/98

10.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/18/98

10.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

10.5. General DCS Functionality (D/3™)

10.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

10.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/18/98

10.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 12/18/98

10.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/18/98

10.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/18/98

10.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/18/98

10.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Dec 31, 1999 Used

Initials: MT 12/18/98

10.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/18/98

10.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

10.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 12/18/98

10.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/18/98

(3) MT 12/18/98

10.5.15. SET TIME forward on the CDCM to February 29, 2000 23:~~45~~:00.00 hours. MT 52
NOTE: This allows (10) minutes for restart before data is archived and prepares for testing following February 29 recognition.

Initials: MT 12/18/98

10.5.16. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes initial recognition of leap year verification.

Initials: MT 12/18/98

11. SYSTEM OPERATION FOLLOWING FEBRUARY 29, 2000 RECOGNITION

11.1. General Operation

11.1.1. VERIFY system recognizes that March 1, 2000 follows February 29, 2000, and that system does not roll over to February 30 or 31, 2000.

Initials: MT 12/18/98

11.1.2. OBSERVE system functional throughout the transition to March 1, 2000.

Initials: MT 12/18/98

11.2. Alarm And Associated Time And Date Information (D/3™)

11.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/18/98

11.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE~~ it, but do NOT ACKNOWLEDGE it at this time. MT 12/18/98

Alarm description: WFI-E101 HIHI

Initials: MT 12/18/98

11.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/18/98

Alarm description: WFI-E101 HI

Initials: MT 12/18/98

11.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time. MT 12/18/98

Alarm description: WFI-E104 LO

Initials: MT 12/18/98

11.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: DCMQ LINK STATUS CHANGE

Initials: MT 12/18/98

~~11.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~

No Printer for F.A.T.

Initials: N/A MT 12/18/98

11.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

11.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

11.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/18/98

11.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/18/98

11.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/18/98

11.3. Time and Date Functions (D/3™)

11.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

11.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

EXCEPTION #2

Initials: MT 12/18/98

11.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

11.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/18/98

11.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and (HISTDAT) HISTMON, or HISTMAX).
MT 12/18/98

Report Name: HISTDAT
(Note: Report generated but data incorrect)
dates OK
time OK

Initials: MT 12/18/98

11.4. Time and Date Functions (Operating System)

11.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

11.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

11.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

11.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/18/98

11.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/18/98

11.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHCDCM, WHDCMB, WHENGR

Initials: MT 12/18/98

11.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/18/98

11.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/18/98

11.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

11.5. General DCS Functionality (D/3™)

11.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

11.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins).

Initials: MT 12/18/98

11.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation. EX-C-1 & HV-ECI-1 using PDSH-FCS1 INLK

Initials: MT 12/18/98

11.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/18/98

11.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/18/98

11.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/18/98

11.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

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Initials: MT 12/18/98

11.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/18/98

11.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

11.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down.
NOTE: Do first on non-CDCM.

Initials: MT 12/18/98

11.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/18/98

11.5.15. SET TIME forward on the CDCM to December 30, 2000 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for verification that year 2000 has 366 days.

Initials: MT 12/18/98

~~11.5.16. COPY historical data files to dummy test files of format "UNITymm.29C", "UNITymm.29D", "UNITymm.29H", and "UNITymm.29X" for December 30, 2000, where "UNIT" may be CDCM and/or DCM0.~~
~~NOTE: Prepares for verification that year 2000 has 366 days.~~

N/A MT

Initials: _____

11.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes February 30/31 verification.

Initials: MT 12/18/98

12. SYSTEM OPERATION TO EXPOSE BAD LEAP YEAR CALCULATION (<366 DAYS)

12.1. General Operation

12.1.1. VERIFY system recognizes that December 31, 2000 follows December 30, 2000, and that system does not transition to January 1, 2001 directly from December 30, 2000.

Initials: MT 12/18/98

12.1.2. OBSERVE system functional throughout the transition to December 31, 2000.

Initials: MT 12/18/98

12.2. Alarm And Associated Time And Date Information (D/3™)

12.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/18/98

12.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

12/18/98 MT Initials: MT 12/18/98

12.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HI HI

12/18/98 MT Initials: MT 12/18/98

12.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it,~~ but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HI

12/18/98 MT Initials: MT 12/18/98

12.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE~~ it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E104 LO

Initials: MT 12/18/98

12.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMQA LINK STATUS CHANGE 0006

Initials: MT 12/18/98

~~12.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~

No Printer for F.A.T. use AHA-2

N/A MT 12/18/98

Initials:

12.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

12.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

> 12.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/18/98

12.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/18/98

12.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/18/98

12.3. Time and Date Functions (D/3™)

12.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

12.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

EXCEPTION #2

Initials: MT 12/18/98

12.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

12.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours.

Initials: MT 12/18/98

12.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and HISTDAT, HISTMON, or HISTMAX).

MT 12/18/98

Report Name: HISTDAT

(Note: Generates Report with proper DATE + TIME OKAY, but EPN values are wrong)

Initials: MT 12/18/98

12.4. Time and Date Functions (Operating System)

12.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

12.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

12.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

12.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/18/98

12.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/18/98

12.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHENGR, WHDCM&, WHCDCM

Initials: MT 12/18/98

12.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/18/98

12.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/18/98

12.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

12.5. General DCS Functionality (D/3™)

12.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

12.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins). LERFILK HV-RC3-3 & LDS-A1 INLK

Initials: MT 12/18/98

12.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 12/18/98

12.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/18/98

12.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/18/98

12.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/18/98

12.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/18/98

12.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/18/98

12.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: 12/18/98 MT

12.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

12.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down. **NOTE: Do first on non-CDCM.**

Initials: MT 12/18/98

12.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS for restart.

Initials: MT 12/18/98

12.5.15. SET TIME forward on the CDCM to February 28, 2001 23:45:00.00 hours.
NOTE: This allows 10 minutes for restart before data is archived and prepares for to verify no leap year in 2001.

Initials: MT 12/18/98

~~12.5.16. COPY historical~~ data files to dummy test files of format "UNITymm.27C", "UNITymm.27D", "UNITymm.27H", and "UNITymm.27X" for February 28, 2001, where "UNIT" may be CDCM and/or DCM0.
NOTE: Prepares to verify no leap year in 2001.

N/A MT 12/18/98

Initials: _____

12.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: This completes testing for bad leap year calculation (<366 days).

Initials: MT 12/18/98

13. SYSTEM OPERATION TO EXPOSE WRONG LEAP YEAR IN 2001

13.1. General Operation

13.1.1. VERIFY system recognizes that March 1, 2001 follows February 28, 2001, and that system does not transition to February 29, 2001 directly from February 28, 2001.

Initials: MT 12/18/98

13.1.2. OBSERVE system functional throughout the transition to March 1, 2001.

Initials: MT 12/18/98

13.2. Alarm And Associated Time And Date Information (D/3™)

13.2.1. VERIFY creation of alarm history files with name format "ALddmmmyy.000".

Initials: MT 12/18/98

13.2.2. VERIFY date and time stamps are accurate for alarm history file contents (alarm messages) and have format "dd-mmm-yy 00:00:00".

12/18/98 MT Initials: MT 12/18/98

13.2.3. GENERATE a critical P1 (RED) process alarm, ~~SILENCE~~ it, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HIHI

12/18/98 MT Initials: MT 12/18/98

13.2.4. GENERATE a non-critical P2 (YELLOW) process alarm, ~~SILENCE it~~, but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E101 HI

12/18/98 MT Initials: MT 12/18/98

13.2.5. GENERATE a non-critical WHITE process alarm, ~~SILENCE it,~~ but do NOT ACKNOWLEDGE it at this time.

Alarm description: WFI-E104 LO

Initials: MT 12/18/98

13.2.6. GENERATE a P3 SYSTEM ALARM (suggest network error)

Alarm description: PCMCIA LINK STATUS CHANGE

Initials: MT 12/18/98

~~13.2.7. CHECK alarm printer functions correctly upon receipt of an alarm, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".~~

No Printer for F.A.T. use AHF2

Initials: N/A MT 12/18/98

13.2.8. CHECK alarm history files are updated correctly upon receipt of an alarm, including correct alarm message date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.2.9. CHECK alarms recorded above displayed correctly on P1 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

13.2.10. CHECK alarms recorded above displayed correctly on P2 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm 00:00:00".

Initials: MT 12/18/98

13.2.11. CHECK alarms recorded above displayed correctly on WHITE ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.2.12. CHECK system alarm recorded above displayed correctly on P3 ALARM SUMMARY, including correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.2.13. CHECK alarms displayed in chronological order on alarm summary pages (newest at top).

Initials: MT 12/18/98

13.2.14. ACKNOWLEDGE alarms and VERIFY they can be acknowledged.

Initials: MT 12/18/98

13.2.15. RESTORE alarm conditions and VERIFY they clear from alarm summaries.

Initials: MT 12/18/98

13.3. Time and Date Functions (D/3™)

13.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.3.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

13.3.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.3.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

EXCEPTION #2

Initials: MT 12/18/98

13.3.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

13.3.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.3.7. VERIFY Archiver has created archive file for previous day's historical data in the format "UNITymm.ddD" at about 23:55 hours on a DCM; and VERIFY Archiver has also created historical reference files for the next day's data in the format "UNITymm.ddC", "UNITymm.ddH", and "UNITymm.ddX" at about 00:01 hours. MT

Initials: MT 12/18/98

13.3.8. RUN the following reports and VERIFY they can be generated with correct date and time (suggest ~~TFBAL, REPORT WRITER~~; and HISTDAT, HISTMON, or HISTMAX). MT 12/18/98

Report Name: HISTDAT

(Note: Generates Report with proper date + time But collected values are wrong)

Initials: MT 12/18/98

13.4. Time and Date Functions (Operating System)

13.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

13.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

13.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

13.4.4. VERIFY VMS™ date and time stamps are accurate for newly created DCM files.

Initials: MT 12/18/98

13.4.5. SUBMIT a batch job (suggest FQIRESET) to the batch queue and VERIFY EXECUTION on CDCM.

Initials: MT 12/18/98

13.4.6. VERIFY date and time correct on DCM ($SHOW TIME or >TIM commands).

List Systems verified: WHDCM6, WHENGR, WHCDCM

Initials: MT 12/18/98

13.4.7. RUN the Authorize Utility and VERIFY date and time stamp is correct and has format "dd-mmm-yyyy 00:00".

Initials: MT 12/18/98

13.4.8. COMPILE a dummy C-program and VERIFY the content of the compiler list file (*.LIS) date and time stamp is correct and has format "dd-mmm-yyyy 00:00:00".

Initials: MT 12/18/98

13.4.9. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

13.5. General DCS Functionality (D/3™)

13.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

13.5.2. CHECK Device Logic functions properly (suggest interlock bypass or simple valve such as 207-A basins). HV-CAI-2 + HV-CAI-6 & INLK TO HV-CAI-6 FROM HV-CAI-2 Initials: MT 12/18/98

13.5.3. EXECUTE alarm inhibit C-program from the SKID panel and VERIFY proper operation.

Initials: MT 12/18/98

13.5.4. INHIBIT an alarm and VERIFY removal from alarm summary display.

Initials: MT 12/18/98

13.5.5. REMOVE the inhibit from the alarm in previous step and VERIFY the alarm returns to the alarm summary display.

Initials: MT 12/18/98

13.5.6. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.

Initials: MT 12/18/98

13.5.7. VERIFY OCM keyboard is able to access data that is more than 24 hours old.

Initials: MT 12/18/98

13.5.8. VERIFY COD Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.5.9. VERIFY MOD Utility time stamp is correct and has format "00:00:00".

Initials: MT 12/18/98

13.5.10. VERIFY MTS Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.5.11. COMPILE a dummy Sequence and Batch Language program and VERIFY SIC Utility listing (*.LST) date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.5.12. VERIFY MEAT Utility date and time stamp is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

13.5.13. RUN D3DOWN on all nodes on the network and VERIFY smooth shut down. **NOTE: Do first on non-CDCM.**

Initials: MT 12/18/98

13.5.14. STOP tasks FQIRESET and WATCH if applicable (STOP/ID=[# *FROM SHOW SYSTEM*]).
NOTE: Prepares DCS to verify cold startup after year 2000.

Initials: MT 12/18/98

13.5.15. On all nodes on the network, SHUT DOWN the operating system, POWER DOWN, and RESTART the operating system.
NOTE: Multiple nodes may be done simultaneously. Prepares DCS to verify cold startup after year 2000.

Initials: MT 12/18/98

13.5.16. WAIT until restart of operating system is completed on all nodes before continuing.

Initials: MT 12/18/98

13.5.17. RUN D3UP on all nodes on the network (CDCM first) and VERIFY smooth start up.
NOTE: Prepares DCS to verify cold startup after year 2000.

Initials: MT 12/18/98

14. SYSTEM OPERATION AFTER COLD STARTUP

14.1. General Operation

14.1.1. OBSERVE system functional following cold startup.

Initials: MT 12/18/98

14.2. Time and Date Functions (D/3™)

14.2.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

14.2.2. CHECK Sequence And Batch Language timing functions work properly by observing FHOLD flag on Program Diagnostics graphic #133 and VERIFY that FHOLD rolls over between 30 and 45 seconds.

Initials: MT 12/18/98

14.2.3. CHECK date and time function for FHOLD on Program Diagnostic graphic #133 is accurate and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

14.2.4. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

EXCEPTION #2

Initials: MT 12/18/98

14.2.5. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

14.2.6. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

14.3. Time and Date Functions (Operating System)

14.3.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

14.3.2. LOGOUT from the terminal.

Initials: MT 12/18/98

14.3.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

14.3.4. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

14.4. General DCS Functionality (D/3™)

14.4.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

14.4.2. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.
NOTE: This completes verification of cold startup. THIS COMPLETES YEAR 2000 TESTING. Prepare for reset of system date/time and system restart.

Initials: MT 12/18/98

15. SYSTEM RESTORATION

15.1. System Shutdown/Restart

15.1.1. RUN D3DOWN.
NOTE: Do all nodes on the network and first on non-CDCM.

Initials: MCT 12/18/98

15.1.2. STOP Tasks FQIRESET And WATCH.
NOTE: STOP/ID=[# *From Show System*]).

Initials: MT 12/18/98

15.1.3. SET TIME On CDCM To Current Date/Time, then do D3UP on all.

Initials: MT 12/18/98

15.1.4. On all nodes on the network, SHUT DOWN the operating system, POWER DOWN, and RESTART the operating system.
NOTE: Multiple nodes may be done simultaneously.

Initials: MT 12/18/98

15.1.5. WAIT until restart of operating system is completed on all nodes before continuing.

Initials: MT 12/18/98

15.1.6. RUN D3UP.
NOTE: Do for all applicable nodes on the network, CDCM first.

Initials: MT 12/18/98

~~15.1.7. After all nodes are running, RUN GENERAL FUNCTION 14 on CDCM to regenerate all alarms.~~ GF-14 WORKS FINE. NO NEED TO RETEST HERE.

Initials: N/A MCT 12/18/98

15.2. General Operation

15.2.1. OBSERVE system functional following system startup.

Initials: MT 12/18/98

15.3. Time and Date Functions (D/3™)

15.3.1. CHECK standard date and time on OCM screens (lower right corner) is accurate and has format of "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

15.3.2. RUN inhibit C-program from SKID panel and VERIFY date and time on graphic #80 is correct and has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

15.3.3. CHECK current trends operate correctly on OCMs and VERIFY correct time stamp that has format "00:00:00".

Initials: MT 12/18/98

15.3.4. CHECK historical trends operate correctly on OCMs and VERIFY correct date and time stamp that has format "dd-mmm-yy 00:00:00".

Initials: MT 12/18/98

15.4. Time and Date Functions (Operating System)

15.4.1. LOGIN to a terminal (VT type) and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

15.4.2. LOGOUT from the terminal.

Initials: MT 12/18/98

15.4.3. LOGIN to an engineering workstation and VERIFY previous VMS™ login date and time stamp.

Initials: MT 12/18/98

15.4.4. LOGOUT from the engineering workstation.

Initials: MT 12/18/98

15.5. General DCS Functionality (D/3™)

15.5.1. VERIFY Sequence And Batch Language programs are running by observing Program Status graphic #43.

Initials: MT 12/18/98

15.5.2. VERIFY System Status AND P3 displays show no unexpected system alarm conditions.
NOTE: This completes verification of system restoration.

Initials: MT 12/18/98

15.6. Post Performance Review

15.6.1. This procedure's testing has been completed.

Initials: MT 12/18/98

15.6.2. The system's date and time have been restored to the current date and time and all systems have been verified functional.

Initials: MT 12/18/98

Get copies of AHF, HTD directories.
Examples of AHF contents.

ATTACHMENT ~~2~~ 3: TEST DISCREPANCY LOG SHEET Page 1 of 4

EXCEPTION #1 (JUNE 1998 TEST)

TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE
9.2.1	AHF HAS FILE NAME FORMAT OF AL DD MMM YYY.ØØØ INSTEAD OF AL DD MMM YY.ØØØ. IS "YYY", NOT "YY" (ie: AL Ø1 JAN 1ØØ.ØØØ) FOR 2ØØ1, YYY = 1Ø1. FROM JUNE 1998 TESTING	FIXED BY D/3 UPGRADE TO VERSION 9.0.2 M Dent	12/21/98
10.2.1			
11.2.1			
12.2.1			
13.2.1			

ATTACHMENT ~~2~~ 3: TEST DISCREPANCY LOG SHEET Page 2 of 4

EXCEPTION # 2 (JUNE 1998 TEST)

TEST STEP NUMBER	DESCRIPTION		RESOLUTION	CLOSED DATE
9.2.2	INCORRECT DATE STAMP			12/21/98
9.2.7	HAS "??" FOR YEAR "YY".		FIXED BY	
9.2.8	ALL OTHER FUNCTIONS		D/3 UPGRADE	
9.2.11	ARE NORMAL.		TO VERSION	
9.2.12	(*) FOR THESE, LOCAL		9.0.2	
9.3.4	TIME HAS "00" FOR		M Scott	
(9.3.6 TIME PERMITTING)				
9.5.10 (*)	YEAR, BUT MICRO TIME			
10.1.2	HAS "??" FOR YEAR "YY".			
10.2.2	TEST STEP			
10.2.7	11.3.4	13.2.2		
10.2.8	11.3.6	13.2.7		
10.2.11	11.5.3	13.2.8		
10.2.12	11.5.10 (*)	13.2.11		
10.3.4	12.2.2	13.2.12		
10.3.6	12.2.7	13.3.4		
10.5.3	12.2.8	13.3.6		
10.5.10 (*)	12.2.11	13.5.3		
11.2.2	12.2.12	13.5.10 (*)		
11.2.7	12.3.4	14.2.4		
11.2.8	12.3.6	14.2.6		
11.2.11	12.5.3			
11.2.12	12.5.10 (*)			

ATTACHMENT ~~2~~ 3: TEST DISCREPANCY LOG SHEET Page 3 of 4

EXCEPTION #3 (JUNE 1998 TEST)

TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE
9.3.3	SABL GETDATE FUNCTION RETURNS '100' FOR YEAR INSTEAD OF '00' OR 2000.	FIXED BY D/3 UPGRADE TO VERSION 9.0.2	12/21/98
10.3.3	FOR 2001, RETURNS 101		
11.3.3	FOR YEAR.		M Dent
12.3.3			
13.3.3			
14.2.3			

ATTACHMENT 3: TEST DISCREPANCY LOG SHEET Page 4 of 4

EXCEPTION #4 (JUNE 1998 TEST)

TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE
11.3.8	HISTDAT FAILED TO COLLECT & REPORT DATA. VALUES OUT OF RANGE & STATUS = 2048. SUSPECT GETEPOCH CALL. EPOCH FOR DATES BELOW WERE REPORTED: Feb 29 1775500156 Feb 28 1775456236 (1999) Dec 31 63 1151340. BALANCE PROGRAM WORKED. EPOCH FOR 12-30-200 1801894636.	FIXED BY D/3 UPGRADE TO VERSION 9.0.2. M Lobo	12/21/98
12.3.8			
13.3.8			

ATTACHMENT 4: TEST DISCREPANCY LOG SHEET Page 1 of 2

Y2K UPGRADE TEST (DEC. 1998) - TEST EXCEPTION #1

	TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE
①	6.2.4 6.4.3	INHA.C did not work due to Access Violation, but time/date on graphic 80 worked.	Fix by removing "09" from strings. Logical put into D3SET:SITEASSIGN.COM	12/17/98 MS

ATTACHMENT 4: TEST DISCREPANCY LOG SHEET Page 2 of 2

Y2K UPGRADE TEST (DEC. 1998) - TEST EXCEPTION #2

	TEST STEP NUMBER	DESCRIPTION	RESOLUTION	CLOSED DATE
②	9.5.3 10.3.4 11.3.4 12.3.4 13.3.4 14.2.4	INHA.C works but does not put all DESCRIPTORS into the graphic list. Some EPNs have all descriptors okay, some have less than they should. Use of 8 - character words causes truncated. Descriptors of 7 characters or less are okay.	Accept As-Is since EPNs are reported correctly. Descriptor fix can be worked out after system is delivered.	1/4/98 MV

SYSTEM ALARM REVIEW PAGE 0 *MORE*

```
09-SEP-99 00:10:22 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
09-SEP-99 00:10:22 CDCM   DCM0 STATUS CHANGE: STANDBY  -> RUNNING
09-SEP-99 00:08:19 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE
09-SEP-99 00:08:19 CDCM   DCM0 STATUS CHANGE: RUNNING  -> STANDBY
08-SEP-99 23:59:02 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:59:02 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:59:00 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:57 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:57 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:58:55 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:53 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:53 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:58:50 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:48 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:48 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:58:45 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:43 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:43 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:58:41 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:38 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:38 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
08-SEP-99 23:58:36 CDCM   DCM1 STATUS CHANGE: RUNNING  -> OFFLINE
08-SEP-99 23:58:33 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
08-SEP-99 23:58:33 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
                                                  09-SEP-99 00:15:42
```

1	A244	SHORTO	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORTO	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORTO	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORTO	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDS8 DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-101 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

PROGRAM
DIAGNOSTIC
(133)

1	ANFARM	TNKFRM	492		447
	ANHVC	TNKFRM	495		450
	ANVLV	TNKFRM			449
	AN271	TNKFRM			451
2	APFARM	TNKFRM	492		447
	APHVC	TNKFRM	495		450
	APVLV	TNKFRM			449
	AP271	TNKFRM			451
	AP102	TNKFRM			452
3	AWFARM	TNKFRM	492		447
	AWHVC	TNKFRM	495		450
	AWVLV	TNKFRM			449
	AW271	TNKFRM			451
4	XYZFRM	TNKFRM	492		447
	AFRM	TNKFRM	495		448
	AYFRM	TNKFRM			449
	AY-AZFRM	TNKFRM			450
5	BLDNG	TNKFRM	492	FALMON	495 FLGACK
25	BLANK0	BLANKK	168	FSL0	
6	BLANK1	BLANKK	168		

FHOLD
0
ON 00:00:17

TIME 0 17 33
HR MN SEC

DATE 9 9 99
DD MMM YY

DAY OF WEEK 4

********** RNK
ACK

09-SEP-99 00:17:36

INHIBITED ALARM SUMMARY PAGE 0

1 WFI-E101 ELUANT TANK CORRECTD

2 01-JAN-99 01:07:07

3

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19

20

RNK
(080) INHA0

09-SEP-99 00:21:23

1	A244	SHORT0	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORT0	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORT0	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORT0	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDS8 DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-101 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

PROGRAM
DIAGNOSTIC
(133)

1	ANFARM	TNKFRM	492		447		
	ANHVC	TNKFRM	495		450		
	ANVLV	TNKFRM			449		
	AN271	TNKFRM			451		
2	APFARM	TNKFRM	492		447		
	APHVC	TNKFRM	495		450		
	APVLV	TNKFRM			449		
	AP271	TNKFRM			451		
	AP102	TNKFRM			452		
3	AWFARM	TNKFRM	492		447		
	AWHVC	TNKFRM	495		450		
	AWVLV	TNKFRM			449		
	AW271	TNKFRM			451		
4	XYZFRM	TNKFRM	492		447		
	AFRM	TNKFRM	495		448		
	AYFRM	TNKFRM			449		
	AY-AZFRM	TNKFRM			450		
5	BLDNG	TNKFRM	492	FALMON	495	FLGACK	**********
25	BLANK0	BLANKK	168	FSL0			RNK
6	BLANK1	BLANKK	168				ACK

FHOLD
0
ON .00:00:17

TIME 0 17 33
HR MN SEC

DATE 9 9 99
DD MMM YY

DAY OF WEEK 4

09-SEP-99 00:17:36

INHIBITED ALARM SUMMARY PAGE 0

1 WFI-E101 ELUANT TANK CORRECTD

2 09-SEP-99 00:57:26

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RNK
(080) INHA0

09-SEP-99 00:57:58

AUDALARM0 ALM-ON

NAME	STATUS	ERRL	ERRN	NAME	STATUS	ERRL	ERRN
244BATCH	RUNNING	0	0	PCBATCH	RUNNING	0	0
244HVAC	RUNNING	0	0	IXBATCH	RUNNING	0	0
WSTXFR	RUNNING	0	0	SCBATCH	RUNNING	0	0
350BATCH	RUNNING	0	0	BASINBAT	RUNNING	0	0
FEEDBATCH	RUNNING	0	0	UTILBATCH	RUNNING	0	0
CA1BATCH	RUNNING	0	0	AMUBATCH	RUNNING	0	0
PB1BATCH	RUNNING	0	0	LERFBATCH	RUNNING	0	0
PB2BATCH	RUNNING	0	0	WHITE1		0	0
EA1BATCH	RUNNING	0	0				
EC1BATCH	WAIT	0	0				
RWBATCH	RUNNING	0	0				
URWBATCH	RUNNING	0	0				
VENTBATCH	RUNNING	0	0				

PGM0A RUNNING 3B 164

ON 00:00:04 OFF 00:00:00

4 DIAGNOSTIC

PROGRAM STATUS

(043)

RNK
PGMSTAT

01-JAN-00 09:45:41 P1

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

ETHERNET
LINK 0 ONLINE
LINK 1 ONLINE

TOKEN-RING

N/A

PAGE 0

01-JAN-00 09:48:29 P1

1	A244	SHORTO	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORTO	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORTO	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORTO	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDSB DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	START AMUBATCH PGM
21	LERF	PRCESS	364	FALMON	367	ACK	

1	ANFARM	TNKFRM	492		447		
	ANHVC	TNKFRM	495		450		
	ANVLV	TNKFRM			449		
	AN271	TNKFRM			451		
2	APFARM	TNKFRM	492		447		
	APHVC	TNKFRM	495		450		
	APVLV	TNKFRM			449		
	AP271	TNKFRM			451		
	AP102	TNKFRM			452		
3	AWFARM	TNKFRM	492		447		
	AWHVC	TNKFRM	495		450		
	AWVLV	TNKFRM			449		
	AW271	TNKFRM			451		
4	XYZFRM	TNKFRM	492		447		
	AFRM	TNKFRM	495		448		
	AYFRM	TNKFRM			449		
	AY-AZFRM	TNKFRM			450		
5	BLDNG	TNKFRM	492	FALMON	495	FLGACK	
25	BLANK0	BLANKK	168	FSL0			
6	BLANK1	BLANKK	168				

PROGRAM
DIAGNOSTIC
(133)

FHOLD
0
ON . 00:00:10

TIME 23 54 5
HR MN SEC

DATE 1 1 0
DD MMM YY

DAY OF WEEK 6

RNK
ACK

01-JAN-00 23:54:07 P1

SYSTEM ALARM REVIEW PAGE 0 *MORE*

```
02-JAN-00 00:15:32 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
02-JAN-00 00:15:32 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
02-JAN-00 00:15:32 CDCM   PCM0A STATUS CHANGE: OFFLINE  -> RUNNING
02-JAN-00 00:15:20 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
02-JAN-00 00:15:20 CDCM   DCM0 STATUS CHANGE: STANDBY  -> RUNNING
02-JAN-00 00:15:20 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE
02-JAN-00 00:15:20 CDCM   DCM0 STATUS CHANGE: RUNNING  -> STANDBY
02-JAN-00 00:15:17 CDCM   PCM0A STATUS CHANGE: RUNNING  -> OFFLINE
02-JAN-00 00:15:15 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE
02-JAN-00 00:08:24 PCM0A  SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: RWBATCH
02-JAN-00 00:08:23 PCM0A  SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: FEEDBATCH
02-JAN-00 00:08:23 PCM0A  SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: PB2BATCH
01-JAN-00 09:43:04 PCM0B  SEQUENCE PROGRAM SERIAL NUMBER MISMATCH: RWBATCH
01-JAN-00 09:39:29 PCM0B  SEQUENCE PROGRAM SERIAL NUMBER MISMATCH: PB2BATCH
01-JAN-00 09:34:43 PCM0B  SEQUENCE PROGRAM SERIAL NUMBER MISMATCH: FEEDBATCH


01-JAN-00 09:26:18 PCM1B  BACKUP STATUS CHANGE TO IN SYNCH
01-JAN-00 09:26:03 PCM1A  BACKUP STATUS CHANGE TO IN SYNCH
01-JAN-00 09:26:02 CDCM   PCM1B STATUS CHANGE: AUTO-SYNC ENABLED
01-JAN-00 09:26:00 PCM1B  BACKUP STATUS CHANGE TO INITIALIZING
01-JAN-00 09:26:00 PCM1B  RSYNC - CROSS INIT REQUEST: DV0386
01-JAN-00 09:26:00 PCM1B  RSYNC - CROSS INIT REQUEST: SE0386
01-JAN-00 09:25:57 PCM1A  R-LINK STATUS CHANGED TO ONLINE
                                                  02-JAN-00 00:16:51 P1
```

CRITICAL ALARM SUMMARY PAGE 0 *MORE*

DYNAMIC DISPLAY

0	02-JAN 00:12:44	PCM0A	WFI-E101	ELUANT TANK CORRECTDWT FACTR	HIHI
1	01-JAN 09:25:09	PCM1A	TI-K1-2	BUILDINGEXHAUST STACK TEMP	IBAD
2	01-JAN 09:25:08	PCM1A	TI-K1-12B	EVAP RM LOWER LEVEL TEMP	IBAD
3	01-JAN 09:25:08	PCM1A	TI-K1-12A	EVAP RM UPPER LEVEL TEMP	IBAD
4	01-JAN 09:25:08	PCM1A	TI-K1-4	CONDENSRROOM 5TH FL TEMP	IBAD
5	01-JAN 09:24:50	PCM1A	RSH-K1-11	BUILDINGEXHAUST BETA/GAMRADN HI	BAD
6	01-JAN 09:24:50	PCM1A	RSH-APK21	AP FARM K2 EXH RADN HIGH	BAD
7	01-JAN 09:24:50	PCM1A	RSH-APK11	AP FARM K1 EXH RADN HIGH	BAD
8	01-JAN 09:24:50	PCM1A	RSH-AP271	271-AP BUILDINGRADN HIGH	BAD
9	01-JAN 09:24:50	PCM1A	RSH-AP-2	AP TK FARM RADN HIGH	BAD
10	01-JAN 09:24:50	PCM1A	RSH-108AP	AP-108 ANN EXH RADN HIGH	BAD
11	01-JAN 09:24:50	PCM1A	RSH-107AP	AP-107 ANN EXH RADN HIGH	BAD
12	01-JAN 09:24:50	PCM1A	RSH-106AP	AP-106 ANN EXH RADN HIGH	BAD
13	01-JAN 09:24:50	PCM1A	RSH-AP05C	AP-05C LEAK PITRADN HIGH	BAD
14	01-JAN 09:24:50	PCM1A	RSH-105AP	AP-105 ANN EXH RADN HIGH	BAD
15	01-JAN 09:24:50	PCM1A	RSH-104AP	AP-104 ANN EXH RADN HIGH	BAD

* LEGAL CONSOLE POINTS * <DONE> 02-JAN-00 00:19:29 P1

1	A244	SHORTQ	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORTQ	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORTQ	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORTQ	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDSB DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	START AMUBATCH PGM
21	LERF	PRCESS	364	FALMON	367	ACK	

PROGRAM DIAGNOSTIC

(133)

1	ANFARM	TNKFRM	492		447		
	ANHVC	TNKFRM	495		450		
	ANVLV	TNKFRM			449		
	AN271	TNKFRM			451		
2	APFARM	TNKFRM	492		447		
	APHVC	TNKFRM	495		450		
	APVLV	TNKFRM			449		
	AP271	TNKFRM			451		
	AP102	TNKFRM			452		
3	AWFARM	TNKFRM	492		447		
	AWHVC	TNKFRM	495		450		
	AWVLV	TNKFRM			449		
	AW271	TNKFRM			451		
4	XYZFRM	TNKFRM	492		447		
	AFRM	TNKFRM	495		448		
	AYFRM	TNKFRM			449		
	AY-AZFRM	TNKFRM			450		
5	BLDNG	TNKFRM	492	FALMON	495	FLGACK	
25	BLANK0	BLANKK	168	FSL0			
6	BLANK1	BLANKK	168				

FHOLD
0
ON 00:00:20

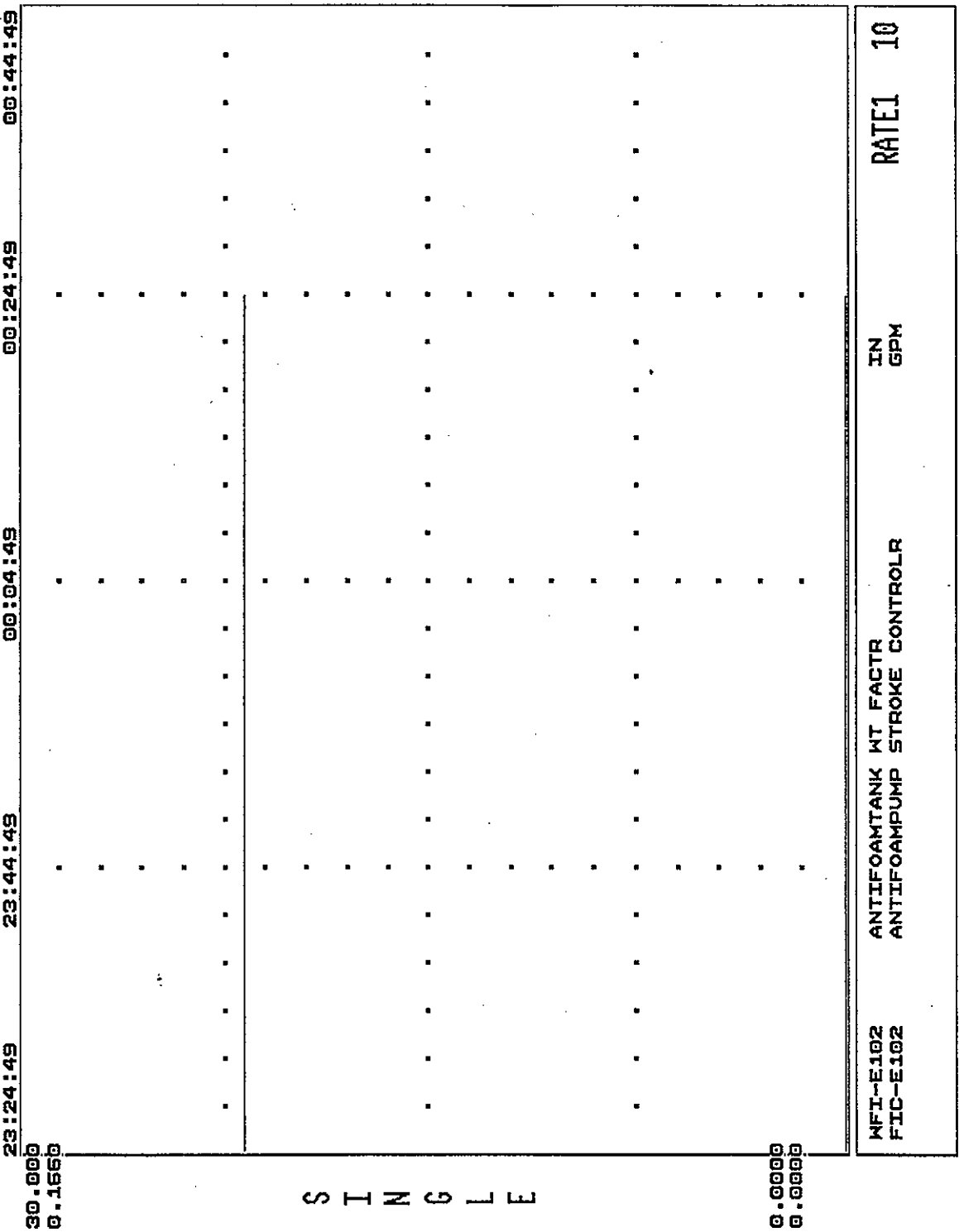
TIME 0 23 4
HR MN SEC

DATE 2 1 0
DD MMM YY

DAY OF WEEK 0

RNK
ACK

02-JAN-00 00:23:06 P1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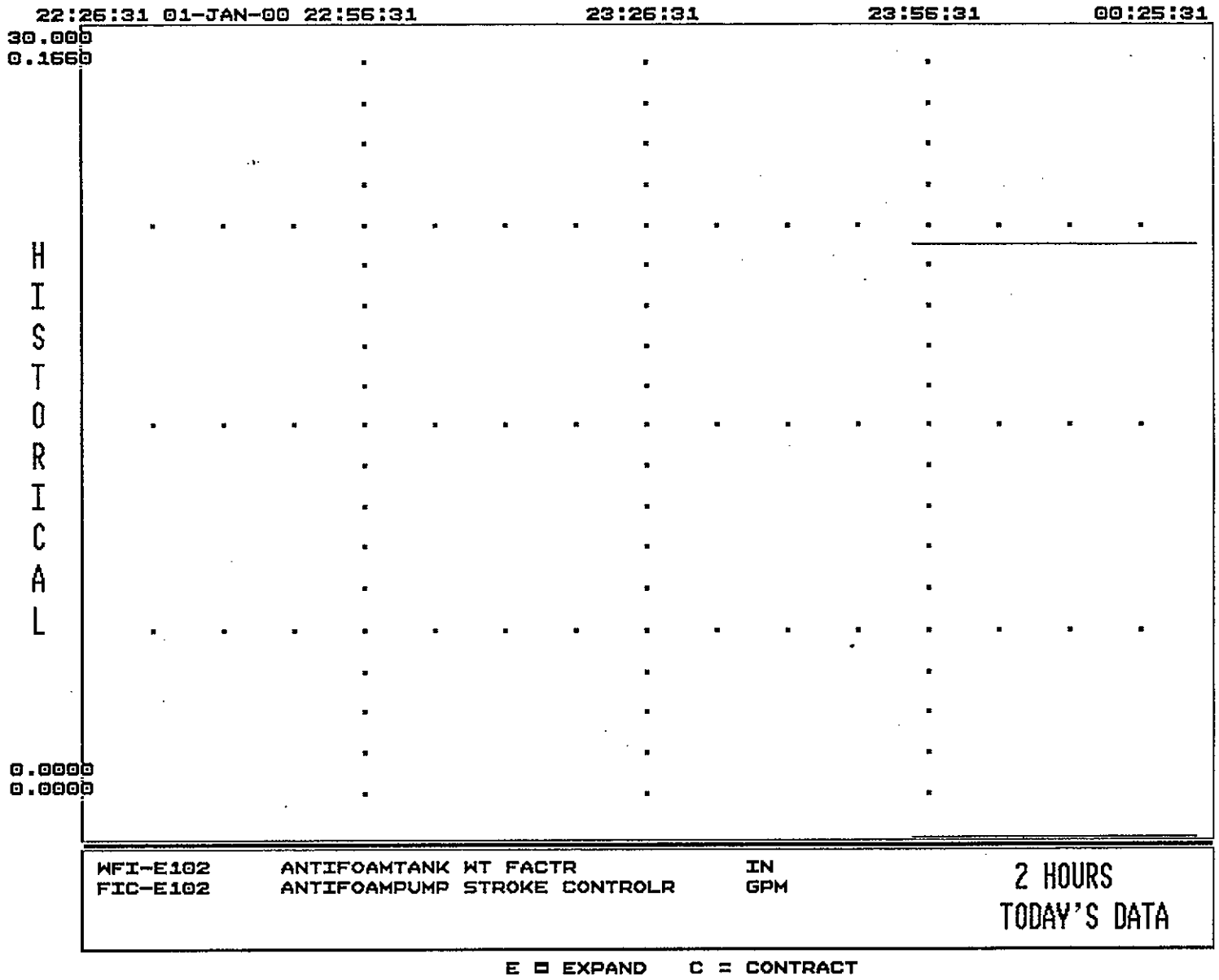
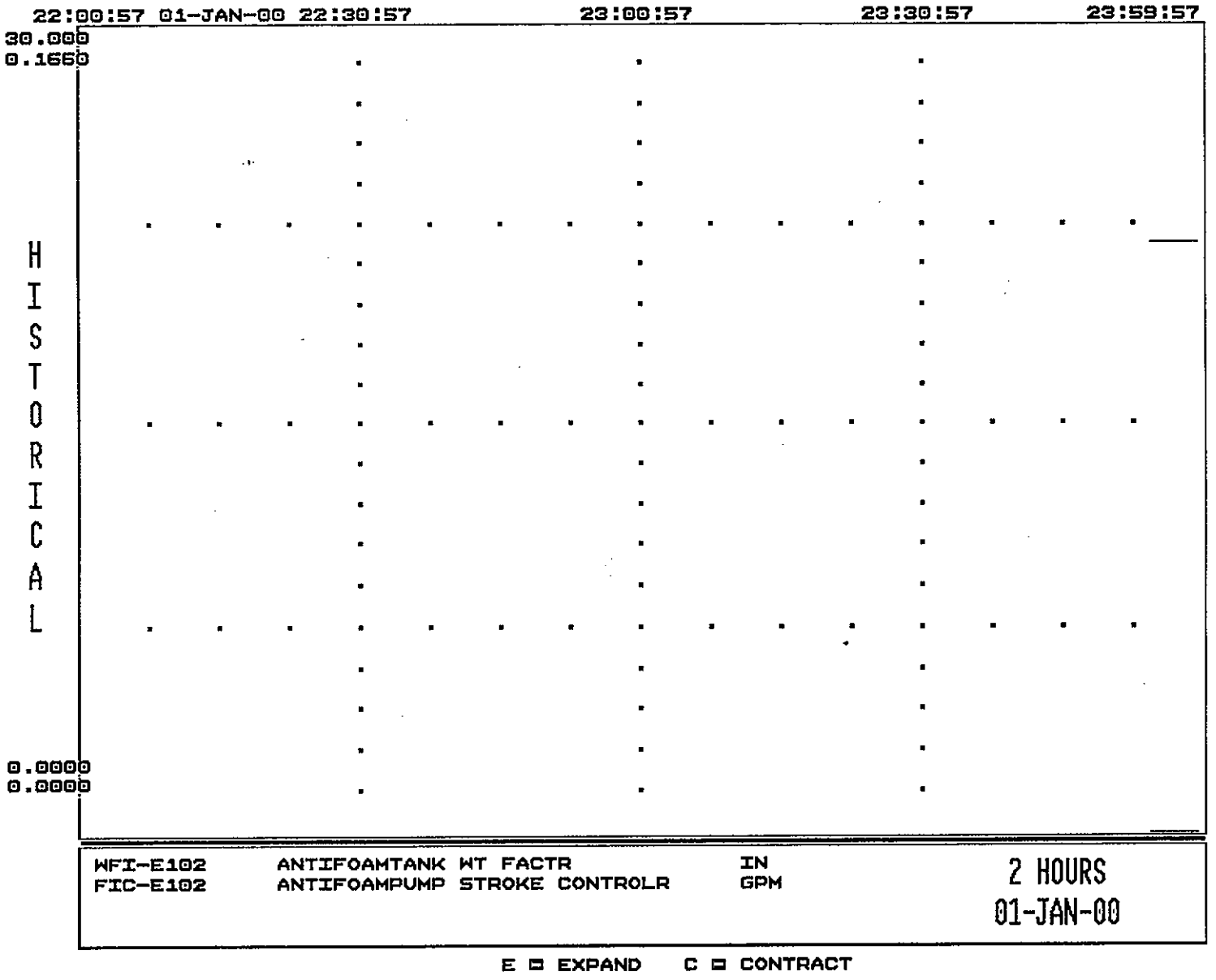
23:44:49
00:04:49
00:24:49
00:44:49
30.000
0.1650
0.0000
0.0000
SINGLE
WFI-E102 ANTIFOAMTANK WT FACTR IN
FIC-E102 ANTIFOAMPUMP STROKE CONTROLR GPM
RATE1 10
41 ELUANT/ANTIFOAM
02-JAN-00 00:24:58 P1


22:26:31 01-JAN-00
22:56:31
23:26:31
23:56:31
00:25:31
30.000
0.1660
HISTORICAL
0.0000
0.0000
WFI-E102 ANTIFOAMTANK WT FACTR IN
FIC-E102 ANTIFOAMPUMP STROKE CONTROLR GPM
2 HOURS
TODAY'S DATA
E = EXPAND C = CONTRACT
48 ELUANT/ANTIFOAM 02-JAN-00 00:27:27 P1


22:00:57 01-JAN-00
22:30:57
23:00:57
23:30:57
23:59:57
30.000
0.1660
HISTORICAL
0.0000
0.0000
WFI-E102 ANTIFOAMTANK WT FACTR IN
FIC-E102 ANTIFOAMPUMP STROKE CONTROLR GPM
2 HOURS
01-JAN-00
E = EXPAND C = CONTRACT
48 ELUANT/ANTIFOAM 02-JAN-00 01:04:54 P1

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

```
ETHERNET
   LINK 0 ONLINE
   LINK 1 ONLINE

TOKEN-RING

   N/A
```

PAGE 0

28-FEB-00 23:58:49

CDCM V9.0-2

NETWORK 0 STATUS

	UNIT		NAME	TYPE	STATUS	BACKUP
0	0	*	CDCM	CDCM P	RUNNING	NONE
1	1		DCM0	DCM	RUNNING	NONE
2	2		PCM0A	PCM	RUN-SEL	3
3	3		PCM0B	PCM	RUNNING	2
4	4		PCM1A	PCM	RUN-SEL	5
5	5		PCM1B	PCM	RUNNING	4
6	6		DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

```
ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A
```

PAGE 0

29-FEB-00 00:01:04

ALARM SUMMARY PAGE 0 *MORE*

DYNAMIC DISPLAY

0	29-FEB 00:54:30	PCM0A	WFI-E101	ELUANT TANK CORRECTDWT FACTR	HI
1					
2					
3					
4	29-FEB 00:27:48	PCM0A	CI-EA1-U1	HT XFER COEFF BTU/HR/ FT2/DEGF	LO
5					
6	29-FEB 00:27:29	PCM0A	PI-CA1-20	CONDSATERECYCLE OUTLET PRESSURE	LO
7					
8	29-FEB 00:27:28	PCM0A	TDIC-HC11	VES VENTHEATER DELTA T CONTROLR	LO
9					
10					
11	29-FEB 00:27:27	PCM0A	WFI-244TK	TK-244-AWEIGHT FACTOR	LO
12					
13					
14					
15					

29-FEB-00 00:59:19 P1

CRITICAL ALARM SUMMARY PAGE 0 *MORE*

DYNAMIC DISPLAY

0	29-FEB 00:54:30	PCM0A	WFI-E101	ELUANT TANK CORRECTDWT FACTR	HIHI
1	29-FEB 00:27:48	PCM0A	CI-EA1-U1	HT XFER COEFF BTU/HR/ FT2/DEGF	LOLO
2	29-FEB 00:27:29	PCM0A	PI-CA1-20	CONDSATERECYCLE OUTLET PRESSURE	LOLO
3	29-FEB 00:27:28	PCM0A	TDIC-HC11	VES VENTHEATER DELTA T CONTROLR	LOLO
4	29-FEB 00:27:27	PCM0A	WFI-244TK	TK-244-AWEIGHT FACTOR	LOLO
5	29-FEB 00:27:26	PCM0A	LI-CA1-3	EVAP CA1-3 CORRECTDWT FACTR	LO
6	29-FEB 00:27:26	PCM0A	FI-AS-5	VESSEL VENT EXHAUST FLOW	LOLO
7	29-FEB 00:27:26	PCM0A	FI-CA1-2	PB-2 SEAL WATER FLOW	LOLO
8	29-FEB 00:27:26	PCM0A	LIC-CA1-2	EVAP CA1-2 LEVEL CONTROLR	LOLO
9	29-FEB 00:27:25	PCM0A	FI-CA1-1	PB-1 SEAL WATER FLOW	LOLO
10	29-FEB 00:27:25	PCM0A	LIC-CA1-1	EVAP CA1-1 LEVEL CONTROLR	LOLO
11	29-FEB 00:27:25	PCM0A	WFIC-C100	TK-C-100WT FACTOR	LOLO
12	29-FEB 00:27:25	PCM0A	WFI-SUMP1	PUMP RM SUMP CORRECTDWT FACTR	LOLO
13	29-FEB 00:27:24	PCM0A	PI-CA1-10	PB-2 SEAL WATER PRESSURE	LOLO
14	29-FEB 00:27:24	PCM0A	PI-CA1-9	PB-1 SEAL WATER PRESSURE	LOLO
15	29-FEB 00:18:21	PCM1A	TI-K1-2	BUILDINGEXHAUST STACK TEMP	IBAD

29-FEB-00 01:01:49 P1

SYSTEM ALARM REVIEW PAGE 0 *MORE*

29-FEB-00 00:46:37 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: FHOLD
29-FEB-00 00:43:30 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: SCBATCH
29-FEB-00 00:43:30 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: RWBATCH
29-FEB-00 00:43:30 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: AMUBATCH
29-FEB-00 00:43:29 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: LERFBATCH
29-FEB-00 00:43:29 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: IXBATCH
29-FEB-00 00:43:29 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: PCBATCH
29-FEB-00 00:43:29 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: URWBATCH
29-FEB-00 00:43:28 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: VENTBATCH
29-FEB-00 00:43:28 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: FEEDBATCH
29-FEB-00 00:43:28 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: CA1BATCH
29-FEB-00 00:43:27 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: EA1BATCH
29-FEB-00 00:43:27 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: EC1BATCH
29-FEB-00 00:43:27 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: PB2BATCH
29-FEB-00 00:43:27 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: PB1BATCH
29-FEB-00 00:43:26 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: BASINBAT
29-FEB-00 00:43:26 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: UTILBATCH
29-FEB-00 00:43:26 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: WSTXFR
29-FEB-00 00:43:26 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: 350BATCH
29-FEB-00 00:43:25 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: 244HVAC
29-FEB-00 00:43:25 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: 244BATCH
29-FEB-00 00:43:25 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: PGM0A
29-FEB-00 00:43:25 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: TAG
29-FEB-00 00:43:25 PCM0A SEQUENCE PROGRAM NOT LOADED IN BOTH PCMS: TIMEINHA

29-FEB-00 01:05:04 P1

1	A244	SHORT0	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORT0	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORT0	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORT0	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDS8 DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-104 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

1	ANFARM	TNKFRM	492		447
	ANHVC	TNKFRM	495		450
	ANVLV	TNKFRM			449
	AN271	TNKFRM			451
2	APFARM	TNKFRM	492		447
	APHVC	TNKFRM	495		450
	APVLV	TNKFRM			449
	AP271	TNKFRM			451
	AP102	TNKFRM			452
3	AWFARM	TNKFRM	492		447
	AWHVC	TNKFRM	495		450
	AWVLV	TNKFRM			449
	AW271	TNKFRM			451
4	XYZFRM	TNKFRM	492		447
	AFRM	TNKFRM	495		448
	AYFRM	TNKFRM			449
	AY-AZFRM	TNKFRM			450
5	BLDNG	TNKFRM	492	FALMON	495 FLGACK
25	BLANK0	BLANKK	168	FSL0	
6	BLANK1	BLANKK	168		

PROGRAM
DIAGNOSTIC
(133)

FHOLD
1
ON .00:00:31

TIME 1 11 9
HR MN SEC

DATE 29 2 0
DD MMM YY

DAY OF WEEK 2

RNK
ACK

29-FEB-00 01:11:11 P1

INHIBITED ALARM SUMMARY PAGE 0 *MORE

1	PI-CA1-11	EVAP VACUUM 0-30 IN HG
2	PIC-CA1-7	EVAP ABSOLUTE
3	LIC-CA1-1	EVAP CA1-1 LEVEL CONTROLR
4	LIC-CA1-2	EVAP CA1-2 LEVEL CONTROLR
5	LI-CA1-3	EVAP CA1-3 CORRECTD
6	FIC-CA1-6	UPPER DE-ENTRN
7	FI-CA1-7	PB-1 PUMP RECIRC FLOW
8	VI-PB1-2A	PB-1 PUMP VERTICAL
9	VI-PB1-1A	PB-1 PUMP HORIZONT
10	VI-PB1-3A	PB-1 PUMP LATERAL
11	FI-CA1-1	PB-1 SEAL WATER FLOW
12	PI-CA1-9	PB-1 SEAL WATER PRESSURE
13	FI-CA1-3	RECIRC BYPASS SLURRY FLOW
14	PI-CA1-20	CONDSATE
15	SIC-PB2-1	SLURRY PUMP SPEED CONTROLR
16	VI-PB2-1A	PB-2 PUMP LATERAL
17	FI-CA1-2	PB-2 SEAL WATER FLOW
18	PI-CA1-10	PB-2 SEAL WATER PRESSURE
19	FIC-CA1-4	EVAP SLURRY FLOW
20	PI-EA1-14	10 PSI STEAM TO DESUP

29-FEB-00 01:19:18

(080) RNK INHA0

29-FEB-00 01:21:13 P1

AUDALARM0 ALM-ON

NAME	STATUS	ERRL	ERRN	NAME	STATUS	ERRL	ERRN
244BATCH	RUNNING	0	0	PCBATCH	RUNNING	0	0
244HVAC	RUNNING	0	0	IXBATCH	RUNNING	0	0
WSTXFR	RUNNING	0	0	SCBATCH	RUNNING	0	0
350BATCH	WAIT	0	0	BASINBAT	RUNNING	0	0
FEEDBATCH	RUNNING	0	0	UTILBATCH	RUNNING	0	0
CA1BATCH	WAIT	0	0	AMUBATCH	RUNNING	0	0
PB1BATCH	RUNNING	0	0	LERFBATCH	RUNNING	0	0
PB2BATCH	RUNNING	0	0	WHITE1		0	0
EA1BATCH	RUNNING	0	0				
EC1BATCH	RUNNING	0	0				
RWBATCH	RUNNING	0	0				
URWBATCH	RUNNING	0	0				
VENTBATCH	RUNNING	0	0				

PGM0A RUNNING 0 0

ON 00:00:07 OFF 00:00:00

4 DIAGNOSTIC

PROGRAM STATUS

(043)

RNK
PGMSTAT

29-FEB-00 01:32:20 P1

CDCM V9.0-2

NETWORK 0 STATUS

	UNIT		NAME	TYPE	STATUS	BACKUP
0	0	*	CDCM	CDCM P	RUNNING	NONE
1	1		DCM0	DCM	RUNNING	NONE
2	2		PCM0A	PCM	RUN-SEL	3
3	3		PCM0B	PCM	RUNNING	2
4	4		PCM1A	PCM	RUN-SEL	5
5	5		PCM1B	PCM	RUNNING	4
6	6		DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

```
ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A
```

PAGE 0

29-FEB-00 23:58:49

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A

PAGE 0

01-MAR-00 00:02:52

1	A244	SHORT0	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORT0	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORT0	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORT0	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDSB DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-104 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

PROGRAM DIAGNOSTIC

(133)

1	ANFARM	TNKFRM	492		447	
	ANHVC	TNKFRM	495		450	
	ANVLV	TNKFRM			449	
	AN271	TNKFRM			451	
2	APFARM	TNKFRM	492		447	
	APHVC	TNKFRM	495		450	
	APVLV	TNKFRM			449	
	AP271	TNKFRM			451	
	AP102	TNKFRM			452	
3	AWFARM	TNKFRM	492		447	
	AWHVC	TNKFRM	495		450	
	AWVLV	TNKFRM			449	
	AW271	TNKFRM			451	
4	XYZFRM	TNKFRM	492		447	
	AFRM	TNKFRM	495		448	
	AYFRM	TNKFRM			449	
	AY-AZFRM	TNKFRM			450	
5	BLDNG	TNKFRM	492	FALMON	495	FLGACK
25	BLANK0	BLANKK	168	FSL0		
6	BLANK1	BLANKK	168			

FHOLD
0
ON 00:00:29

TIME 0 11 16
HR MN SEC

DATE 1 3 0
DD MMM YY

DAY OF WEEK 3

RNK
ACK

01-MAR-00 00:11:18

AUDALARM0 ALM-ON

NAME	STATUS	ERRL	ERRN	NAME	STATUS	ERRL	ERRN
244BATCH	RUNNING	0	0	PCBATCH	RUNNING	0	0
244HVAC	WAIT	0	0	IXBATCH	RUNNING	0	0
WSTXFR	RUNNING	0	0	SCBATCH	RUNNING	0	0
350BATCH	RUNNING	0	0	BASINBAT	WAIT	0	0
FEEDBATCH	RUNNING	0	0	UTILBATCH	RUNNING	0	0
CA1BATCH	RUNNING	0	0	AMUBATCH	RUNNING	0	0
PB1BATCH	RUNNING	0	0	LERFBATCH	RUNNING	0	0
PB2BATCH	RUNNING	0	0	WHITE1		0	0
EA1BATCH	RUNNING	0	0				
EC1BATCH	RUNNING	0	0				
RWBATCH	RUNNING	0	0				
URWBATCH	RUNNING	0	0				
VENTBATCH	RUNNING	0	0				

PGM0A RUNNING 0 0

ON 00:00:05 OFF 00:00:00

4 DIAGNOSTIC

PROGRAM STATUS

(043)

RNK
PGMSTAT

01-MAR-00 00:26:58

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

ETHERNET
LINK 0 ONLINE
LINK 1 ONLINE

TOKEN-RING

N/A

PAGE 0

30-DEC-00 23:58:31

CDCM V9.0-2

NETWORK 0 STATUS

	UNIT		NAME	TYPE	STATUS	BACKUP
0	0	*	CDCM	CDCM P	RUNNING	NONE
1	1		DCM0	DCM	RUNNING	NONE
2	2		PCM0A	PCM	RUN-SEL	3
3	3		PCM0B	PCM	RUNNING	2
4	4		PCM1A	PCM	RUN-SEL	5
5	5		PCM1B	PCM	RUNNING	4
6	6		DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A

PAGE 0

31-DEC-00 00:02:59

SYSTEM ALARM REVIEW PAGE 0 *MORE*

```
31-DEC-00 00:06:41 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
31-DEC-00 00:06:41 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
31-DEC-00 00:06:41 CDCM   PCM0A STATUS CHANGE: OFFLINE  -> RUNNING
31-DEC-00 00:06:36 CDCM   PCM0A STATUS CHANGE: RUNNING  -> OFFLINE
31-DEC-00 00:06:34 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE



30-DEC-00 23:55:52 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
30-DEC-00 23:55:52 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> RUNNING
30-DEC-00 23:52:45 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
30-DEC-00 23:52:45 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
30-DEC-00 23:52:45 CDCM   DCM0 STATUS CHANGE: OFFLINE  -> RUNNING
30-DEC-00 23:52:42 CDCM   DCM0 STATUS CHANGE: RUNNING  -> OFFLINE
30-DEC-00 23:52:40 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
30-DEC-00 23:52:40 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
30-DEC-00 23:52:40 CDCM   DCM0 STATUS CHANGE: OFFLINE  -> RUNNING

30-DEC-00 23:52:37 CDCM   DCM0 STATUS CHANGE: RUNNING  -> OFFLINE
30-DEC-00 23:52:37 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
30-DEC-00 23:52:37 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
30-DEC-00 23:52:37 CDCM   DCM0 STATUS CHANGE: OFFLINE  -> RUNNING
```

31-DEC-00 00:07:51 P1

1	A244	SHORTO	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORTO	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORTO	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORTO	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDSB DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-104 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

1	ANFARM	TNKFRM	492		447
	ANHVC	TNKFRM	495		450
	ANVLV	TNKFRM			449
	AN271	TNKFRM			451
2	APFARM	TNKFRM	492		447
	APHVC	TNKFRM	495		450
	APVLV	TNKFRM			449
	AP271	TNKFRM			451
	AP102	TNKFRM			452
3	AWFARM	TNKFRM	492		447
	AWHVC	TNKFRM	495		450
	AWVLV	TNKFRM			449
	AW271	TNKFRM			451
4	XYZFRM	TNKFRM	492		447
	AFRM	TNKFRM	495		448
	AYFRM	TNKFRM			449
	AY-AZFRM	TNKFRM			450
5	BLDNG	TNKFRM	492	FALMON	495 FLGACK
25	BLANKO	BLANKK	168	FSLO	RNK
6	BLANK1	BLANKK	168		ACK

PROGRAM
DIAGNOSTIC
(133)

FHOLD
0
ON 00:00:13

TIME 0 17 20
HR MN SEC

DATE 31 12 0
DD MMM YY

DAY OF WEEK 0

31-DEC-00 00:17:22

AUDALARM0 ALM-ON

NAME	STATUS	ERRL	ERRN	NAME	STATUS	ERRL	ERRN
244BATCH	RUNNING	0	0	PCBATCH	RUNNING	0	0
244HVAC	WAIT	0	0	IXBATCH	WAIT	0	0
WSTXFR	RUNNING	0	0	SCBATCH	RUNNING	0	0
350BATCH	WAIT	0	0	BASINBAT	RUNNING	0	0
FEEDBATCH	RUNNING	0	0	UTILBATCH	RUNNING	0	0
CA1BATCH	RUNNING	0	0	AMUBATCH	RUNNING	0	0
PB1BATCH	RUNNING	0	0	LERFBATCH	RUNNING	0	0
PB2BATCH	RUNNING	0	0	WHITE1		0	0
EA1BATCH	RUNNING	0	0				
EC1BATCH	RUNNING	0	0				
RWBATCH	RUNNING	0	0				
URWBATCH	RUNNING	0	0				
VENTBATCH	RUNNING	0	0				
PGM0A	RUNNING	0	0				

ON 00:00:03 OFF 00:00:00

4 DIAGNOSTIC

PROGRAM STATUS

(043)

RNK
PGMSTAT

31-DEC-00 00:51:24

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

```
ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A
```

PAGE 0

28-FEB-01 23:56:39

CDCM V9.0-2

NETWORK 0 STATUS

UNIT		NAME	TYPE	STATUS	BACKUP
0	0 *	CDCM	CDCM P	RUNNING	NONE
1	1	DCM0	DCM	RUNNING	NONE
2	2	PCM0A	PCM	RUN-SEL	3
3	3	PCM0B	PCM	RUNNING	2
4	4	PCM1A	PCM	RUN-SEL	5
5	5	PCM1B	PCM	RUNNING	4
6	6	DCM1	DCM	RUNNING	NONE

CDCM UNIT 0 STATUS

ETHERNET
  LINK 0 ONLINE
  LINK 1 ONLINE

TOKEN-RING

  N/A

PAGE 0

01-MAR-01 00:00:23

ALARM SUMMARY PAGE 0

DYNAMIC DISPLAY

0	01-MAR 00:19:13	PCM0A	WFI-E104	DECON TANK CORRECTDWT FACTR	HI
1	01-MAR 00:11:12	PCM0A	WFI-E101	ELUANT TANK CORRECTDWT FACTR	HI

01-MAR-01 00:19:54 P1

CRITICAL ALARM SUMMARY PAGE 0

DYNAMIC DISPLAY

0	01-MAR 00:19:13	PCM0A	WFI-E104	DECON TANK CORRECTDWT FACTR	HIHI
1	01-MAR 00:11:12	PCM0A	WFI-E101	ELUANT TANK CORRECTDWT FACTR	HIHI

01-MAR-01 00:21:27 P1

SYSTEM ALARM REVIEW PAGE 0 *MORE*

```
01-MAR-01 00:12:58 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
01-MAR-01 00:12:58 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
01-MAR-01 00:12:58 CDCM   PCM0A STATUS CHANGE: OFFLINE  -> RUNNING
01-MAR-01 00:12:54 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
01-MAR-01 00:12:54 CDCM   DCM0 STATUS CHANGE: STANDBY  -> RUNNING
01-MAR-01 00:12:54 CDCM   DCM0 LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE
01-MAR-01 00:12:54 CDCM   DCM0 STATUS CHANGE: RUNNING  -> STANDBY
01-MAR-01 00:12:51 CDCM   PCM0A STATUS CHANGE: RUNNING  -> OFFLINE
01-MAR-01 00:12:49 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE
01-MAR-01 00:07:57 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_1 TO ONLINE
01-MAR-01 00:07:57 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
01-MAR-01 00:07:57 CDCM   PCM0A STATUS CHANGE: OFFLINE  -> RUNNING
01-MAR-01 00:07:55 CDCM   PCM0A STATUS CHANGE: RUNNING  -> OFFLINE
01-MAR-01 00:07:52 CDCM   PCM0A LINK STATUS CHANGE: ETHERNET_0 TO OFFLINE


28-FEB-01 23:55:24 CDCM   DCM1 STATUS CHANGE: STANDBY  -> RUNNING
28-FEB-01 23:55:21 CDCM   DCM1 LINK STATUS CHANGE: ETHERNET_0 TO ONLINE
28-FEB-01 23:55:21 CDCM   DCM1 STATUS CHANGE: OFFLINE  -> STANDBY
28-FEB-01 23:53:22 CDCM   DCM0 STATUS CHANGE: STANDBY  -> RUNNING
28-FEB-01 23:53:19 CDCM   DCM0 STATUS CHANGE: RUNNING  -> STANDBY
```

01-MAR-01 00:24:26 P1

1	A244	SHORT0	204	FALMON	207	ACK	244BATCH PGM STARTING
2	HVC244	SHORT0	204	FALMON	207	ACK	244-A EXH STK FLO LO
3	WASTE	SHORT0	204	FALMON	207	ACK	WSTXFR PGM STARTING
4	A350	SHORT0	204	FALMON	207	ACK	350BATCH PGM STARTING
5	FEED	PRCESS	364	FALMON	367	ACK	
6	CA1	PRCESS	364	FALMON	367	ACK	
7	PB1	PRCESS	364	FALMON	367	ACK	
8	PB2	PRCESS	364	FALMON	367	ACK	
9	EA1	PRCESS	364	FALMON	367	ACK	
10	EC1	PRCESS	364	FALMON	367	ACK	
11	RWATER	PRCESS	364	FALMON	367	ACK	
12	URW	PRCESS	364	FALMON	367	ACK	
13	VVENT	PRCESS	364	FALMON	367	ACK	
14	PC	PRCESS	364	FALMON	367	ACK	
15	IX	PRCESS	364	FALMON	367	ACK	
16	SC	PRCESS	364	FALMON	367	ACK	STEAM CNDS8 DIVERTED TO 102AW
17	BASINS	PRCESS	364	FALMON	367	ACK	BASINBAT.SEQ START
18	UTIL	PRCESS	364	FALMON	367	ACK	
19	ROOMS	PRCESS	364	FALMON	367	ACK	
20	AMU	PRCESS	364	FALMON	367	ACK	TK-E-104 WT FACTOR LO-LO
21	LERF	PRCESS	364	FALMON	367	ACK	

1	ANFARM	TNKFRM	492		447	
	ANHVC	TNKFRM	495		450	
	ANVLV	TNKFRM			449	
	AN271	TNKFRM			451	
2	APFARM	TNKFRM	492		447	
	APHVC	TNKFRM	495		450	
	APVLV	TNKFRM			449	
	AP271	TNKFRM			451	
	AP102	TNKFRM			452	
3	AWFARM	TNKFRM	492		447	
	AWHVC	TNKFRM	495		450	
	AWVLV	TNKFRM			449	
	AW271	TNKFRM			451	
4	XYZFRM	TNKFRM	492		447	
	AFRM	TNKFRM	495		448	
	AYFRM	TNKFRM			449	
	AY-AZFRM	TNKFRM			450	
5	BLDNG	TNKFRM	492	FALMON	495	FLGACK
25	BLANK0	BLANKK	168	FSL0		
6	BLANK1	BLANKK	168			

PROGRAM

DIAGNOSTIC

(133)

FHOLD
1
ON 00:00:32

TIME 0 26 12
HR MN SEC

DATE 1 3 1
DD MMM YY

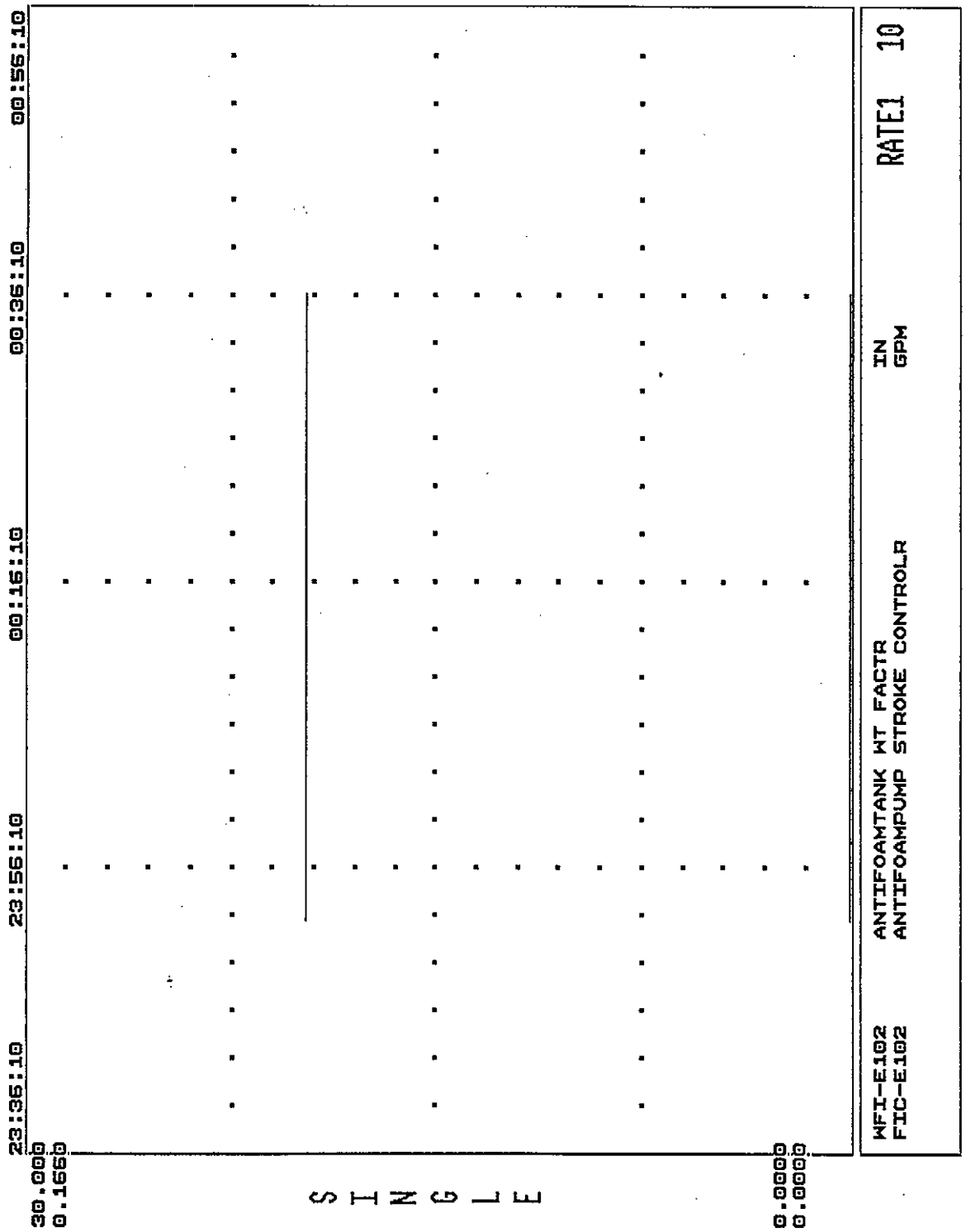
DAY OF WEEK 4

RNK
ACK

01-MAR-01 00:26:17

INHIBITED ALARM SUMMARY PAGE 0 *MORE

1	PI-CA1-11	EVAP VACUUM 0-30 IN HG		
2	PIC-CA1-7	EVAP ABSOLUTE	01-MAR-01	00:27:08
3	LIC-CA1-1	EVAP CA1-1 LEVEL CONTROLR		
4	LIC-CA1-2	EVAP CA1-2 LEVEL CONTROLR		
5	LI-CA1-3	EVAP CA1-3 CORRECTD		
6	FIC-CA1-6	UPPER DE-ENTRN		
7	FI-CA1-7	PB-1 PUMP RECIRC FLOW		
8	VI-PB1-2A	PB-1 PUMP VERTICAL		
9	VI-PB1-1A	PB-1 PUMP HORIZONT		
10	VI-PB1-3A	PB-1 PUMP LATERAL		
11	FI-CA1-1	PB-1 SEAL WATER FLOW		
12	PI-CA1-9	PB-1 SEAL WATER PRESSURE		
13	FI-CA1-3	RECIRC BYPASS SLURRY FLOW		
14	PI-CA1-20	CONDSATE		
15	SIC-PB2-1	SLURRY PUMP SPEED CONTROLR		
16	VI-PB2-1A	PB-2 PUMP LATERAL		
17	FI-CA1-2	PB-2 SEAL WATER FLOW		
18	PI-CA1-10	PB-2 SEAL WATER PRESSURE		
19	FIC-CA1-4	EVAP SLURRY FLOW		
20	PI-EA1-14	10 PSI STEAM TO DESUP		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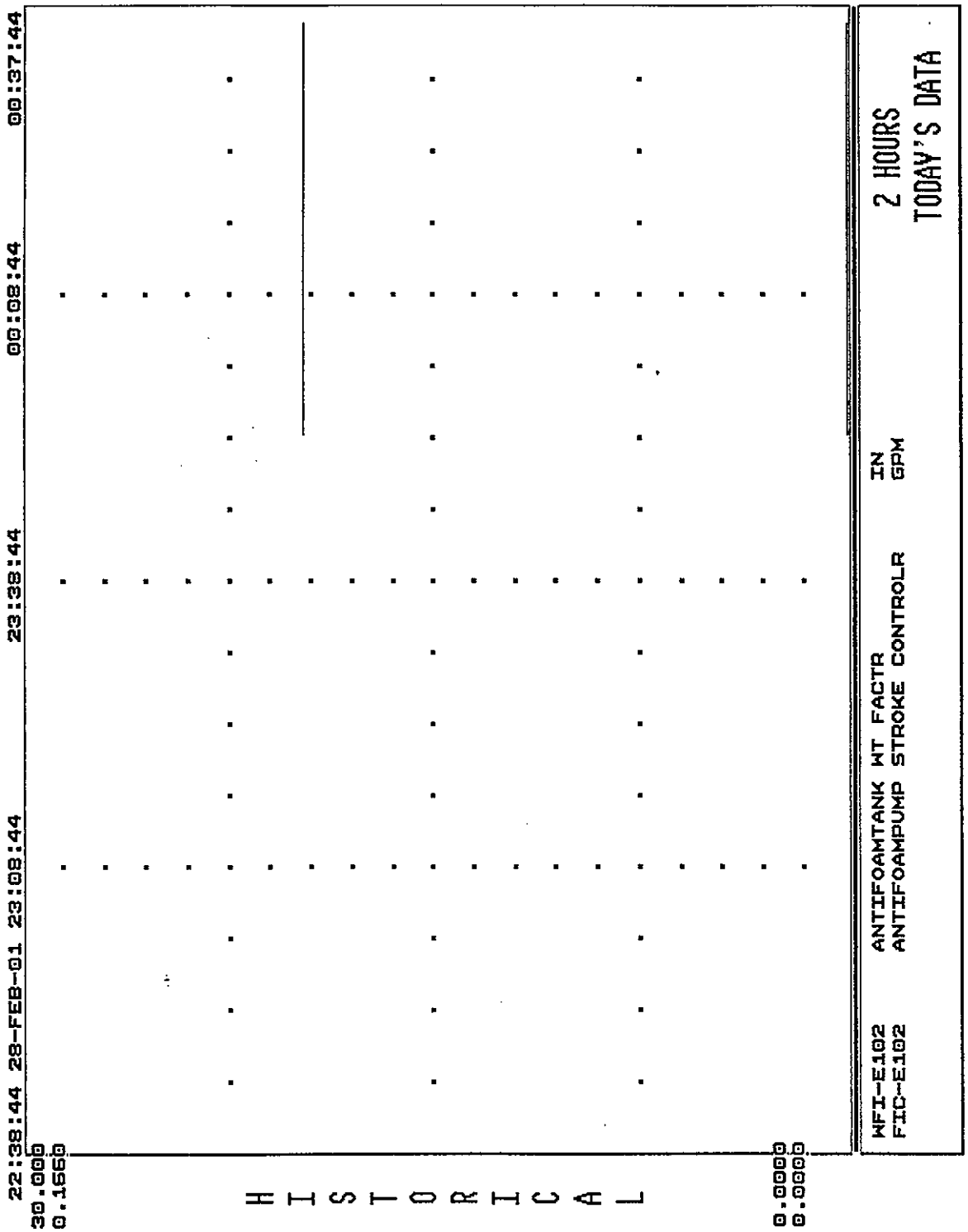
0.0000
0.0000
SINGLE
WFI-E102 ANTIFOAMTANK WT FACTR IN
FIC-E102 ANTIFOAMPUMP STROKE CONTROLR GPM
RATE1 10
41 ELUANT/ANTIFOAM
01-MAR-01 00:36:15


22:38:44 28-FEB-01 23:08:44
23:38:44
00:08:44
00:37:44
30.000
0.1660
0.0000
0.0000
HISTORICAL
WFI-E102 ANTIFOAMTANK WT FACTR IN
FIC-E102 ANTIFOAMPUMP STROKE CONTROLR GPM
2 HOURS
TODAY'S DATA
E = EXPAND C = CONTRACT
48 ELUANT/ANTIFOAM

AUDALARM0 ALM-ON

NAME	STATUS	ERRL	ERRN	NAME	STATUS	ERRL	ERRN
244BATCH	RUNNING	0	0	PCBATCH	RUNNING	0	0
244HVAC	RUNNING	0	0	IXBATCH	RUNNING	0	0
WSTXFR	RUNNING	0	0	SCBATCH	RUNNING	0	0
350BATCH	RUNNING	0	0	BASINBAT	WAIT	0	0
FEEDBATCH	RUNNING	0	0	UTILBATCH	RUNNING	0	0
CA1BATCH	RUNNING	0	0	AMUBATCH	RUNNING	0	0
PB1BATCH	RUNNING	0	0	LERFBATCH	RUNNING	0	0
PB2BATCH	RUNNING	0	0	WHITE1		0	0
EA1BATCH	RUNNING	0	0				
EC1BATCH	RUNNING	0	0				
RWBATCH	RUNNING	0	0				
URWBATCH	RUNNING	0	0				
VENTBATCH	RUNNING	0	0				
PGM0A	RUNNING	0	0				

ON 00:00:05 OFF 00:00:00

4 DIAGNOSTIC

PROGRAM STATUS

(043)

RNK
PGMSTAT

01-MAR-01 01:02:36

MATERIAL BALANCE
21-DEC-98

TANK FARM DATA

TANK FARM INPUT = 3787.80 GAL

	READING
FQI-CA1-4	0.00
FQI-PB1-W	1350.30
FQI-PB2-W	2437.50
FQI-CA1-D	0.00
FQI-RC1-D	0.00
FQI-RC3-D	0.00
FQI-AN-1	0.00
FQI-APSP1	0.00
FQI-AW-1	0.00
UNMETERED VOL	0.00
FARM FLUSH H2O	0.00

TANK FARM ACC = 0.00 GAL

	TODAY	YESTERDAY	DIFF (IN)
TK-102-AW	111.00	111.00	0.00
106AW	222.00	222.00	0.00
NONE	0.00	0.00	0.00

TANK FARM OUTPUT = 5.00 GAL

FQI-CA1-1 x 10.	5.00

EVAPORATOR DATA

EVAPORATOR INPUT = 165.50 GAL

	READING
FQI-CA1-1	5.00
FQI-CA1-6	0.00
FQI-EC2/3	0.00
FQI-RW-1	0.00
FQI-E102	160.50
FQI-E104	0.00

EVAPORATOR ACC = 0.80 GAL

	TODAY	YESTERDAY	DIFF
LI-C100-G	7224.00	7224.00	0.00
LI-SUMP1	498.70	498.00	0.70
CA1 LEVEL	24441.10	24441.00	0.10

DIP TUBE USED: LI-CA1-1G

EVAPORATOR OUTPUT = 0.00 GAL

FQI-RC3NM	0.00
FQI-CA1-4	0.00
FQI-RC3-D	0.00
FQI-PB1-W	1350.30
FQI-PB2-W	2437.50
FQI-PB12W	3787.80
UNMETERED VOL	0.00

		LIMITS:
EVAPORATOR MATERIAL BALANCE DISCREPANCY =	164.70	-5000., +5000. GAL
TANK FARM MATERIAL BALANCE DISCREPANCY =	3782.80	-5000., +5000. GAL
DAILY TANK FARM WASTE VOLUME REDUCTION =	-0.80	

** = OUT OF LIMITS

OPERATOR_____ SHIFT MANAGER_____

DIRECTORY D3HIS:[HTD]

CDCM001.01C;1	6	2-JAN-2000 00:00:50.13
CDCM001.01D;1	3392	1-JAN-2000 23:55:00.04
CDCM001.01H;1	12	2-JAN-2000 00:00:50.02
CDCM001.01X;1	24	2-JAN-2000 00:00:50.27
CDCM002.28C;1	6	29-FEB-2000 00:00:09.18
CDCM002.28D;1	3392	28-FEB-2000 23:55:00.04
CDCM002.28H;1	12	29-FEB-2000 00:00:09.00
CDCM002.28X;1	24	29-FEB-2000 00:00:09.30
CDCM002.29C;1	6	1-MAR-2000 00:00:07.41
CDCM002.29D;1	3392	29-FEB-2000 23:55:00.06
CDCM002.29H;1	12	1-MAR-2000 00:00:07.27
CDCM002.29X;1	24	1-MAR-2000 00:00:07.58
CDCM012.30C;1	6	31-DEC-2000 00:00:49.62
CDCM012.30D;1	3392	30-DEC-2000 23:55:00.21
CDCM012.30H;1	12	31-DEC-2000 00:00:49.42
CDCM012.30X;1	24	31-DEC-2000 00:00:49.84
CDCM102.28C;1	6	1-MAR-2001 00:00:35.98
CDCM102.28D;1	3392	28-FEB-2001 23:55:00.06
CDCM102.28H;1	12	1-MAR-2001 00:00:35.89
CDCM102.28X;1	24	1-MAR-2001 00:00:36.07
CDCM812.31C;1	6	31-DEC-1998 23:59:54.14
CDCM812.31D;1	3392	31-DEC-1998 23:55:00.07
CDCM812.31H;1	12	31-DEC-1998 23:59:53.92
CDCM812.31X;1	24	31-DEC-1998 23:59:54.27
CDCM909.08C;1	6	8-SEP-1999 23:59:57.91
CDCM909.08D;1	3392	8-SEP-1999 23:55:00.10
CDCM909.08H;1	12	8-SEP-1999 23:59:57.78
CDCM909.08X;1	24	8-SEP-1999 23:59:58.05
CDCM912.31C;1	6	1-JAN-2000 00:00:50.26
CDCM912.31D;1	3392	31-DEC-1999 23:55:00.08
CDCM912.31H;1	12	1-JAN-2000 00:00:50.14
CDCM912.31X;1	24	1-JAN-2000 00:00:50.41

TOTAL OF 32 FILES, 27472 BLOCKS.

```
DIRECTORY D3HIS:[AHF]

AL01JAN00.000_CDCM;1     76   1-JAN-2000 00:00:06.97
AL01JAN99.000_CDCM;1     73   1-JAN-1999 00:00:02.42
AL01MAR00.000_CDCM;1     13   1-MAR-2000 00:00:06.28
AL01MAR01.000_CDCM;1     34   1-MAR-2001 00:00:01.51
AL02JAN00.000_CDCM;1     16   2-JAN-2000 00:00:08.24
AL08SEP99.000_CDCM;1     20   8-SEP-1999 23:53:53.84
AL09SEP99.000_CDCM;1     58   9-SEP-1999 00:00:11.84
AL10DEC98.000_CDCM;1     18   10-DEC-1998 00:00:12.09
AL11DEC98.000_CDCM;1     160  11-DEC-1998 00:00:07.00
AL12DEC98.000_CDCM;1     6    12-DEC-1998 00:00:03.96
AL13DEC98.000_CDCM;1     5    13-DEC-1998 00:00:09.52
AL14DEC98.000_CDCM;1     149  14-DEC-1998 00:00:02.57
AL15DEC98.000_CDCM;1     552  15-DEC-1998 00:00:10.10
AL16DEC98.000_CDCM;1     491  16-DEC-1998 00:00:00.99
AL17DEC98.000_CDCM;1     369  17-DEC-1998 00:00:03.07
AL18DEC98.000_CDCM;1     19   18-DEC-1998 17:27:24.79
AL19DEC98.000_CDCM;1     418  19-DEC-1998 00:00:04.56
AL20DEC98.000_CDCM;1     7    20-DEC-1998 00:00:00.73
AL21DEC98.000_CDCM;1     13   21-DEC-1998 00:00:02.65
AL28FEB00.000_CDCM;1     7    28-FEB-2000 23:52:43.52
AL28FEB01.000_CDCM;1     6    28-FEB-2001 23:52:13.49
AL29FEB00.000_CDCM;1     225  29-FEB-2000 00:00:03.39
AL30DEC00.000_CDCM;1     8    30-DEC-2000 23:52:16.05
AL31DEC00.000_CDCM;1     23   31-DEC-2000 00:00:06.37
AL31DEC98.000_CDCM;1     50   31-DEC-1998 23:50:33.13
AL31DEC99.000_CDCM;1     7    31-DEC-1999 23:50:26.97

TOTAL OF 26 FILES, 2823 BLOCKS.
```

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**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;8

SEQUENCE INSTRUCTION COMPILER LISTING  01-MAR-01  01:01:10
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;7

SEQUENCE INSTRUCTION COMPILER LISTING  31-DEC-00  01:08:47
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;6

SEQUENCE INSTRUCTION COMPILER LISTING  01-MAR-00  01:18:37
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;5

SEQUENCE INSTRUCTION COMPILER LISTING  29-FEB-00  01:41:52
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;4

SEQUENCE INSTRUCTION COMPILER LISTING  02-JAN-00  01:07:15
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;3

SEQUENCE INSTRUCTION COMPILER LISTING  09-SEP-99  01:04:30
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;2

SEQUENCE INSTRUCTION COMPILER LISTING  01-JAN-99  03:23:57
DUMMYS       PAGE 1

**********************************
D3APP:[PCM0A.SABL]DUMMYS.LST;1

SEQUENCE INSTRUCTION COMPILER LISTING  17-DEC-98  17:00:33
DUMMYS       PAGE 1
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********************************
D3APP:[CSPECIALS]DUMMY.LIS;2

SOURCE LISTING          16-DEC-1998 17:57:19  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;3

SOURCE LISTING          1-JAN-1999 03:19:45  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;4

SOURCE LISTING          9-SEP-1999 00:40:33  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;5

SOURCE LISTING          2-JAN-2000 00:41:51  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;6

SOURCE LISTING          29-FEB-2000 01:31:20  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;7

SOURCE LISTING          1-MAR-2000 00:25:58  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;8

SOURCE LISTING          31-DEC-2000 00:49:04  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;9

SOURCE LISTING          31-DEC-2000 01:08:10  DEC C V5.5-003

********************************
D3APP:[CSPECIALS]DUMMY.LIS;10

SOURCE LISTING          1-MAR-2001 01:00:18  DEC C V5.5-003
```