DOE/LLW-206

Model Tracking System for Low-Level Radioactive Waste Disposal Facilities:

License Application Interrogatories and Responses

M. Erin Benbennick
Michael S. Broton
John S. Fuoto
Robert L. Novgrod
Ogden Environmental & Energy Services

Published August 1994

Idaho National Engineering Laboratory
EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

Prepared for the
U.S. Department of Energy
Assistant Secretary for Environmental Management
Under DOE Idaho Operations Office
Contract DE-AC07-76ID01570

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ABSTRACT

This report describes a model tracking system for a low-level radioactive waste (LLW) disposal facility license application. In particular, the model tracks interrogatories (questions, requests for information, comments) and responses. A set of requirements and desired features for the model tracking system was developed, including required structure and computer screens. Nine tracking systems were then reviewed against the model system requirements and only two were found to meet all requirements. Using Kepner-Tregoe decision analysis, a model tracking system was selected.

EXECUTIVE SUMMARY

This report identifies a model tracking system for State regulators to use during the review and evaluation of a license application for an LLW disposal facility. The model tracking system provides enhanced ability to track, sort, classify, and cross reference interrogatories. This can provide significant benefits to the facility licensing process, which include

- Ensuring that all interrogatories have been addressed
- Minimizing public resources required
- Simplifying the process for ensuring that all commitments are appropriately incorporated as license conditions
- Simplifying administration of the review process
- Allowing ready retrieval of information by topical area, review step, or discipline
- Minimizing research time
- Facilitating preparation for any court challenges.

The experience of eight States, including Nebraska, Illinois, and California, was considered in the development of requirements for a model tracking system. In addition, similar tracking systems in use by commercial nuclear utilities and the U.S. Marine Corps were also reviewed. Based on the results of these reviews, a set of requirements for the model tracking system was developed.

Basic screens and report formats for the model tracking system were also developed as well as a data dictionary and general hardware and software requirements. The model tracking system recommends the use of PC hardware using FoxPro in a Windows or DOS application.

Nine approaches for meeting the requirements were then analyzed using Kepner-Tregoe (K-T) decision analysis methodology against seven model tracking system "musts," which are as follows:

- The system must be capable of recording and tracking interrogatories and responses
- The hardware and software must be readily available
- The system must be available during normal work hours
- The system must have adequate storage for program and data
- The system must require minimum computer expertise to operate and maintain

- The system must have a controllable configuration

- The system must have security features for Add/Edit/Delete capabilities.

Only two of these approaches, Commitment and Action Tracking System (CATS) and Licensing Research System (LRS) were found to meet all "musts" and were then further evaluated for this application. LRS was determined to be the best platform for development of the model tracking system. LRS is designed for IBM PC compatible computers.

The logistics for implementing the model system include installation, testing and validation, training, and transfer of information from existing systems. The need for additional computer hardware is dependent upon the current system used by the individual States. PC hardware is already generally available among the States contacted. It is estimated that each State will require about 40 staff-hours to load and test the model tracking system and validate the code tables. Procurement of additional software is not expected to exceed $1,500.

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ACRONYMS AND ABBREVIATIONS

CATS	Commitment and Action Tracking System
CFR	Code of Federal Regulations
DBMS	data base management system
DEHNR	North Carolina Department of Environment, Health and Natural Resources
DOS	Disk Operation System
DRR	Document Review Record
EIS	Environmental Impact Statement
FOAL	Follow-On Activities List
IBM	International Business Machines
K-T	Kepner-Tregoe
LAN	local area network
LLW	low-level radioactive waste
LRS	Licensing Research System
MCADMS	Marine Corps Acquisition Deliverables Management System
MB	Megabyte (1 Million bytes)
NLLWMP	National Low-Level Waste Management Program
NRC	U.S. Nuclear Regulatory Commission
PC	Personal Computer
RCMP	Regulatory Commitment Management Project
SAR	Safety Analysis Report
SER	Safety Evaluation Report

SQL	Structured Query Language
TERMS	Toledo Edison Regulatory Management System
VMS	Virtual Memory System

1. INTRODUCTION

1.1 Background

The Low-Level Radioactive Waste Policy Amendments Act of 1985 requires the U.S. Department of Energy (DOE) to provide technical assistance to compact regions, host States, and unaffiliated States. The National Low-Level Waste Management Program (NLLWMP) at the Idaho National Engineering Laboratory (INEL) provides technical support to DOE and host States on the development of new low-level radioactive waste (LLW) disposal facilities.

1.2 Purpose

The purpose of this report is to develop a model tracking system that will assist State regulators during the review and evaluation of a license application for an LLW disposal facility. This review is performed in accordance with the requirements of the Code of Federal Regulations 10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste," or compatible State regulations conforming to Section 274 of the Atomic Energy Act. During the review and evaluation of such an application, including associated public hearings and litigation, participants can generate several thousand interrogatories. These must be recorded, reviewed, and dispositioned before a license is issued to construct and operate an LLW disposal facility. A suitable interrogatory tracking system can facilitate this process.

This report evaluates process needs, looks at State tracking methods used and similar tracking systems currently in use, and develops the requirements using Kepner-Tregoe (K-T) decision analysis methodology. It then recommends model tracking system hardware and software that can be readily adopted for use by State regulators.

1.3 Organization of the Report

This report starts with a discussion of the LLW disposal facility license application and review process in Section 2. This section also discusses how those process needs justify the development and use of a suitable interrogatory tracking system. Section 3 discusses the experience of California, Illinois, Nebraska, and other States in tracking interrogatories during the actual process of reviewing and evaluating an LLW license application.

Section 4 summarizes the tracking methods currently used by the States, commercial nuclear utilities and the U.S. Marine Corps.

Section 5 provides the general requirements for the model tracking system, including the recommended screens. The basis for selection of the model tracking system is provided in Section 6. The logistics for the recommended tracking system are then provided in Section 7 to give a more thorough picture of what is required for a State to implement this system.

Sections 8, 9 and 10 provide a summary of the report, references, and appendices, including the data dictionary and sample hard-copy reports.

2. LLW LICENSING PROCESS

Licensing of LLW disposal facilities can be accomplished under either the regulations of the U.S. Nuclear Regulatory Commission (NRC) or by similar compatible regulations of Agreement States. Section 274 of the Atomic Energy Act enables States to regulate byproduct material, source material, and small quantities of special nuclear material, including the disposal of such material. An Agreement State must enact laws that regulate licensing, inspection, and enforcement. In addition, the State must establish an independent radiation control program with a sufficient number of trained personnel to perform its regulatory functions, which include licensing and verification of compliance. Before entering into an Agreement, the NRC must make a finding that the State's radiation control program is compatible with that of the NRC and is adequate to protect the public health and safety. Thus, the regulator can be a State agency or the NRC.

2.1 Applicable Regulations and Implementing Guidance

The NRC promulgated Title 10 of the Code of Federal Regulations Part 61 (10 CFR 61), "Licensing Requirements for Land Disposal of Radioactive Waste," to regulate the licensing of LLW disposal facilities. The NRC also provided implementing guidance that includes

- NUREG-1199, *Standard Format and Content of a License Application for a Low-Level Radioactive Waste Disposal Facility*
- NUREG-1200, *Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Waste Disposal Facility*
- Regulatory Guide 4.18, *Standard Format and Content of Environmental Reports for Near-Surface Disposal of Radioactive Waste*
- NUREG-1300, *Environmental Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Waste Disposal Facility.*

These documents provide licensing procedures, performance objectives, and technical requirements for the issuance of licenses for LLW disposal facilities. The performance objectives and the technical aspects of 10 CFR 61 are considered matters of compatibility. In this manner, a consistent nationwide regulatory program for land disposal of LLW has been implemented. Review of materials and discussions with regulators from several States (e.g., Nebraska, California, Illinois, North Carolina, Texas, and New York) show that the licensing procedures and implementing guidance are the same as or quite similar to the NRC's.

2.2 Basic Licensing Process Steps

The basic process for licensing encompasses the following steps:

1. Typically, preliminary discussions between the prospective applicant and the regulator are begun before the license application is submitted. This includes alternative sites considered, basic technical approach, and project schedule.

2. A site screening process is begun that usually involves a public hearing or hearings at suitable stages.

3. The applicant submits a license application for review. The license application includes both a Safety Analysis Report (SAR) and an Environmental Report (ER) and can be quite lengthy. For example, the application for an LLW disposal facility license for California was 11,000 pages long. The Nebraska application for an aboveground LLW disposal facility was 25,000 pages long. The application is reviewed for completeness using a "reading/screening" process by the technical experts who will later participate in the detailed review. If it is determined that any part of the application is incomplete or unacceptable for docketing, the applicant is informed and provided with a list of deficient areas requiring additional information.

4. The accepted application is docketed and suitable public notification is made by the regulator. Copies of the application are submitted to appropriate State and local officials, including those from the municipality that will host the LLW disposal facility and those from the identified alternate sites. Interested members of the public are also invited to participate.

5. The regulator begins review in order to prepare a suitable Safety Evaluation Report (SER) and Environmental Impact Statement (EIS). Approximately 70 findings (listed in NUREG-1200) must be made for the safety review and a similar number of findings must be made for the environmental review. A relatively large staff of reviewers covering the required technical and financial disciplines is required. For example, Nebraska has 100 reviewers.

6. The regulator and other affected parties participating in the review process continue their review and develop questions (interrogatories) for the licensee to answer. Typically, there are at least two rounds of questions. For example, California had four rounds of review before being issued an LLW disposal facility license. Nebraska has had a total of 1,411 questions generated in three rounds of review. Illinois' first two rounds of review of the application for an LLW disposal facility in Martinsville resulted in 1,648 interrogatories and an additional 311 comments. All work on this application ceased after a special commission disapproved the Martinsville site. Thus, it is likely that any given application can engender thousands of questions that come from the regulator, members of the public, and various advisory boards, other affected municipalities, as well as other Federal and State agencies. Thus, the ability to track interrogatories becomes critical in ensuring that the review process is complete and all questions have been satisfactorily addressed.

7. At least one formal hearing is usually held in which the regulator presents the draft SER and draft EIS conclusions. To date, California has had two formal hearings. Other interested parties that have a direct interest in the operation of the LLW disposal facility also participate. Additional questions (interrogatories) can also be developed in this part of the process. Again, it is important that these interrogatories are tracked to ensure completion of the review process.

8. The regulator, based on its review of the application and responses to interrogatories, makes its recommendation for license approval or disapproval. Additional license conditions may result from the responses to the interrogatories. Thus, the ability to correlate license conditions as answering specific interrogatories ensures that questions have been satisfactorily addressed as part of the license review process.

9. Assuming that the application is approved, the LLW disposal facility license is issued. Construction and operation phases of the facility begin with suitable regulator oversight to ensure compliance with the license.

10. After a license is issued, it can be subject to court challenges or other administrative difficulties that may generate further review and questions to answer. For example, for the California LLW disposal facility, there are questions concerning transfer of land ownership from the Federal government that has held up construction and operation of the disposal facility after the license was issued in September 1993. In addition, there is also litigation concerning the Environmental Impact Report.

2.3 How an Appropriate Tracking System Can Help the Process

Enhanced ability to track, sort, classify, and cross reference can provide significant benefits to the overall LLW disposal facility licensing process. These include:

- It gives the State regulator capability to ensure that all interrogatories for a given license application have been addressed with minimal outside assistance

- It can expedite the review and thereby minimize public resources required

- It simplifies the process for ensuring that all commitments to perform certain actions during the construction, operation, and closure phases are appropriately incorporated as license conditions

- It simplifies the administration of the review process and can improve regulators' knowledge of the "big picture" at any given point in the review process

- It can allow ready retrieval of information by topical area, review step, or discipline

- It can minimize research time required to provide relevant information to members of the public and other interested parties

- It can facilitate preparation for any court challenges.

3. PAST EXPERIENCE

In this section of the report, the experience of tracking interrogatories in reviewing and evaluating LLW disposal facility license applications are described. In particular, the experiences of Nebraska, Illinois, and California are described since these Agreement States currently have the most experience in the LLW license review process. Other host States' experiences are also discussed.

3.1 Nebraska's Experience

As of March 1994, there have been three rounds of questions on the Nebraska license application. A total of 1,436 questions have been generated - 283 interrogatories relating to the Environmental Report (ER), 1,085 questions relating to the Safety Analysis Report (SAR) and 68 questions generated by the public. Nebraska developed a tracking system using an IBM 3090 mainframe system using VMS/SQL programming language that is further described in Section 4 below. This system is online interactive and provides batch reports. The focus has been to track the closure of questions. In addition, the contracted license reviewers maintain their own internal tracking systems. To date, only limited searching and sorting has been performed based on comment number, status, and schedule. The comment field is limited, thus it restricts the ability to search and sort based on key word or topical area. To date, the ability to correlate responses to corresponding license conditions has not been addressed.

3.2 California's Experience

Over 1,000 interrogatories were generated (about 6,000 pages) in four rounds of review from an initial license application of about 11,000 pages. The initial license application was deemed complete for review in December 1989. A license was issued for an LLW disposal facility in September 1993. There is currently litigation concerning the Environmental Impact Report and questions concerning transfer of land ownership from the Federal government that has held up construction and operation.

The State of California does not have an interrogatory tracking system. The lead review contractor was responsible for tracking the interrogatories and their status. This information was provided to the State in paper form following completion of the review. The commitment listing, organized by license section, cross-references interrogatory responses to license conditions and the commitments list. Manual correlation of interrogatories with the original application and the license must be performed to answer questions resulting from the litigation.

3.3 Illinois' Experience

Illinois was over halfway through the process of reviewing a license application for an LLW disposal facility at the Martinsville site when a special commission disapproved this site. Thus, all license application review activities ceased. Currently, the Illinois LLW Task Group is developing suitable site criteria. It will be several years before a new license application is submitted.

Up to the time when the site was disapproved, 1,959 reviewer questions and comments were generated in the first two rounds of review. Interrogatories were separated and tracked by the originator. Originators were from the State regulatory staff or any of the three review contractors. Each contractor company that was hired to review assigned portions of the license application performed tracking of the interrogatories generated by its own organization. The State regulatory staff uses word processing to list its interrogatories and associated review status information.

In addition to the LLW disposal facility, Illinois has 800 licensees for which there can be similar interrogatories and responses requiring tracking. For example, a separate tracking system was developed for the West Chicago Rare Earths Facility Reclamation license application. Since this system is used to track an application that is similar to an LLW license application, it is further discussed in Section 4 below.

3.4 North Carolina's Experience

As of March 1994, North Carolina is beginning its detailed review of the 7,700 page license application that was submitted in December 1993. A site for an LLW disposal facility was selected in December 1993. State reviewers recently completed training in preparation for the license review process. The first round of review generated 36 questions directed toward the conceptual geologic and hydrologic model for the selected site. In addition, an interrogatory tracking system is being developed using dBase III and is further described in Section 4.

3.5 Texas' Experience

Texas has generated three groups of questions with approximately 80% being related to the ER and 20% to the SAR. A site has been selected and the license application review process is expected to be completed by the end of 1994. In addition, Texas is awaiting approval of legislation to form a compact with Maine and Vermont. The interrogatory tracking system currently used by Texas is described in Section 4.

3.6 New York's Experience

New York is awaiting a legislative decision regarding the type of disposal facility to be developed (aboveground, belowground, deep mine, etc.) before beginning the license application process. The selection of a site will immediately follow the legislative decision. The necessary regulatory framework is in place to support the license application review process. A proposed LLW disposal facility operation date of 2001 is scheduled.

3.7 Pennsylvania's Experience

Pennsylvania is in the process of selecting a site to construct an LLW disposal facility. To date, no potential sites have been identified. A license application is not expected to be reviewed until 1997.

3.8 Ohio's Experience

Ohio is awaiting passage of enabling legislation before beginning the site selection and license application review process.

3.9 New Jersey's Experience

New Jersey is in the process of selecting a site to construct an LLW disposal facility. To date no potential sites have been identified.

3.10 Connecticut's Experience

Connecticut is in the process of selecting a site to construct an LLW disposal facility. After a site is identified, review of the license application will begin. The proposed LLW disposal facility operation date is the year 2000.

3.11 State Agency Contacts Made

Table 1 lists the State agencies contacted, including the applicable compact region (if applicable) and department responsible for licensing LLW disposal facilities. States affiliated with an approved compact appear at the top of the table followed by unaffiliated States planning to host a disposal site and unaffiliated States not planning to host a disposal site. The only States not contacted were Alaska, Hawaii, Idaho and Tennessee. Currently Texas, Vermont, and Maine are attempting to form a compact, with Texas as the host State. The Northeast compact region has dual hosts with each State (Connecticut and New Jersey) agreeing to store and dispose of its own LLW. The Rocky Mountain compact region will use the Richland, Washington site as its LLW disposal facility.

Table 1. State agencies contacted.

State/compact	Department
California/Southwestern (Host State)	Department of Health Services
North Dakota/Southwestern	Department of Health
South Dakota/Southwestern	Department of Environmental and Natural Resources
Arizona/Southwestern	Radiation Regulatory Agency
Washington/Northwest (Host State)	Department of Health
Oregon/Northwest	Department of Energy
Montana/Northwest	Occupational Rad Health Group
Wyoming/Northwest	Emergency Management Department
Utah/Northwest	Department of Environmental Quality
Nevada/Rocky Mountain	State Office Radiological Health
Colorado/Rocky Mountain	Department of Health
New Mexico/Rocky Mountain	Radioactive Materials Licensing Section
Ohio/Midwest (Host State)	State Health Department
Minnesota/Midwest	Pollution Control Agency
Wisconsin/Midwest	Hazardous Waste Department
Iowa/Midwest	Department of Natural Resources
Missouri/Midwest	Department of Natural Resources
Nebraska/Central (Host State)	Department of Environmental Quality
Kansas/Central	Bureau of Air and Radiation
Oklahoma/Central	Department of Commerce
Arkansas/Central	Radiation Control and Emergency Management Program
Louisiana/Central	Radiation Department
Illinois/Central Midwest (Host State)	Illinois Department of Nuclear Safety

Table 1. (continued).

State/compact	Department
Kentucky/Central Midwest	Department for Health Services
North Carolina/Southeast (Host State)	Division of Radiation Protection
South Carolina/Southeast (Current Host State)	Division of Radioactive Waste
Virginia/Southeast	Department of Environmental Quality
Georgia/Southeast	Department of Natural Resources
Florida/Southeast	Office of Radiation Control
Alabama/Southeast	Division of Radiation Control
Mississippi/Southeast	Department of Radiological Health
Pennsylvania/Appalachian (Host State)	Department of Environmental Resources
Maryland/Appalachian	Environmental Protection Department
West Virginia/Appalachian	Department of Commerce
Delaware/Appalachian	Hazardous Waste Branch
Connecticut/Northeast (Host State)	Radiation Monitoring Unit
New Jersey/Northeast (Host State)	LLW Siting Board
Texas (Host State)	LLW Disposal Authority
Vermont	Agency of Natural Resources
Maine	LLW Authority
New York (Unaffiliated Host State)	Department of Environmental Conservation
Massachusetts (Unaffiliated Host State)	LLW Management Board
Michigan (Unaffiliated State)	Department of Commerce
New Hampshire (Unaffiliated State)	Bureau of Radiological Health
Rhode Island (Unaffiliated State)	Office of Environmental Coordination

4. ALTERNATIVE COMMITMENT TRACKING SYSTEMS

4.1 Current Tracking Systems Used By States

Currently, only Texas and Nebraska have an automated system for tracking interrogatories concerning their LLW disposal facility license applications. In addition, North Carolina is developing an interrogatory tracking system using dBase III that is further described below. The Texas LLW Disposal Authority License Application Suspense Item Tracking Log is a word processor-based program using Microsoft Word. The Texas system uses an item number to identify each subject/topic area and includes the government and contractor personnel responsible for resolution of the subject/topic area, the date the specific action was initiated and resolved, and the current status of each subject/topic area (open or closed).

Word processor-based programs provide readily readable paper output. However, the ability to search and correlate large numbers of interrogatories would be limited. Specifically, the drawbacks of adopting a word-processor based tracking system include the inability to correlate, search, and manipulate data, the inability to generate and tailor reports, increased possibility of keystroking errors when entering repetitive data, and the inability to effectively track the quantity of information involved in completing the license application.

Nebraska developed its LLW Technical Comment Tracking System using its IBM 3090 mainframe. The system uses VMS/SQL software. The Nebraska system contains data fields that are essential to any tracking system such as comment number (assigned by review manager), date received, comment field (a brief description of the comment), target date for completion, completion date, review status (open or closed), and microfilm locator for final storage. Additional data fields include identification number, subject, reference document (based on the Standard Review Plan), application document (actual section of the applicant's document and page), action type (possible entries include A-answer received, C-consulting firm review, and R-reviewed), action description, date scheduled, date achieved, and document number.

Drawbacks of the Nebraska system include high capital cost and the reduced ability to search and sort for specific key words or phrases because of the limited size of the comment field. In addition, mainframe systems rely on the expertise of a single administrator who is trained in the use of computers and databases, thus requiring the user to be more knowledgeable of the system operation than the application program itself.

As stated in Section 3 above, Illinois developed a tracking system for the West Chicago Rare Earths Facility Reclamation license application. This tracking system was developed using WordPerfect 5.2. This tracking system assigns a comment number to each interrogatory and follow-up interrogatories, references the applicable State regulation, and contains the specific interrogatory, a discipline code used to indicate the specific professional or technical discipline responsible for resolving the interrogatory, and a code to identify the interrogatory originator.

The tracking system used by Illinois for its West Chicago Rare Earths Facility Reclamation license application may not display enough pertinent information that would make it fully useful for an LLW license application. Currently, Illinois is revising this system to a database format to expand its report-generating capabilities.

North Carolina is developing its Interrogatory Tracking System on a PC using dBase III. The following fields are planned: Section Number, Round Identifier, Interrogatory Number, Subject, Finding, Date Sent, Response Date, Date Closed, Author First Name, Author Last Name, Related Document Review Records (DRRs), Related Interrogatories, and Comments. Field sizes range from one to 75 characters.

4.2 Industry Tracking Systems

Because of similarities in the overall regulatory structure between LLW disposal facilities and commercial nuclear utilities, a review of identification and tracking systems used by commercial nuclear utilities was made. Typically, thousands of commitments must be tracked that come from various sources, and which require various levels of response, review, and acceptance. Thus, commercial nuclear utility tracking systems should have many, if not all, of the required system functions and a similar amount of information that must be tracked.

Five commercial nuclear utility tracking systems were selected as representative. Tracking systems for R.E. Ginna, Davis-Besse, Monticello, Arkansas Nuclear One, and Calvert Cliffs were reviewed. One system is run on an IBM 3090 mainframe, which is also the case for the current interrogatory tracking used by Nebraska. These systems all contain the basic information required of a quality tracking system. Attributes from each of the systems were considered for inclusion in the model tracking system. In addition, these systems were developed from commercially available software. Most are PC-based and therefore have minimum capital cost associated with them.

In addition to the commercial nuclear utility systems, the U.S. Marine Corps contract deliverables tracking system was also reviewed. It shares many of the desired characteristics of the commercial utility tracking systems listed above.

Rochester Gas and Electric developed its Commitment and Action Tracking System (CATS) for use at R.E. Ginna nuclear plant to provide a high degree of confidence that commitments and action items are being implemented. CATS is run on an IBM PC using dBase IV. At one point, the system was operated briefly on a VAX minicomputer using Oracle software. CATS allows the user to add, update, delete, or retrieve information such as commitment type, commitment summary, scheduled due dates, related documents, implementing/closure documents, etc. CATS contains functions such as word search, global search and replace, and copy/transfer and menus for basic information, system maintenance, security, and reports.

Toledo Edison developed its Toledo Edison Regulatory Management System (TERMS) to store, control, and access commitment information for the Davis-Besse nuclear plant. TERMS is run on a IBM 3090 mainframe using a PacBase generated Cobol program. TERMS database contains about 16,000 regulatory commitments comprising 11 years of regulatory correspondence to and from the utility. The database allows the user to add, update, delete, or retrieve information such as commitment type, commitment summary, scheduled due dates, related documents, closure documents,

etc. TERMS also contains a word search capability that allows the user to search through the commitment text, summary, and comment fields for a specific word or phrase.

Northern States Power developed its Follow-On Activities List (FOAL) for its Monticello nuclear plant to record the status of recommended life cycle management activities. FOAL is run on an IBM PC compatible computer using R:base version 2.11. The activities in FOAL were based primarily on life cycle evaluations for most major plant components and structures. The database contains a brief description of the activity, including the source document and reference documents, the activity category (engineering, maintenance, testing, R&D, etc.), the group responsible for implementation, the activity schedule, the estimated activity costs, and whether the activity could be performed during plant operation. Activity descriptions were revised, new activities were added, and activities deleted based on updated technical evaluations or results of field inspections, tests, and maintenance findings. The database tracks the official review and approval of the recommended activities and the implementation status on a continuous basis. The FOAL database does not contain an inherent search capability. Thus, searches must be performed by personnel proficient in the use of R:base and knowledgeable of the content of the database.

Entergy purchased the Licensing Research System (LRS) for use at Arkansas Nuclear One. LRS uses FoxPro and is designed for Windows applications on IBM PC compatible computers. LRS is used to track commitments, store inspection information, procedure tracking data, technical specification information, and Licensee Event Reports. Attributes of the LRS include lookup tables that contain repetitive information that reduce errors and improve entry speed; onscreen help to assist the user in entering data; a utility menu that allows the user to set up the program; and various reports containing different types of information.

Baltimore Gas and Electric Company procured its Regulatory Commitment Management Project (RCMP) database to record, track, and classify docketed regulatory correspondence docketed at its Calvert Cliffs nuclear plant. The RCMP was developed using IBM PC compatible computers using R:base 3.1 software. The RCMP database contains data files that contain information from approximately 15,000 documents. The RCMP database contains system, component, design, and key word information and commitment data such as type, status, summary, verbatim text, keyword, reference documents, and closure/implementing documentation. Data entry into the RCMP database was significantly enhanced by the inclusion of lookup tables that contained systems, components, and key words. This was done to greatly reduce data entry keystroke errors. Currently, the RCMP database information is in an interim stage on an IBM PC computer prior to uploading into the mainframe system for site-wide access and enhanced search capability. The RCMP database does not contain an inherent search capability, thus searches must be performed by a small number of licensing personnel skilled in the use of R:base and knowledgeable of the content of the database.

The U.S. Marine Corps uses the Marine Corps Acquisition Deliverables Management System (MCADMS) to aid in the tracking and control of contract deliverable requirements for various system/equipment acquisitions. MCADMS uses dBase III Plus on IBM-PC compatible computers. MCADMS allows the user to choose a Marine Corps project currently in the program or add a new project, add, update, or delete information, and provides various report options designed to display various types of information. Data fields include deliverable number, deliverable title, data item description number (specific reference used to develop the deliverable), type of deliverable (i.e., one-time, monthly, annually), responsible government reviewer, contract award date, days after contract

(number of days after contract award the deliverable is due), due date (draft and final), received date (draft and final), and completion date (final).

5. MODEL COMMITMENT TRACKING SYSTEM

5.1 Generic System Requirements

Generic system requirements primarily define user interface requirements, configuration control, response time, output standards, and backup capabilities. The following generic system requirements are proposed for the model tracking system:

1. System response time of five seconds or less from screen to screen. In a screen, not more than two seconds 75% of the time and not more than five seconds 100% of the time.

2. System availability goal of 24 hours/day, seven days/week except for normal system maintenance and database backup periods.

3. Nightly system backup to minimize lost input data to one day.

4. Version numbers appear on each screen and updated each time a program is changed.

5. Access to system provided in not more than one minute.

6. Screen size for the model system of 25 rows and 80 columns.

7. Errors are reported as they occur and displayed on the screen.

8. Real time for database maintenance and reporting.

9. System to work equally well on monochrome or color monitors. Colors should be standardized.

10. Screen print capability to the assigned file, or the capability to print a file by typing the name of the file at a user prompt.

11. "Wildcard" capabilities for report requests and assumed wildcards for appropriate fields.

12. Report sort orders can be varied.

13. All hard-copy reports are provided on 8-1/2" by 11" paper. If compression or landscape orientation control characters are required, they will be supplied from the application.

14. For DOS operating environment, up, down, left, and right arrow keys move cursor one character in appropriate direction, within scrollable fields.

5.2 Hardware

A tracking system of this nature requires high processing speed and significant storage in order to be useful. A 486 IBM-PC or clone, with a minimum of 40 megabytes (MB) of hard disk space and a backup system (for example, a Bernoulli system), will meet the hardware-related generic system requirements and the requirements in the Kepner-Tregoe analysis (see Section 6).

5.3 Software

Either a Windows-based application or a DOS application can be used. Windows applications typically are simpler for an inexperienced user to learn because of their "point-and-click" checklist approach to filling in screens and because of other system features, such as popup reference screens and pull-down menus. However, a DOS application could also be developed. One database management program that is available for both Windows and DOS is FoxPro. In addition, an indexing system such as ZyIndex is required to enable the user to access and search scanned text of complete documents.

5.4 Model System Description

Sample screens and field descriptions appear below. For illustrative purposes, we have assumed that the user has access to all data functions. (For users who may only search/view/print, most fields are display only.) We have further assumed that the screen is mono-spaced, 80 columns by 25 lines (i.e., a DOS application screen, rather than a Windows screen).

The information below incorporates appropriate system requirements as they can be presently determined. Time and resource constraints not yet defined that may apply during the development phase of the model tracking system may result in the need to modify the information below. Such changes, can be due to validation results, unanticipated system configuration limitations, or assessment of development impact versus incremental value to user.

Menu screens permit the user to make a selection in either of two ways, depending on whether the system is on a DOS or Windows platform. Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

"Enter", as used here as a verb, means to type in the required information and press the ENTER key on the keyboard. This means that a menu selection is not complete (under DOS) until you press the ENTER key. For example, if you want to make a menu selection and you press the first letter of one of the menu items, but then change your mind, you will not have to back out of a subsequent screen to change your menu selection. The same holds true for process selections, such as "Enter another activity? (Yes/No)". If you press "Y" without pressing ENTER, you will not be carried forward to a new screen.

Many screens have pull-down menus across the top. As with the table-type menus, you may make selections by mouse-click or by entering the first letter of the menu selection. Selections from these pull-down menus include add, edit, delete, view, and print. The user must have the appropriate security designation in order to be able to add, edit, or delete, but all users may view and print. View, as used in these menus, enables the user to see the entire source document for a given commitment, if that document has been scanned into the system. The user presses PG-UP/PG-DN to move within the scanned document. To return to the original screen, the user simply presses ESC.

Fields descriptions use the following format:

Field Label: Field identifier used on the screen, not necessarily the name used to identify the field within the database itself

Field Name: The name used to identify the field in the database file (not seen by the casual user)

Description: Briefly describes the contents of the field

Characters: Number of spaces made available on-screen to enter data into the field

Type: Numeric or Alphanumeric

Validation: If yes, the program will verify the correctness of a given entry

Required?: If yes, the user must complete this field before he can access another screen

Example: An example of a correct entry in the field.

The question mark in the upper left portion of the screen is a button for help.

The number in the upper right corner of each screen is the screen number. This number is also used in menus and should be referenced in the final documentation as well.

In the example screens, there are several letters used to define the field length and accessibility of that particular field to the user. The field length coincides with the number of letters displayed. The meaning of the letters themselves is as follows:

D Information is display-only.

E Information may be entered for that field from that screen.

T Information is drawn from a pop-up table; <TABLE> selection in Data Dictionary.

V Information is verified against existing data to ensure against either inappropriate duplication or unacceptable entries; prompts for new entries to data table; <DATA> validation in Data Dictionary.

<TABLE> selections are made from tables of predefined terms that are modifiable only through the Maintenance Menu (4.0)

<DATA> validation is against entries in the active database. The user is given the option to use the suggested term or to enter a new term, as appropriate. For example, when entering a new commitment, the system would check the commitment number entered by the user to ensure that it is not a duplication of an existing number. If it were a duplicate, the user would be notified of this fact and be given the opportunity to correct the entry. On the other hand, if the user were entering a source document, the system would verify the publication number and, if a duplication of the number were found, the user would have the option to copy the title and other identifying data from the existing entry, rather than having to re-enter the information.

Figure 1 illustrates the menu structure for the model tracking system.

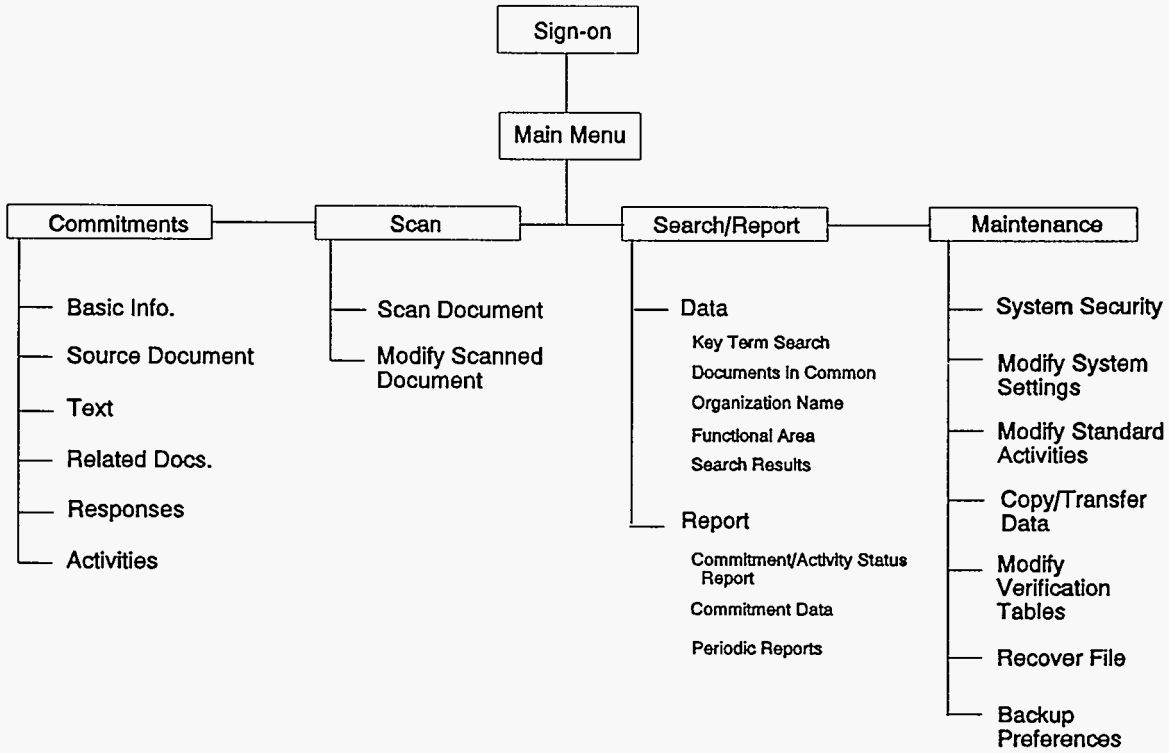

Figure 1. Menu structure for model tracking system.

Screen 0.0: Sign-on

The first screen the user will encounter is the sign-on screen. This is the point at which the user identifies him/herself to the system as an authorized user, based on the name and password entered. (System authorization is assigned in Screen 4.1, Individual Security Settings.)

```
?|                DDDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE                0.0
                     COMMITMENT TRACKING SYSTEM (VERSION 1.0)

                                  SIGN-ON


     PLEASE ENTER YOUR NAME: EEEEEEEEEEEEEEEE  AND PASSWORD: EEEE
```

If the user enters a correct name/password combination, screen 0.1 will be displayed. If the user enters an incorrect name or password, the system will prompt for re-entry for up to three attempts, using screen 0.0A:

```
?|                DDDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE               0.0A
                     COMMITMENT TRACKING SYSTEM (VERSION 1.0)

                                  SIGN-ON


          INVALID NAME OR PASSWORD. PLEASE RE-ENTER.

     PLEASE ENTER YOUR NAME: EEEEEEEEEEEEEEEE  AND PASSWORD: EEEE
```

If the user fails three times to enter a correct name/password combination, the system will lock up, denying access and requiring the attention of an administrator to clear the screen and unlock the system.

5.4.1 Add/Edit/View Subsystem

Screen 0.1: Main Menu

The main menu allows the user to select the action to be performed. Each of these actions is discussed below in the order shown above. The State name appears in the title of each screen as a result of setup procedures followed the first time the system is used by the State (see Screen 4.2).

```
?|          DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE                0.1
            COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                MAIN MENU

                COMMITMENTS

                SCAN

                SEARCH/REPORT

                MAINTENANCE

                QUIT
```

Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

Screen 1.0: Commitments Menu

The Commitments Menu enables the user to select a specific portion of the commitments database to manipulate. The user makes this selection by entering the underlined letter in the appropriate screen name. For a new entry, the user would select Basic Information, and the system would present each of the subsequent screens for entry of new information.

```
?|          DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE                1.0
            COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                            COMMITMENTS MENU

            BASIC INFORMATION
                COMMITMENT TYPE: VV NUMBER: EEEEEEEEEEE

            SOURCE DOCUMENT

            TEXT

            RELATED DOCS

            RESPONSES

            ACTIVITIES
```

Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

If the user selects Basic Information, the system will prompt for a commitment type and number. If the commitment already exists, the system will then display appropriate screens for that commitment. If the number does not appear in the existing database, the system will display blank screens and permit the user to make entries (assuming the user has add/edit/delete authority).

The following are entry fields for this screen:

1. Field Label: Commit Type
   Field Name: CTYPE
   Description: Category of the commitment
   Characters: 2
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "IR" (for interrogatory) "RG" (for regulation)

2. Field Label: Number
   Field Name: CNUMBER
   Description: Number used to uniquely identify each commitment
   Characters: 10
   Type: Alphanumeric
   Validation: <DATA> validation to ensure that commitment number is not duplicated and that the general format conforms to that defined in the setup screen
   Required?: Yes
   Example: "E-00001-01"

Screen 1.1: Basic Information

The Basic Information screen allows the user to add, edit, view, print, or delete general identifying data for a specific commitment. If the commitment is new, the system will automatically proceed to each of the other screens without returning to the Commitments Menu.

```
?|   ADD    EDIT    DELETE    VIEW    PRINT                                    1.1

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                        COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                  BASIC INFORMATION
COMMIT TYPE: TT NUMBER: VVVVVVVVVV STATUS: TTTTTTTT ENTRY DATE: DD/DD/DDDD

ABSTRACT:      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
               EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
               EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

KEY TERMS:     TTTTTTTTTTTTTTTTTTTT        TTTTTTTTTTTTTTTTTTTT
               TTTTTTTTTTTTTTTTTTTT        TTTTTTTTTTTTTTTTTTTT
               TTTTTTTTTTTTTTTTTTTT        TTTTTTTTTTTTTTTTTTTT

FUNCTIONAL AREA: EEEEEEEEEEEEEEEEEEEEE

ORIGINATING ORG: VVVVVVVVVVVVVVVV   ORIGINATING NAME: EEEEEEEEEEEEEEEE
RESPONDING ORG: VVVVVVVVVVVVVVVV    RESPONDING NAME: EEEEEEEEEEEEEEEE

DUE DATE: EE/EE/EEEE   COMPLETED: EE/EE/EEEE   AGENCY CLOSED: EE/EE/EEEE

LAST UPDATE: DD/DD/DDDD   UPDATED BY: DDDDDDDDDDDDDDD

RELATED COMMITMENTS: EE-EEEEEEEEEE EE-EEEEEEEEEE EE-EEEEEEEEEE EE-EEEEEEEEEE
```

The following are entry fields for this screen:

1. Field Label: Commit Type
   Field Name: CTYPE
   Description: Category of the commitment
   Characters: 2
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "IR" (for interrogatory) "RG" (for regulation)

2. Field Label: Number
   Field Name: CNUMBER
   Description: Number used to uniquely identify each commitment
   Characters: 10
   Type: Alphanumeric
   Validation: <DATA> validation to ensure that commitment number is not duplicated and that the general format conforms to that defined in the setup screen
   Required?: Yes
   Example: "E-00001-01"

3. Field Label: Status
   Field Name: CSTATUS
   Description: Completion stage of commitment
   Characters: 8
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "OPEN"

4. Field Label: Entry Date
   Field Name: CENTRY
   Description: Date commitment is entered in system
   Characters: 10
   Type: Numeric date (MM/DD/CC/YY)
   Validation: None. System generated for each new commitment after the user presses the ENTER key.
   Required?: Display only.
   Example: "03/07/1994"

5. Field Label: Abstract
   Field Name: CABSTRACT
   Description: Brief description of commitment
   Characters: 210
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Identify which procedures control purchased material, equipment, and services"

6. Field Label: Key Terms
   Field Name: CKEY1, CKEY2, CKEY3, CKEY4, CKEY5, CKEY6
   Description: Specific subject words or phrases used to describe interrogatories
   Characters: 20 (6 possible entries)
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes. Minimum entry is "None" in the first field
   Example: "Environmental Impact"

7. Field Label: Functional Area
   Field Name: CAREA
   Description: Specific discipline responsible for resolving the commitment, (electrical, civil, mechanical, environmental, geology, etc.)
   Characters: 20
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Environmental"

8. Field Label: Originating Org
   Field Name: COORG
   Description: Organization initiating the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "US EPA"

9. Field Label: Originating Name
   Field Name: CONAME
   Description: Name of primary contact within the organization initiating the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: Last Name space Initial, "Harmon D"

10. Field Label: Responding Org
    Field Name: CRORG
    Description: Organization responsible for resolution of commitment
    Characters: 15
    Type: Alphanumeric
    Validation: <TABLE> selection
    Required?: Yes
    Example: "US Ecology"

11. Field Label: Responding Name
    Field Name: CRNAME
    Description: Name of primary contact within the organization responsible for resolution of commitment
    Characters: 15
    Type: Alphanumeric
    Validation: None
    Required?: Yes
    Example: Last Name space Initial, "Harmon D"

12. Field Label: Due Date
    Field Name: CDUE
    Description: Required completion date of commitment
    Characters: 10
    Type: Numeric date (MM/DD/CCYY)
    Validation: Operating system validated date
    Required?: No
    Example: "03/07/1994"

13. Field Label: Completed
Field Name: CCOMP
Description: Date the commitment is resolved
Characters: 10
Type: Numeric date (MM/DD/CCYY)
Validation: Operating system validated date
Required?: Yes, if status is historical
Example: "03/07/1994"

14. Field Label: Agency closed
Field Name: CCLOSED
Description: Date when applicable regulatory agency closed the commitment
Characters: 10
Type: Numeric date (MM/DD/CCYY)
Validation: Operating system validated date
Required?: Yes, if status is historical
Example: "03/07/1994"

15. Field Label: Last Update
Field Name: CUPDT
Description: System generated date when the commitment is updated
Characters: 10
Type: Numeric date (MM/DD/CCYY)
Validation: None. System generated whenever a change is made in any screen directly relating to the commitment.
Required?: Display only.
Example: "03/07/1994"

16. Field Label: Updated By
Field Name: CUPDTBY
Description: Individual updating the commitment
Characters: 15
Type: Alphanumeric
Validation: None
Required?: Only following a change to data. The information is carried forward from the sign-on screen
Example: Last Name space Initial, "Harmon D"

17. Field Label: Related Commitments
Field Name: CRELCOMM
Description: Concatenated field of up to 4 commitments related to this commitment (listed by number)
Characters: 52
Type: Alphanumeric
Validation: <DATA> validated
Required?: No
Example: "E-00001-01"

Screen 1.2: Source Document

The Source Document screen contains the information that specifically identifies the document that contains the commitment and the exact location of the commitment within the source document.

```
?¦   ADD   EDIT   DELETE   VIEW   PRINT                                    1.2

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                        COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                   SOURCE DOCUMENT
COMMIT TYPE: DD NUMBER: DDDDDDDDDD STATUS: DDDDDDDD ENTRY DATE: DD/DD/DDDD

PUBLICATION #: VVVVVVVVVVVVVVV DOCUMENT TYPE: EEEEEEEEEEEEEEE

TITLE: EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

REV/SUPP #: EEE DATE: EE/EE/EEEE SEC: EEEEEEEEEEEEEEE  PG: EEEEEEEEEEEEEEE

AUTHOR NAME: EEEEEEEEEEEEEEEE    AUTHOR ORG: EEEEEEEEEEEEEEEE

RECIPIENT NAME: EEEEEEEEEEEEEEEE  RECIP. ORG: EEEEEEEEEEEEEEEE
```

The following fields are brought forward from the Basic Information screen as display-only fields:

Commitment Type	Commitment Status
Commitment Number	Commitment Entry Date

The following are the entry fields for this screen:

1. Field Label: Publication #
   Field Name: DPUBNO
   Description: Number used to uniquely identify the source document
   Characters: 15
   Type: Alphanumeric
   Validation: <DATA> validated. If the publication number is already in the database, relevant information will automatically be copied to this screen after the user indicates OK
   Required?: No
   Example: "NUREG-CR/5937"

2. Field Label: Document Type
   Field Name: DTYPE
   Description: Type of document containing the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "NUREG"

3. Field Label: Title
   Field Name: DTITLE
   Description: Title of document containing the commitment
   Characters: 70
   Type: Alphanumeric
   Validation: None. However, if the publication number matches a previous entry, this information will be filled in automatically if the user indicates OK
   Required?: Yes
   Example: "Code of Federal Regulations, Title 10"

4. Field Label: Rev/Supp #
   Field Name: DREVSUPP
   Description: Revision or supplement designation of source document
   Characters: 3
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "S6a"

5. Field Label: Date
   Field Name: DDATE
   Description: Date of source document
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/07/1994"

6. Field Label: Sec
   Field Name: DSECTION
   Description: Specific section of the document containing the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "II.1.(a).i"

7. Field Label: Pg
   Field Name: DPAGE
   Description: Number of the page within the source document where the commitment text begins
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "40-4.1"

8. Field Label: Author Name
   Field Name: DANAME
   Description: Author of source document
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: Last Name space Initial, "Harmon D"

9. Field Label: Author Org
   Field Name: DAORG
   Description: Organization/company/other affiliation of author of source document
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "US Ecology"

10. Field Label: Recipient Name
    Field Name: DRNAME
    Description: Recipient of source document
    Characters: 15
    Type: Alphanumeric
    Validation: None
    Required?: No
    Example: Last Name space Initial, "Harmon D"

11. Field Label: Recipient Org
    Field Name: DRORG
    Description: Organization/company/other affiliation of recipient of source document
    Characters: 15
    Type: Alphanumeric
    Validation: <TABLE> selection
    Required?: Yes
    Example: "INEL Library"

Screen 1.3: Commitment Text

The Commitment Text screen allows the user to add, edit, view, or delete commitment text.

```
?|   ADD    EDIT    DELETE    VIEW    PRINT                                    1.3

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                        COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                   COMMITMENT TEXT
COMMIT TYPE: DD NUMBER: DDDDDDDDDD STATUS: DDDDDDDD ENTRY DATE: DD/DD/DDDD
                                   SOURCE DOC
TITLE:DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
PUB #:DDDDDDDDDDDDDDDD      REV/SUPP#: DD   PAGE: DDDDDDDDD

COMMITMENT TEXT:

 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
```

The following fields are brought forward from previous screens as display-only fields:

Commitment Type	Source Document Title
Commitment Number	Source Document Number
Commitment Status	Source Document Rev
Commitment Entry Date	Source Document Page

The following are entry fields for this screen:

1. Field Label: Commitment Text
   Field Name: CTEXT
   Description: Verbatim text from source document
   Characters: (Large text field)
   Type: Alphanumeric
   Validation: None
   Required?: Minimum of one character required for ENTER
   Example: Provide additional information to clarify which agencies were involved in consultation

Screen 1.4: Related Documents

The Related Documents screen allows user to add, edit, view, or delete information that identifies documents used as references, acknowledge closure of the commitment, or demonstrate implementation of the resolution.

```
?|   ADD   EDIT   DELETE   VIEW   PRINT                                    1.4

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                RELATED DOCUMENTS
COMMIT TYPE: DD NUMBER: DDDDDDDDDD STATUS: DDDDDDDD ENTRY DATE: DD/DD/DDDD

PUB #: VVVVVVVVVVVVVVV  DOC TYPE: VVVVVVVVVVVVVVV  DOC CAT: TTTTTTTTTTTTTTT

TITLE:EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

REV/SUPP #: EE DATE: EE/EE/EEEE  SECTION: EEEEEEEEEEEEEEE  PAGE: EEEEEEEEE

AUTHOR NAME: EEEEEEEEEEEEEEE    AUTHOR ORG: EEEEEEEEEEEEEEE

RECIPIENT NAME: EEEEEEEEEEEEEEE  RECIP. ORG: EEEEEEEEEEEEEEE

ENTER ANOTHER DOCUMENT? E (Y or N)
```

The following fields are brought forward from the Basic Information screen as display-only fields:

Commitment Type	Commitment Status
Commitment Number	Commitment Entry Date

The following are the entry fields for this screen:

1. Field Label: Pub #
   Field Name: DPUBNO
   Description: Number together with other related document information which uniquely identifies the document
   Characters: 15
   Type: Alphanumeric
   Validation: <DATA> validated. If the publication number is already in the database, relevant information will automatically be copied to this screen after the user indicates OK
   Required?: No
   Example: "NUREG-1200"

2. Field Label: Doc Type
   Field Name: DTYPE
   Description: Type of document related to the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: NRC Report

3. Field Label: Doc Cat
   Field Name: DCAT
   Description: One of three possible categories into which this document falls, based on its relationship to the commitment.
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection (i.e., "Source", "Reference", "Closure")
   Required?: Yes
   Example: "CLOSURE"

4. Field Label: Title
   Field Name: DTITLE
   Description: Name of related document
   Characters: 254
   Type: Alphanumeric
   Validation: None. However, if the publication number matches a previous entry, this information will be filled in automatically if the user indicates OK
   Required?: Yes
   Example: "Code of Federal Regulations, Title 10"

5. Field Label: Rev/Supp #
   Field Name: DREVSUPP
   Description: Revision or supplement designation of document
   Characters: 3
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "S6A"

6. Field Label: Date
   Field Name: DDATE
   Description: Publication date of document
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/07/1994"

7. Field Label: Sec
   Field Name: DSECTION
   Description: Specific section of the document
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "10CFR61.3a"

8. Field Label: Pg
   Field Name: DPAGE
   Description: Page number of the document in which there is a reference to the commitment, its resolution, or its implementation.
   Characters: 10
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "40-4.1"

9. Field Label: Author Name
   Field Name: DANAME
   Description: Author of source document
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: Last Name space Initial, "Harmon D"

10. Field Label: Author Org
    Field Name: DAORG
    Description: Organization/company/other affiliation of author of source document
    Characters: 15
    Type: Alphanumeric
    Validation: <TABLE> selection
    Required?: Yes
    Example: "Off Fed Register"

11. Field Label: Recipient Name
    Field Name: DRNAME
    Description: Recipient of source document
    Characters: 15
    Type: Alphanumeric
    Validation: None
    Required?: No
    Example: Last Name space Initial, "Harmon D"

12. Field Label: Recipient Org
    Field Name: DRORG
    Description: Organization/company/other affiliation of recipient of source document
    Characters: 15
    Type: Alphanumeric
    Validation: <TABLE> selection
    Required?: No
    Example: "INEL Library"

Screen 1.5: Commitment Responses

The Commitment Responses screen allows the user to add, edit, view, or delete commitment-related responses.

```
?|   ADD   EDIT   DELETE   VIEW   PRINT                                    1.5

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                COMMITMENT RESPONSES
COMMIT TYPE: DD NUMBER: DDDDDDDDDD STATUS: DDDDDDDD ENTRY DATE: DD/DD/DDDD

SOURCE DATE: EE/EE/EEEE          SOURCE TYPE: EEEEEEEEEEEEEEE
AUTHOR NAME: EEEEEEEEEEEEEEE          AUTHOR ORG: EEEEEEEEEEEEEEE
RECIPIENT NAME: EEEEEEEEEEEEEEE RECIPIENT ORG: EEEEEEEEEEEEEEE

RESPONSE TEXT:

  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

ADD ANOTHER RESPONSE? E (Y or N)
```

The following fields are brought forward from the Basic Information screen as display-only fields:

Commitment Type	Commitment Status
Commitment Number	Commitment Entry Date

The following are the entry fields for this screen:

1. Field Label: Source Date
   Field Name: CCSDATE
   Description: Date of document containing response
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: No
   Example: "03/07/1994"

2. Field Label: Source Type
   Field Name: CCSTYPE
   Description: Type of document/source (e.g., letter, memo, phone call)
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "Letter"

3. Field Label: Author Name
   Field Name: CCSANAME
   Description: Name of author of responding document
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: Last Name space Initial, "Harmon D"

4. Field Label: Author Org
   Field Name: CCSAORG
   Description: Organization, company, or other affiliation of response author
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "INEL"

5. Field Label: Recipient Name
   Field Name: CCSRNAME
   Description: Name of the individual who received the response document
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: Last Name space Initial, "Harmon D"

6. Field Label: Recipient Org
   Field Name: CCSRORG
   Description: Organization, company, or other affiliation of response recipient
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No
   Example: "US Ecology"

7. Field Label: Response
   Field Name: CRESPONSE
   Description: Organizational response to the commitment
   Characters: (Large text field)
   Type: Alphanumeric
   Validation: None
   Required?: Minimum of one character required for ENTER
   Example: "Sampling and analysis procedure has been modified as follows: ..."

8. Field Label: Add another response?
   Description: Allows user to append additional comments to the same commitment
   Characters: 1
   Type: Alphanumeric
   Validation: Only "Y" or "N" are acceptable entries
   Required?: Entry
   Example: "Y"

Screen 1.6: Commitment Activities

The Commitment Activities screen allows the user to add, edit, view, or delete information regarding activities performed to resolve specific interrogatories.

```
?|   ADD    EDIT    DELETE    VIEW    PRINT                                    1.6

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                COMMITMENT ACTIVITIES
COMMIT TYPE: DD NUMBER: DDDDDDDDDD STATUS: DDDDDDDD ENTRY DATE: DD/DD/DDDD

ORIGINATING ORG: EEEEEEEEEEEEEEEEEEEE  RESPONDING ORG: EEEEEEEEEEEEEEEEEEEEE

SEQUENCE #: EEEE
ACTIVITY TYPE: EEEEEEEEEEEEEEEEEEEEE
ACTIVITY DESCRIPTION:
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
STATUS: EEEEEEEE
STATUS DESCRIPTION:
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

START DATE: EE/EE/EEEE   DUE DATE: EE/EE/EEEE   COMPLETED: EE/EE/EEEE

ENTER OR REVIEW ANOTHER ACTIVITY? E (Y or N)
```

The following fields are brought forward from the Basic Information screen as display-only fields:

Commitment Type	Commitment Status
Commitment Number	Commitment Entry Date

The following are the entry fields for this screen:

1. Field Label: Originating Org
   Field Name: CAOORG
   Description: Organization that initiated the activity
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "INEL"

2. Field Label: Responding Org
   Field Name: CARORG
   Description: Organization, company, or other affiliation of comment recipient
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No
   Example: "Chem Nuclear"

3. Field Label: Sequence #
   Field Name: CASEQUENCE
   Description: Identifier used for sequencing
   Characters: 4
   Type: Alphanumeric
   Validation: Display only
   Required?: Yes
   Example: "B122"

4. Field Label: Activity Type
   Field Name: CATYPE
   Description: Summation of the requested action
   Characters: 20
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Verification"

5. Field Label: Activity Description
   Field Name: CADESCR
   Description: Brief description of the actions taken/requested by the activity
   Characters: 254
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "Re-review site selection criteria for completeness"

6. Field Label: Status
   Field Name: CASTATUS
   Description: One-word description of the status of the activity.
   Characters: 8
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No
   Example: "Open", "Pending" or "Closed" are the only acceptable entries.

7. Field Label: Status Description
   Field Name: CASTATDES
   Description: Brief description of the status of the activity.
   Characters: 70
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "Inquiry sent 03/01/94. Awaiting response from NRC"

8. Field Label: Start Date
   Field Name: CASTART
   Description: Date the activity was started
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/07/1994"

9. Field Label: Due Date
   Field Name: CADUE
   Description: Date the activity is due to be completed
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/07/1994"

10. Field Label: Completed
    Field Name: CACOMP
    Description: Date the activity is resolved
    Characters: 10
    Type: Numeric date (MM/DD/CCYY)
    Validation: Operating system validated date
    Required?: Yes
    Example: "03/07/1994"

11. Field Label: Enter or review another activity?
    Description: Allows user to append additional activities to the same commitment
    Characters: 1
    Type: Alphanumeric
    Validation: Only "Y" or "N" are acceptable entries
    Required?: Entry
    Example: "Y"

Screen 2.0: Scan Menu

The Scan Menu permits the user to scan documents into the path specified in the system setup (screen 0.0), to make any necessary modifications to the document, and to attach the scanned document to a commitment.

Scan Document activates the user's scanning software and varies with the equipment used.

Modify Document activates an editor from which the user may perform spelling checks to correct any scan errors. In addition, the user may elect to cut text blocks containing specific commitments and save those to separate files, then attach those smaller files to the commitment record within the database.

```
?|        DDDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE        2.0
          COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                              SCAN MENU

    SCAN DOCUMENT

    MODIFY SCANNED DOCUMENT
```

If a source document is scanned into the system, the user can view the document from any of the screens with a menu bar across the top by selecting VIEW from the menu.

5.4.2 Display and Reporting Subsystem

Screen 3.0: Search/Report Menu

The Search/Report menu enables the user to organize data in the database into a useful form and to display or print the results of searches or report development. Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

Each of the items in the menu is discussed separately below, in order of their appearance on the menu.

```
?|                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE                    3.0
                      COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                  SEARCH/REPORT MENU

      DATA SEARCHES
        KEY TERM SEARCH                                                              3.1
        DOCUMENTS IN COMMON                                                          3.2
        ORGANIZATION NAME                                                            3.3
        FUNCTIONAL AREA                                                              3.4
        SEARCH RESULTS                                                               3.5

      REPORTS
        COMMITMENT/ACTIVITY STATUS REPORT                                            3.6
        COMMITMENT DATA                                                              3.7
        PERIODIC REPORTS                                                             3.8
```

Screen 3.1: Key Term Search

The Key Term Search screen permits the user to capture all commitments that contain the desired key term. The search can be restricted to only the key term fields, or expanded to include large text fields, abstracts, titles of related documents, commitment and activity descriptions, and similar fields. Finally, the commitment status may be used to limit the search to only active, only historical, or all commitments.

```
?|                                                                                   3.1

                      DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                      COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                  KEY TERM SEARCH

          SEARCH FOR THE FOLLOWING KEY TERM: EEEEEEEEEEEEEEEEEEEEEE

                      SEARCH KEY TERM FIELDS ONLY? E (Y or N)
                IF "N", LARGE TEXT FIELDS, ABSTRACTS, TITLES, ETC. WILL BE SEARCHED

          STATUS: ACTIVE (A) HISTORICAL (H) OR BOTH (B)? E
```

The following are entry fields for this screen:

1. Field Label: Key Term
   Description: Word or combination of words for which the user is searching
   Characters: 20
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Environmental Impact"

2. Field Label: Search in key term fields only?
   Description: Captures user response. Does user want the system to search in other areas of the data file for words that match the entered key term?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes
   Example: Only "Y" or "N" are accepted inputs for this field

3. Field Label: Status:....
   Description: Captures user response. Does the user want to restrict the search to records on active ("Open" or "Pending" status) or historical ("Closed") commitments, or extend search to all records?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes
   Example: Only "A", "H", or "B" are accepted inputs for this field

Screen 3.2: Documents in Common

The Documents in Common screen enables the user to analyze the relationships among commitments based on the documents that are identified as source, reference, or closure documents. The user must enter a publication number, but need not enter the remaining identifying information if all references to all versions of that publication are desired.

The user may restrict the search to documents of a given category or set of categories by selecting any or all (default is all) of the categories. Further, the user may limit the search to ONLY Active or ONLY Historical commitments and activities, or search all.

```
?|                                                                    3.2

                DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                   COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                              DOCUMENTS IN COMMON

                 ENTER DOCUMENT IDENTIFYING INFORMATION BELOW
                      ONLY TO THE DESIRED LEVEL OF COMPARISON

                          PUB #: VVVVVVVVVVVVVVV
REV/SUPP #: EE   DATE: EE/EE/EEEE   SECTION: EEEEEEEEEEEEEEEE   PAGE: EEEEEEEEE

                 DOCUMENT TYPE: EEEEEEEEEEEEEEEE

     SEARCH FOR DOCUMENT UNDER THE FOLLOWING CATEGORIES:

          E  SOURCE        E  CLOSURE
          E  REFERENCE     E  ALL

     STATUS: ACTIVE (A) HISTORICAL (H) OR BOTH (B)? E
```

The following are entry fields for this screen:

1. Field Label: Pub #
   Description: Publication number of the document of interest
   Characters: 15
   Type: Alphanumeric
   Validation: <DATA> verified
   Required?: No

2. Field Label: Rev/Supp #
   Description: Revision or supplement number of the document of interest
   Characters: 3
   Type: Alphanumeric
   Validation: <DATA> verified
   Required?: No

3. Field Label: Date
   Description: Publication date of the document of interested
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes

4. Field Label: Section
   Description: Section designation within the document of interest
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No

5. Field Label: Page
   Description: Page number of interest within the document
   Characters: 10
   Type: Alphanumeric
   Validation: None
   Required?: No

6. Field Label: Document Type
   Description: Type of document to be selected
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No

7. Field Label: Search for Document....
   Description: Four fields capture user response. Does the user want to restrict the search to source, reference, or closure documents, or a combination of those documents, or extend the search to all documents?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes
   Example: "X" in spaces next to appropriate selection(s)

8. Field Label: Status:....
   Description: Captures user response. Does the user want to restrict the search to records on active ("Open" or "Pending" status) or historical ("Closed") commitments, or extend search to all records?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes
   Example: Only "A", "H", or "B" are accepted inputs for this field

Screen 3.3: Organization Name

The Organization Name screen enables the user to search for commitments and documents based on the name of a given organization and its involvement with the commitment. This means that the user may search based solely on the organization's involvement as an originating organization, or as both originator and responding organization, or a number of other combinations. The search can be limited to active commitment, historical commitments, or both.

```
?|                                                                    3.3

                DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                     COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                ORGANIZATION NAME

                      ORGANIZATION: EEEEEEEEEEEEEEEEEEEEEE

                  SEARCH FOR ORGANIZATION IN THE FOLLOWING FIELDS:

            E COMMITMENT ORIGINATING ORGANIZATION
            E COMMITMENT RESPONDING ORGANIZATION
            E SOURCE DOCUMENT AUTHOR ORGANIZATION
            E SOURCE DOCUMENT RECIPIENT ORGANIZATION
            E REFERENCE DOCUMENT AUTHOR ORGANIZATION
            E REFERENCE DOCUMENT RECIPIENT ORGANIZATION
            E CLOSURE DOCUMENT AUTHOR ORGANIZATION
            E CLOSURE DOCUMENT RECIPIENT ORGANIZATION

          STATUS: ACTIVE (A) HISTORICAL (H) OR BOTH (B)? E
```

The following are entry fields for this screen:

1. Field Label: Organization
   Description: Captures the name of the organization for comparison against appropriate database fields.
   Characters: 20
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "INEL"

2. Field Label: Search for Organization....
   Description: Eight fields capture user response. Does the user want to restrict the search to a specific field in a specific set of documents, or a combination of those documents, or extend the search to all documents?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes
   Example: "X" in spaces next to appropriate selection(s)

3. Field Label: Status:....
   Description: Captures user response. Does the user want to restrict the search to records on active (e.g., "Open" or "Pending" status) or historical ("Closed") commitments, or extend search to all records?
   Characters: 1

Type:	Alphanumeric
Required?:	Yes
Example:	Only "A", "H", or "B" are accepted inputs for this field

Screen 3.4: Functional Area

The Functional Area screen allows the user to search for documents based on the discipline relevant to the commitment and to restrict the search to commitments of a given type and status.

```
?|                                                                    3.4

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                        COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                   FUNCTIONAL AREA

FUNCTIONAL AREA: EEEEEEEEEEEEEEEEEEEEEEE

COMMITMENT TYPE: EE OR EE OR EE OR EE (DEFAULT = ALL)

STATUS: ACTIVE (A) HISTORICAL (H) OR BOTH (B)? E
```

The following are entry fields for this screen:

1. Field Label: Functional Area
   Description: Specific discipline responsible for resolving the commitment, e.g., electrical, civil, mechanical, environmental, geology, etc.
   Characters: 25
   Type: Alphanumeric
   Validation: None
   Required?: Yes

2. Field Label: Commitment Type
   Description: Category of the commitment
   Characters: 2 (up to 4 possible entries)
   Type: Alphanumeric
   Validation: <TABLE> verified
   Required?: No

3. Field Label: Status:....
   Description: Captures user response. Does the user want to restrict the search to records on active (e.g., "Open" or "Pending" status) or historical ("Closed") commitments, or extend search to all records?
   Characters: 1
   Type: Alphanumeric
   Required?: Yes

Example: Only "A", "H", or "B" are accepted inputs for this field

Screen 3.5: Search Results

The Search Results screen offers the user a selection between displaying commitments that match search criteria and activities that match search criteria. The user may view commitments and activities for any search, but must make a choice at this screen and view them separately because each of these requires a slightly different screen to display properly.

```
?|                                                                    3.5

                 DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                   COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                SEARCH RESULTS

     SELECT DISPLAY:
          COMMITMENTS MATCHING SEARCH CRITERIA
          ACTIVITIES MATCHING SEARCH CRITERIA

     SELECTION: B
```

Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

Screen 3.5A: Commitments Matching Search Criteria

The Commitments Matching Search Criteria screen displays the Commitment Type, Number, Status, Due Date, Originating Org and Responding Org and the Abstract for commitments that match the given search parameters.

The user can view details (beginning with the Basic Information screen) of a particular commitment by moving the cursor to that commitment (or, in Windows, highlighting the commitment) and pressing ENTER. To return to this screen, the user would then press ESCAPE.

In addition, the user may print a report listing the displayed fields by pressing "P".

```
?|                                                                          3.5A

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                         COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                         COMMITMENTS MATCHING SEARCH CRITERIA

COMMITMENT                                ORIGINATING        RESPONDING
TYPE      NUMBER   STATUS    DUE DATE ORGANIZATION  ORGANIZATION
CRITERIA:
 DD DDDDDDDDDD  DDDDDDDD  DD/DD/DDDD  DDDDDDDDDDDDDDDD DDDDDDDDDDDDDDDD
KEY WORD: DDDDDDDDDDDDDDDDDDDDD  FUNCTIONAL AREA: DDDDDDDDDDDDDDDDDDDDD
RESULTS:
 DD DDDDDDDDDD  DDDDDDDD  DD/DD/DDDD  DDDDDDDDDDDDDDDD DDDDDDDDDDDDDDDD
ABSTRACT:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DD DDDDDDDDDD  DDDDDDDD  DD/DD/DDDD  DDDDDDDDDDDDDDDD DDDDDDDDDDDDDDDD
ABSTRACT:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DD DDDDDDDDDD  DDDDDDDD  DD/DD/DDDD  DDDDDDDDDDDDDDDD DDDDDDDDDDDDDDDD
ABSTRACT:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DD DDDDDDDDDD  DDDDDDDD  DD/DD/DDDD  DDDDDDDDDDDDDDDD DDDDDDDDDDDDDDDD
ABSTRACT:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

PRESS ENTER TO DISPLAY DETAIL                    PRESS P TO PRINT THE RESULTS LIST
PRESS PG-DN/PG-UP TO DISPLAY ADDITIONAL RECORDS
```

All fields on this screen are display only. The display is divided into two parts: the criteria section, which displays the search criteria that were entered to generate the current list of records, and the results section which lists the identifying information from the selected records.

Screen 3.5B: Activities Matching Search Criteria

The Activities Matching Search Criteria screen displays the Activity Sequence Number, Status, Due Date, Responsible Organization, Commitment Type and Number, and Activity Description for Activities that match the given search parameters.

The user can view details (the Commitment Activities screen) of a particular activity by moving the cursor to that activity (or, in Windows, highlighting the commitment) and pressing ENTER. To return to this screen, the user would then press ESCAPE.

In addition, the user may print a report listing the above fields by pressing "P".

```
2|                                                                                    3.5B

                    DDDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                         COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                ACTIVITIES MATCHING SEARCH CRITERIA

SEQUENCE                                  RESPONSIBLE        COMMITMENT
 NUMBER  STATUS    DUE DATE ORGANIZATION  TYPE               NUMBER
CRITERIA:
 DDDD    DDDDDDDD    DD/DD/DDDD   DDDDDDDDDDDDDDDD      DD  DDDDDDDDDD
KEY WORD: DDDDDDDDDDDDDDDDDDDDD FUNCTIONAL AREA: DDDDDDDDDDDDDDDDDDDDD
RESULTS:
 DDDD    DDDDDDDD    DD/DD/DDDD   DDDDDDDDDDDDDDDD      DD  DDDDDDDDDD
DESCRIPTION:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DDDD    DDDDDDDD    DD/DD/DDDD   DDDDDDDDDDDDDDDD      DD  DDDDDDDDDD
DESCRIPTION:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DDDD    DDDDDDDD    DD/DD/DDDD   DDDDDDDDDDDDDDDD      DD  DDDDDDDDDD
DESCRIPTION:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

 DDDD    DDDDDDDD    DD/DD/DDDD   DDDDDDDDDDDDDDDD      DD  DDDDDDDDDD
DESCRIPTION:
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

PRESS ENTER TO DISPLAY DETAIL                    PRESS P TO PRINT THE RESULTS LIST
PRESS PG-DN/PG-UP TO DISPLAY ADDITIONAL RECORDS
```

All fields on this screen are display only. The display is divided into two parts: the criteria section, which displays the search criteria that were entered to generate the current list of records, and the results section which lists the identifying information from the selected records.

Screen 3.6: Commitment/Activity Status Report

The Commitment/Activity Status Report screen allows the user to tailor a status report based on Commitments only, Activities only, Active or Historical status, Due Dates, Completion Dates, and Closed Dates.

```
?|                                                                    3.6

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                        COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                          COMMITMENT/ACTIVITY STATUS REPORT

SEARCH COMMITMENTS ONLY (C)  ACTIVITIES ONLY (A) OR BOTH (B)? E

COMMITMENT/ACTIVITY STATUS:  ACTIVE (A)  HISTORICAL (H)  BOTH (B)? E

SEARCH FOR DUE DATES BETWEEN EE/EE/EEEE AND EE/EE/EEEE

SEARCH FOR COMPLETION DATES BETWEEN EE/EE/EEEE AND EE/EE/EEEE

SEARCH FOR CLOSED DATES BETWEEN EE/EE/EEEE AND EE/EE/EEEE

ADDITIONAL SELECTION CRITERIA:
     COMMITMENT TYPE                EE
     ORIGINATING ORGANIZATION       EEEEEEEEEEEEEEE
     RESPONDING ORGANIZATION        EEEEEEEEEEEEEEE
     ORIGINATING INDIVIDUAL       EEEEEEEEEEEEEEEE
     RESPONDING INDIVIDUAL        EEEEEEEEEEEEEEEE
```

The following additional fields can be used to further restrict the search:

1. Field Label: Commitment Type
   Description: Category of the commitment
   Characters: 2
   Type: Alphanumeric
   Validation: <TABLE> verified
   Required?: No

2. Field Label: Originating Organization
   Description: Organization initiating the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No

3. Field Label: Responding Organization
   Description: Organization responsible for resolution of the commitment
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No

4. Field Label: Originating Individual
   Description: Name of the primary contact within the originating organization
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No

5. Field Label: Responding Individual
   Description: Name of the primary contact within the responding organization
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: No

Screen 3.7: Data for Commitments

The Data for Commitments screen allows the user to locate all relevant data for a given commitment or group of commitments (up to 20). The user may specify whether the search is to include only basic information or all information about the commitment.

```
?|                                                                          3.7

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                DATA FOR COMMITMENTS

TYPE   NUMBER        TYPE   NUMBER        TYPE   NUMBER        TYPE   NUMBER

EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE

EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE

EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE

EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE

EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE   EE     EEEEEEEEEEE

BASIC INFORMATION (B) OR ALL INFORMATION (A): E
```

The following are entry fields for this screen (the user may enter up to 20 Type/Number combinations):

1. Field Label: Type
   Description: Category of the commitment
   Characters: 2
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes (at least 1 entry for each commitment)

2. Field Label: Number
   Description: Specific identifying number of the commitment
   Characters: 10
   Type: Alphanumeric
   Validation: None
   Required?: Yes (at least 1 entry for each commitment)

Screen 3.8: Periodic Reports

The Periodic Reports screen allows the user to generate any of three types of reports for display or printing by entering a report letter and either "D" or "P" for the output selection.

For Schedule Date Reports, the user must enter a date range. Schedule date reports compare the supplied start and end dates to the due dates of activities or commitments and generate the report based on records that fall within the established range.

The monthly activity report identified activities closed out during the given month, or remaining open at the end of that month.

The Ad Hoc report option sends the user to the parent software (e.g., FoxPro) to develop a report to meet the user's specific needs.

```
?|                                                                    3.8

                DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                   COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                              PERIODIC REPORTS

                    ENTER LETTER CODE TO SELECT MENU ITEM

          SCHEDULE DATE REPORTS
           START: EE/EE/EEEE  END: EE/EE/EEEE

          MONTHLY ACTIVITY REPORT
           FOR THE MONTH OF: EE/EEEE  (ENTER MONTH AND YEAR)

          AD HOC REPORTS

                 SELECT DISPLAY (D) OR PRINT (P): E
```

The following fields are entry fields on this screen:

1. Field Label: Schedule date reports start/end
   Description: These two fields define the date range for the reports, based on the due date of the commitment
   Characters: 10
   Type: Numeric date (MM/DD/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/07/1994"

2. Field Label: Monthly activity report date
   Description: Identify month and year of interest for report
   Characters: 7
   Type: Numeric date (MM/CCYY)
   Validation: Operating system validated date
   Required?: Yes
   Example: "03/1994"

5.4.3 Maintenance Subsystem

Screen 4.0: Maintenance Menu

The Maintenance Menu allows the user to modify the verification tables (i.e., the tables from which <TABLE> selections are made), to recover damaged files or files deleted in error, to assign backup method preferences, and to assign system security levels (i.e., levels of access authorized to

particular users). Under a Windows platform, the user may make a menu selection by highlighting and mouse-clicking the desired item. Under DOS, the user makes the selection by entering a letter that is highlighted on the screen. (In this text, the appropriate letter is underlined.)

```
?|                DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE                4.0
                  COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                MAINTENANCE MENU

    SYSTEM SECURITY
        INDIVIDUAL SECURITY SETTINGS (ASSIGN/MODIFY/DELETE)                  4.1

    MODIFY SYSTEM SETTINGS                                                   4.2

    MODIFY STANDARD ACTIVITIES                                               4.3

    COPY/TRANSFER DATA (X)                                                   4.4

    MODIFY VERIFICATION TABLES
        COMMITMENT TYPE
        DOCUMENT TYPES
        FUNCTIONAL AREAS
        KEY TERMS LIST
        ORGANIZATION NAMES
        STATUS DESCRIPTIONS

    RECOVER FILE

    BACKUP PREFERENCES
        MANUAL.  BACK UP SYSTEM NOW.
        AUTOMATIC.  BACK UP SYSTEM EVERY EE HOURS EE MINUTES.
```

System Security enables the user to limit or expand a given user's authorization for access to the database. For example, the database administrator must have unlimited access to all areas of the database, while a casual user may only have read access (i.e., search, view, and print capabilities only). These settings are made through screen 4.1, below.

Modify System Settings permits the user to make changes to information about the State managing organization, the location of files on the system, the full text search software, etc.

Modify Standard Activities allows the user to set up and make changes to the standard activities performed for a particular type of commitment.

Copy/Transfer Data enables the user to copy information about one commitment to another. This speeds the entry process when there is repetitive information (e.g., when source/related document information is copied from one commitment to another contained in the same source document.)

Modify Verification Tables allows the user to make additions, corrections, or deletions to any of the verification tables from which field selections are made. To access tables under this menu, the user presses the underlined letter in the name of the desired table. This will bring the table to the screen in a browse format in which any changes may be made by the user.

Recover File starts a file recovery subroutine within the user's operating system.

Backup Preferences allows the user to either perform an immediate, manual backup or to set a time frequency for automatic backups.

Screen 4.1: Individual Security Settings

The Individual Security Settings screen allows the database administrator to define access for a given user for each screen within the system. From this screen, the database administrator may add new users, modify an existing user's access, print details about a given user's access, or delete a given user from the system. Access is assigned for either of two levels: User (search/view/print only) and Admin (full access to system).

```
?|   ADD    EDIT    PRINT    DELETE                                    4.1

                 DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                    COMMITMENT TRACKING SYSTEM (VERSION 1.0)
____________________________________________________________________________
                          INDIVIDUAL SECURITY SETTINGS
____________________________________________________________________________

        INDIVIDUAL'S NAME: EEEEEEEEEEEEEEE

        ID #: EEEEE

        SECURITY LEVEL: EEEEE

        PASSWORD: EEEE
```

The following are entry fields for this screen:

1. Field Label: Individual's Name
   Description: Name of the individual for whom the security settings are relevant
   Characters: 15
   Type: Alphanumeric
   Validation: None
   Required?: Yes

2. Field Label: ID#
   Description: System identifier specific to this individual, assigned by the database administrator
   Characters: 5
   Type: Alphanumeric
   Validation: <DATA> verified to preclude duplication
   Required?: Yes

3. Field Label: Security Level
   Description: Defines the level of access permitted to the individual
   Characters: 5
   Type: Alphanumeric
   Validation: Only "User" or "Admin" will be accepted.
   Required?: Yes

4. Field Label: Password
   Description: Assigned alphanumeric string that permits the user to enter the system
   Characters: 4
   Type: Alphanumeric
   Validation: None
   Required?: Yes

Screen 4.2: System Settings

This screen permits the system administrator to enter general information about the State. Of particular importance is the entry regarding the State commitment numbering format, search path, and search format.

The State's full name is carried forward to each of the subsequent screens as part of the screen title. Other data are used in the operation of the system and in reports generated by the system.

```
?|                    LOW LEVEL RADIOACTIVE WASTE                          4.2
                  COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                SYSTEM SETTINGS

FOR THE STATE OF EE (ENTER 2-CHARACTER CODE)
FULL STATE NAME: DDDDDDDDDDDDDDDDDDDDDDDDDDD
COMPACT NAME (IF ANY): EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
STATE MANAGING ORGANIZATION NAME:                    ACRONYM:
EEEEEEEEEEEEEEEEEEEE
```

3. Field Label: Compact Name (If Any)
   Description: Full name of compact under which the State operates, if applicable
   Characters: 60
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Southeast"

4. Field Label: State Managing Organization
   Description: Full name of State organization reporting to compact/NRC
   Characters: 60
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "North Carolina Low Level Radioactive Waste Management Authority"

5. Field Label: Acronym
   Description: Group of initial letters by which the State Managing Organization is known
   Characters: 10
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "NCLLWMA"

6. Field Label: Mailing Address
   Description: Street, PO Box, etc. for State Managing Organization
   Characters: 3 60-character fields
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "PO Box 16464"

7. Field Label: City
   Description: Post office city of State Managing Organization
   Characters: 20
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Raleigh"

8. Field Label: State
   Description: Postal code for State
   Characters: 2
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "NC"

9. Field Label: Zip
   Description: Postal zip code for city
   Characters: 5
   Type: Numeric
   Validation: None
   Required?: Yes
   Example: "22164"

10. Field Label: Contact Name
    Description: Name of primary contact at State managing organization
    Characters: 15
    Type: Alphanumeric
    Validation: None
    Required?: No
    Example: Last Name space Initial, "Harmon D"

11. Field Label: Contact Phone
    Description: Telephone number of primary contact at State managing organization, including space for an extension number
    Characters: 14
    Type: Numeric
    Validation: None
    Required?: No
    Example: "703-246-0705 0591"

12. Field Label: Commitment Numbering Format
    Description: Description by example of State's format for assigning commitment numbers. This field sets up the "PICTURE" in the system programming for which characters are letters (A), numbers (N), symbols, or spaces.
    Characters: 10
    Type: Alphanumeric
    Validation: None
    Required?: Yes
    Example: "A-NNNNN-NN"

13. Field Label: Search Path
    Description: Path for ZyIndex (or similar index software) search
    Characters: 29 (including separators)
    Type: Alphanumeric
    Validation: Operating system will reject incorrectly formatted entry
    Required?: No
    Example: "D:\root\subdir\subsubdr"

14. Field Label: Search Format
    Description: Name of index software used for full text searches
    Characters: 8
    Type: Alphanumeric
    Validation: None
    Required?: Yes
    Example: "ZYINDEX"

15. Field Label: Data Files
    Description: Path in which system must look for data files
    Characters: 29 (including separators)
    Type: Alphanumeric
    Validation: Operating system will reject incorrectly formatted entry
    Required?: No
    Example: "D:\root\subdir\subsubdr"

16. Field Label: Program Files
    Description: Path in which system must look for program files
    Characters: 29 (including separators)
    Type: Alphanumeric
    Validation: Operating system will reject incorrectly formatted entry
    Required?: No
    Example: "D:\root\subdir\subsubdr"

Screen 4.3: Standard Activity Steps Screen

The Standard Activity Steps screen enables the user to provide information about the standardized steps used by the State in processing commitments. Each step is identified by its order number, the responsible organization, and maximum processing time.

```
?|   ADD    EDIT    VIEW    PRINT    DELETE                                    4.3

                    DDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                STANDARD ACTIVITY STEPS

STEP SEQUENCE NUMBER: EEEE

ORIGINATING ORG: EEEEEEEEEEEEEEEEEEEEE  RESPONDING ORG: EEEEEEEEEEEEEEEEEEEEE

ACTIVITY TYPE: EEEEEEEEEEEEEEEEEEEEE

ACTIVITY DESCRIPTION:
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
  EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE

DURATION (IN DAYS): EEEE (# OF DAYS FROM START TO DUE DATE)

ENTER ANOTHER ACTIVITY? E (Y or N)
```

The following are the entry fields for this screen:

1. Field Label: Step Sequence Number
   Field Name: CASEQUENCE
   Description: Identifier used for sequencing
   Characters: 4
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "423A"

2. Field Label: Originating Org
   Field Name: CAOORG
   Description: Organization that initiated the activity
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes
   Example: "INEL"

3. Field Label: Responding Org
   Field Name: CARORG
   Description: Organization, company, or other affiliation of comment recipient
   Characters: 15
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: No
   Example: "Chem Nuclear"

4. Field Label: Activity Type
   Field Name: CATYPE
   Description: Summation of the requested action
   Characters: 20
   Type: Alphanumeric
   Validation: None
   Required?: Yes
   Example: "Verification"

5. Field Label: Activity Description
   Field Name: CADESCR
   Description: Brief description of the actions taken/requested by the activity
   Characters: 254
   Type: Alphanumeric
   Validation: None
   Required?: No
   Example: "Re-review site selection criteria for completeness"

6. Field Label: Duration
   Field Name: CADURA
   Description: Number of days in which the activity must be completed
   Characters: 4
   Type: Numeric
   Validation: None
   Required?: Yes
   Example: "90"

7. Field Label: Add another activity?
   Description: Allows user to add additional sequential standard activities
   Characters: 1
   Type: Alphanumeric
   Validation: Only "Y" or "N" are acceptable entries
   Required?: Entry
   Example: "Y"

Screen 4.4: Commitment Copy/Transfer Screen

The Commitment Copy/Transfer screen enables the user to copy selected commitment information or an entire commitment to a new commitment or to transfer selected information to an existing commitment.

```
?|   ADD    EDIT    VIEW    PRINT    DELETE                                    4.4

                    DDDDDDDDDDDDDDDD LOW LEVEL RADIOACTIVE WASTE
                       COMMITMENT TRACKING SYSTEM (VERSION 1.0)
                                COMMITMENT COPY/TRANSFER
COMMIT TYPE: EE NUMBER: EEEEEEEEEEE STATUS: EEEEEEEE ENTRY DATE: EE/EE/EEEE

ENTER "C" FOR COPY OR "T" FOR TRANSFER: E

COPY/TRANSFER TO COMMITMENT TYPE: VV  NUMBER: VVVVVVVVVV

COPY/TRANSFER THE FOLLOWING INFORMATION: (MARK SELECTIONS WITH "X")

     E    BASIC INFORMATION
     E    SOURCE DOCUMENT
     E    COMMITMENT TEXT
     E    REFERENCE DOCUMENTS (COPIES/TRANSFERS ALL DOCUMENTS)
     E    CLOSURE DOCUMENTS (COPIES/TRANSFERS ALL DOCUMENTS)
     E    ACTIVITIES (COPIES/TRANSFERS ALL ACTIVITIES)
     E    RESPONSES (COPIES/TRANSFERS ALL RESPONSES)

HAVE YOU COMPLETED YOUR SELECTION(S)? E (Y or N)
```

The following are the entry fields for this screen:

1. Field Label: Commit Type
   Description: Indicator for the type of commitment to which the information is to be copied or transferred
   Characters: 2
   Type: Alphanumeric
   Validation: <TABLE> selection
   Required?: Yes. Selects the correct existing commitment or entry of correct information to a new commitment

2. Field Label: Number
   Description: Defines the assigned number of the commitment to which the information is to be copied or transferred
   Characters: 10
   Type: Alphanumeric
   Validation: <DATA> validated
   Required?: Yes. Selects the correct existing commitment or entry of correct information to a new commitment

3. Field Label: Basic Information
   Description: This field, when marked with an "X", selects all information from the Basic Information screen (1.1) for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

4. Field Label: Source Document
   Description: This field, when marked with an "X", selects all information from the Source Document screen (1.2) for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

5. Field Label: Commitment Text
   Description: This field, when marked with an "X", selects all information from the Commitment Text screen (1.3) for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

6. Field Label: Reference Documents
   Description: This field, when marked with an "X", selects all information from the Related Documents screen (1.4) for those records with Document Type "REFERENCE" for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

7. Field Label: Closure Documents
   Description: This field, when marked with an "X", selects all information from the Related Documents screen (1.4) for those records with Document Type "CLOSURE" for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

8. Field Label: Responses
   Description: This field, when marked with an "X", selects all information from the Commitment Responses screen (1.5) for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

9. Field Label: Activities
   Description: This field, when marked with an "X", selects all information from the Commitment Activities screen (1.6) for copying to a new commitment or transferring to a specified existing commitment.
   Characters: 1
   Type: Alphanumeric
   Validation: X or blank
   Required?: No

6. BASES FOR SELECTION OF MODEL

6.1 Adaptability of Existing Tracking Systems

Development and use of new computer applications can be accomplished in a number of ways. The most effective (and usually the least costly) method for new computer applications is purchase of an "off-the-shelf" commercially available hardware and software package that already does what is required for the new application.

If this option is not feasible, usually the next option is to modify an existing similar system application. For this to be a feasible option, hardware and software changes should be minimal.

The most expensive method for development and use of new computer applications is development of a customized system. While this usually ensures that the system requirements will be met, this method can be very expensive from development time and cost through system procurement and operation. This is usually the last resort if no other options are available.

As can be seen from a review of existing tracking systems contained in Section 4, there is currently no "off-the-shelf" system that will meet all of the requirements for commitment tracking shown in Section 5. Mainframe and minicomputer system hardware and software are not considered "readily available" to all of the States because of their high capital cost. In addition, these systems could not be cost justified based on commitment tracking needs alone. Review of the system requirements shows that PC systems, which are low-cost and are readily available commercially, will meet the tracking system requirements listed in Section 5 above.

The Kepner-Tregoe (K-T) decision analysis described below shows that a subset of the PC-based tracking system satisfies all of the "musts" for the tracking system. For completeness, each of the existing tracking systems listed in Section 4 above is included in Figures 6.1 and 6.2 below. Further analysis shows that CATS and LRS are sufficiently similar to the desired commitment tracking system to merit further consideration as feasible platforms for development of a model tracking system.

6.2 Decision Analysis

This section of the report describes the decision analysis applying to the recommended system using K-T decision analysis methodology. K-T is a systematic decision analysis method that involves two main steps:

(1) The requirements ("musts") for the final solution are first delineated. Any viable outcome must meet all of the minimum requirements to be considered further.

(2) Additional desirable features ("wants") that are factored into the decision are then listed and numerically weighted by relative importance (i.e., the most important want is given the most weight). Other "wants" are weighted based on their relative importance (e.g., an

item that is half as important as the most important want receives half the numerical weight). Each decision option is then scored based on its relative ability to meet the want. The total weighted score (the sum of the numerically weighted "wants" multiplied by the score for each item) is used to determine the best decision option.

Total scores that are nearly equal means that the options meet the criteria equally. An advantage of K-T analysis is that it allows the decision analyst to change the relative weights to determine if this changes the decision outcome. As can be seen from a review of the existing tracking systems, there is currently no "off-the-shelf" system (i.e., one that can be directly used without any modification) that will meet the requirements for full capability commitment tracking.

Tables 2 and 3 show system musts and wants organized into groups by whether the subject system passed the MUSTS screen. Each of the system elements is discussed below, following the order of the chart.

Table 2. Kepner-Tregoe analysis of options for model commitment tracking system (systems reviewed that passed the MUSTs screen).

Musts for system	CATS	LRS
Capable of recording and tracking interrogatories and responses	Yes	Yes
Hardware and software readily available	Yes	Yes
System available during normal work hours	Yes	Yes
Adequate storage for program and data	Yes	Yes
Minimal computer expertise required	Yes	Yes
Controllable configuration	Yes	Yes
Security for Add/Edit/Delete capabilities	Yes	Yes

		CATS		LRS	
Wants for system	Weight	Score	Wt.Sc.	Score	Wt.Sc
Minimal cost to State	10	7	70	7	70
Minimal response time for queries and reports	9	5	45	10	90
Search capability/User defined queries	8	5	40	10	80
Report capability for both full database and query results	8	10	80	10	80
Flexible output: display or print reports	7	10	70	10	70
Cross-reference of interrogatories and related documents	7	10	70	10	70
Lookup tables to reduce keystroking errors and increase entry speed	6	10	60	10	60
Ability to add, transfer, and copy data to/from existing records	2	0	0	7	14
Query/view/print capability for all users	2	10	20	10	20
Master database available through network server	1	10	10	10	10
Total weighted score			465		564

Table 3. Kepner-Tregoe analysis of options for model commitment tracking system (systems reviewed that failed the MUSTs screen).

Musts for system	MCADMS	Nebraska	Texas	Illinois	TERMS	RCMP	FOAL
Capable of recording and tracking interrogatories and responses	No	Yes	Yes	Yes	Yes	Yes	No
Hardware and software readily available	Yes	No	Yes	Yes	No	Yes	Yes
System available during normal work hours	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adequate storage for program and data	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Minimal computer expertise required	Yes	No	Yes	Yes	No	No	No
Controllable configuration	Yes	Yes	No	No	Yes	Yes	Yes
Security for Add/Edit/Delete capabilities	Yes	Yes	No	No	Yes	Yes	No

6.2.1 MUSTs for Model Tracking System

As shown in Table 3, the Illinois, Texas, Nebraska, TERMS, RCMP, MCADMS, and FOAL systems were eliminated from further consideration because they did not meet all of the MUST conditions which are delineated below:

Capable of recording and tracking interrogatories. The system must provide a means to record data that identify and describe individual interrogatories, then enable the user to perform various analyses on that data.

Hardware and software must be readily available. Systems that require either hardware or software that are difficult to acquire are less likely to be accepted for use by the States. Acquisition difficulties may arise from the nature of the hardware (e.g., a mainframe computer) or if software has to be written from scratch (a long term, expensive process).

System must be available during normal working hours. Unless the system is available during regular working hours to those who need to access the data, the system with either: (a) not be used; or (b) require additional off-shift staff to perform data entry, queries, reports, etc. This seriously reduces the value of the system in that the people who need the information would not have ready access to it.

Storage adequate to hold program and data. We estimate that the data for the system will eventually take up 35-40 MB of hard disk space. (If the State plans to scan the full text of documents, it appears reasonable that at least another 40 MB of hard disk storage space would be needed.) Further, the system must be reliable. It must be able to maintain data integrity both during user sessions and shutdown (i.e., adequate RAM and backup capabilities).

Minimal computer expertise required. Users are unlikely to work with a system that is difficult either in actuality or in their perception. Both data administrators (responsible for making changes to the files) and general users need to feel that the system is easier than the "old way". This means that the developer must consider the following:

- Is operation of the system as close to intuitive as possible?
- Is a new user able to effectively operate the system with minimal training, based on information available on the screens?
- Is help for each screen entry available as a menu item (or, for Windows applications, at the click of a mouse)?
- Do screens have an uncluttered design and use terminology with which the user is already familiar?
- Do fields have distinctive names to avoid confusion?
- Will data be grouped in a logical manner both as separate screens and within individual screens?
- Does each screen identify the commitment to which it refers?
- Is navigation among screens simple, using pg-up/dn and menu selections?
- Is the master record information enterable ONLY from the basic information screen? On further screens, is it displayed (as identification for the subordinate records) but not modifiable?
- Is entry of additional information to existing interrogatories as well as the copying or transfer of information from one commitment to another a simple process?

Because the system does not require that a given user be an expert in working with computers and databases, all users' comfort level will be much higher with this system. (However, data administrators need to be fully trained in all aspects of the system, and there should be enough of these individuals at a given site to ensure that the absence of a single individual will not have the potential to shut down access to the system for a given period of time.)

Controllable configuration. The system must be relatively easy to modify. For example, a change in the type of printer used should not require the assistance of a computer expert.

Security for add/edit/delete. The system should be password-protected such that add, edit, and delete capabilities are restricted to certain individuals. Restricting the ability to modify or delete reduces the likelihood of inappropriate changes to the data.

6.2.2 WANTs for Model Tracking System

The two remaining systems meeting the MUST conditions, CATS and LRS, were then evaluated against the following WANT conditions. Cost was determined to be the most important factor and received the highest importance weighting of 10. All other features' relative importance was then determined. Features determined to be of high importance were weighted 10, 9, or 8. High importance features are those that are critical to the application. Features determined to be of medium importance were weighted 7, 6, or 5. Medium importance features are those which make the system more user oriented or reduce the detailed knowledge required by the user to operate the system successfully. Features determined to be of low importance were weighted 4 or less. Low importance features are desirable items that are nice to have. However, these items should be further evaluated for cost-effectiveness during the development of the model tracking system. The scores used ranged from 0 to 10. 0 means that the "want" is not met. 10 means that the "want" is fully met.

Minimal cost to State. The system should require only minimal capital expenditures inasmuch as the design should take into consideration hardware and software already in use. Operating costs should be minimized for a system that is easy to use, requires minimal training, and is easy to maintain. Overall consideration should be given to the positive impact that the system will have in the cost of collecting and organizing desired information. This is the most important factor for the LLW tracking system because it will be a key determinant of how widely it can be used. Both CATS and LRS are PC based systems using applications programs of commercially available software and thus have equal costs associated with them. However, since neither is strictly "off-the-shelf," less than a maximum score was equally assigned.

Minimal response time. Users should be able to count on fast system response to queries and report requests. This is an important feature, only slightly less important than cost, because potential users may be unwilling to use a system that does not respond to commands in a timely manner. Assuming similar PC configurations, LRS is about ten times faster than CATS. A score which is double that of CATS was assigned to LRS for this "want."

Search capability/User-defined queries on ALL types of fields. The data in a database is useless unless it can be accessed in some systematic fashion. In selecting a software package to hold the data for this system, how a particular package can affect the users' ability to capture all data relative to their needs at any given time must be considered. This feature is weighted as high importance because potential users may be unwilling to use a system that cannot search for and locate specific information. LRS, as reflected in its weighted score, was found to have a significant advantage for this feature. LRS searches are able to be performed on a greater number of data fields than for CATS. A score which is double that of CATS was assigned to LRS for this "want."

Report capability for both full database and query results. Users should be able to tailor reports to their needs. While reports based on the full database may be necessary from time to time, users need to be able to restrict reports and views to specific groupings of records. This feature is

weighted as high importance because a database provides little purpose to the user if the desired information cannot be generated and provided on a hard copy. CATS and LRS both have this capability and received the same score.

Flexible output: display or print reports. Users should have the option of viewing the requested information on-screen or printing it out. The anticipated size of the database is such that query results may contain a very high number of records. The user should be able to look at the query results and decide whether the query needs to be further refined before committing the report to the printer. This feature is weighted as medium importance because it is considered a user interface feature. CATS and LRS both have this capability and received the same score.

Cross-reference of interrogatories and related documents. As part of the querying capability, users need to be able to capture ALL documents that may relate to a particular topic or commitment. The basic information for a given commitment will include the numbers of any interrogatories known to have some relationship to the current one. This feature is weighted as medium importance because it is considered a user interface feature. CATS and LRS both have this capability and received the same score.

Lookup tables to reduce keystroking errors and increase entry speed. Repetitive information (such as commitment number and type, reference document titles and related information, etc.) lends itself to keystroking errors. Further, entry takes longer because the individual entering the data will need to stop and verify the entry each time. For those fields where entries will come from a very specific group of terms, the system should access tables of acceptable terms. For those fields where a duplicate entry would be an error (e.g., commitment number), the system should check against the database before permitting the new record to be added, and should alert the user if there is a duplication. This feature is weighted as medium importance because it is considered a user interface feature. The applications program developed for the model tracking system should have this capability whether CATS or LRS is used. Thus, CATS and LRS received the same score.

Ability to add, transfer, and copy data to/from existing records. Several interrogatories may be drawn from a given document, or may reference the same documents. Again, to reduce keystroke errors and increase entry speed, the data administrator should be able to duplicate information in one record and apply it to another. CATS does not have this capability. This feature is weighted as low importance and has a minor effect on the overall score. LRS was assigned less than the maximum score for this "want" because there may be some limitations based on the specific configuration used.

Query/view/print access to all data for all users. These are the functions most useful to all users and allow the user to find out what he needs to know, then generate a written report (or an electronic file of the data or report) if needed. This feature is weighted as low importance. CATS and LRS both have this capability and received the same score.

Master database available through network server. The system should have its master files stored in one location. The master files should reflect all changes made to the database at any given time. Users should access the master files through a network (rather than relying on local access to files that are periodically updated via some other means) to ensure that all users have current accurate information. This feature is weighted as low importance. However, it will allow

multiple users to access the commitment tracking system and may minimize reliance on one person to maintain the database. Assuming similar PC configurations, CATS and LRS received the same score.

6.3 System Selected for Model Tracking System

Based on the decision analysis shown above and summarized in Table 2, LRS was determined to be the best platform for development of the model tracking system.

Of the 10 wants listed, CATS and LRS received different scoring in three categories: (1) search capability, (2) response time, and (3) ability to copy and transfer data. In all three cases, LRS received the higher weighted score because of better capabilities relative to CATS. Because the scoring difference is solely based on system capabilities, changing the importance weighting of any of the "wants" would have no effect on the final selection.

7. LOGISTICS

The specific hardware and software necessary to run the model tracking system is described in Section 5. Interested States may need to obtain the additional hardware and software to operate the new tracking system. Because of this, low capital cost was considered as a "Must" in the selection of the model tracking system. Procurement of additional software is not expected to exceed $1,500. The need for additional computer hardware is dependent upon the current system used by the individual States. A Users Guide must also be prepared and supplied with the model tracking system. To meet the requirement for minimal training, this guide must include installation and operating procedures.

In addition, an assessment should be made of how individual States can transfer existing information into the model tracking system. Depending on the specific situation, this can reduce or eliminate the need to reenter data. For example, it is likely that California's interrogatory list can be optically scanned so that it can be transferred electronically into the new tracking system. Word processing files may require some manipulation to put into an appropriate format. However, it is anticipated that some additional data fields may need to be populated, even for those States for which existing information can be directly transferred into the new tracking program.

Each State will require about 40 staff-hours to load and test the model tracking system and validate the code tables. This validation includes specific State-related information such as the department responsible for resolving the commitment. Individual States may wish to add additional key words, document types, and the departments generating the interrogatory to the code tables by accessing the maintenance function of the tracking system. A person familiar with computer systems may be required to install and test the tracking system. States can test the model tracking system by entering sample data, validating the code tables, performing searches, and generating hard-copy reports.

8. SUMMARY

This report first described the general process for licensing an LLW disposal facility in accordance with 10 CFR 61 or similar State regulations. Then it described how an appropriate, PC-based tracking system would help the licensing process. This model tracking system would track, sort, classify, and cross reference interrogatories, and would

- Assure that all interrogatories have been addressed
- Minimize required public resources
- Assure that commitments are appropriately incorporated as license conditions
- Simplify administration of the license application review process
- Allow rapid retrieval of information by topical area, review step, or discipline
- Minimize research time
- Facilitate preparation for court challenges.

The experiences of eight States, including Nebraska, Illinois, and California, were then used to help develop suitable requirements for the model tracking system. In addition, similar tracking systems in use by commercial nuclear utilities and the U.S. Marine Corps were also reviewed. Existing tracking methods found in this review were considered potential platforms for developing a model tracking system.

A set of screens was then developed to address system maintenance, query, update, reporting, and other associated requirements. Hardware and software requirements as well as the data dictionary for the model tracking system were then presented. The recommended model tracking system will consist of PC hardware using FoxPro on either a Windows or a DOS operating environment.

The nine existing tracking methods were then evaluated using K-T decision analysis methodology against seven system "musts," which are as follows:

- The system must be capable of recording and tracking interrogatories and responses
- The hardware and software must be readily available
- The system must be available during normal work hours
- The system must have adequate storage for program and data
- The system must require minimum computer expertise to operate and maintain

- The system must have a controllable configuration

- The system must have security features for Add/Edit/Delete capabilities.

Only two existing tracking system approaches, CATS and LRS, were determined to meet all of the "musts" for the model system. Each of these systems was then evaluated against ten "wants", the most important of which was minimum system cost. Based on this analysis, LRS was determined to be the best choice as a platform for development of a model tracking system.

LRS is designed for Windows applications on IBM PC compatible computers. Selection of LRS is based on considering cost, training requirements, availability of hardware and software, ability to handle large amounts of information rapidly, and overall LLW disposal facility license review process needs.

The logistics for implementing the model system include installation, testing and validation, training, and transfer of information from existing systems. The need for additional computer hardware is dependent upon the current system used by the individual States. PC hardware is already generally available among the States contacted. It is estimated that each State will require about 40 staff-hours to load and test the model tracking system and validate the code tables. Procurement of additional software is not expected to exceed $1,500.

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Appendix A

Current States' Commitment Tracking Systems

Appendix A

Current States' Commitment Tracking Systems

This table identifies States' tracking systems and tracking systems used in other industries and the details of the hardware and software configurations.

	System specifics	
State/system	Hardware	Software
Texas	IBM PC	Microsoft Word
Nebraska	IBM 3090 Mainframe	VMS, SQL
Illinois	IBM PC	WordPerfect 5.2
RG&E CATS	IBM PC	dBase IV
TERMS	IBM 3090 Mainframe	Cobol
LRS	IBM PC	Windows, FoxPro
Calvert Cliffs RCMP	IBM PC	R:base 3.1
Monticello FOAL	IBM PC	R:base 2.11
MCADMS	IBM PC	dBase III Plus

Appendix B

Model Tracking System Data Dictionary

Appendix B

Model Tracking System Data Dictionary

The following tables summarize the data fields used in the model tracking system. (Data fields are those fields that contain information that is saved to the database files, and not temporary fields that contain yes/no responses, information for queries, etc.) Detailed descriptions of the fields appear on the pages after the tables. Table B-1 lists the fields in the order in which they appear in the screens. Table B-2 lists the fields alphabetically by field name. Field names have been limited to 10 characters.

The following legend applies to the table entries:

Size (Maximum number of alphanumeric characters for entry field)

VLT = Very Large Text Field

Type (Is entry field numeric or alphanumeric?)

a = alphanumeric
n = numeric

Valid (How is entry field validated?)

n = None
D = Data
S = Controlled by operating system
T = Table

Reqd (Is entry field required?)

n = no
y = yes

Table B-1. Data fields in the order in which they appear in screens.

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
CTYPE	Commitments menu	Commit type	2	a	T	y	IR
CNUMBER	Commitments menu	Number	10	a	D	y	E-00001-01
CTYPE	Basic information	Commit type	2	a	T	y	IR
CNUMBER	Basic information	Number	10	a	D	y	E-00001-01
CSTATUS	Basic information	Status	8	a	T	y	OPEN
CENTRY	Basic information	Entry date	10	n	S	n	03/07/1994
CABSTRACT	Basic information	Abstract	210	a	n	y	Identify which procedures control...
CKEY1...6	Basic information	Key terms	6x20	a	T	y	Environmental Impact
CAREA	Basic information	Functional area	20	a	n	y	Environmental
COORG	Basic information	Originating org	15	a	T	y	US EPA
CONAME	Basic information	Originating name	15	a	n	n	Harmon D
CRORG	Basic information	Responding org	15	a	T	y	US Ecology
CRNAME	Basic information	Responding name	15	a	n	y	Harmon D
CDUE	Basic information	Due date	10	n	S	n	03/07/1994
CCOMP	Basic information	Completed	10	n	S	n	03/07/1994
CCLOSED	Basic information	Agency closed	10	n	S	n	03/07/1994
CUPDT	Basic information	Last update	10	n	S	n	03/07/1994
CUPDTBY	Basic information	Updated by	15	a	n	n	Harmon D
CRELCOMM	Basic information	Related commitments	60	a	D	n	E-00001-01
DPUBNO	Source document	Publication #	15	a	D	n	NUREG/CR-5937
DTYPE	Source document	Document type	15	a	T	y	NUREG

Table B-1. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
DTITLE	Source document	Title	70	a	n	y	Code of Federal Regulations, Title 10
DREVSUPP	Source document	Rev/Supp #	3	a	n	n	S6a
DDATE	Source document	Date	10	n	S	y	03/07/1994
DSECTION	Source document	Sec	15	a	n	n	II.1.(a).i
DPAGE	Source document	Pg	15	a	n	n	40-4.1
DANAME	Source document	Author name	15	a	n	n	Harmon D
DAORG	Source document	Author org	15	a	T	n	US Ecology
DRNAME	Source document	Recipient name	15	a	n	n	Harmon D
DRORG	Source document	Recipient org	15	a	T	n	INEL Library
CTEXT	Commitment text	Commitment text	VLT	a	n	y	Provide additional information....
DPUBNO	Related documents	Pub #	15	a	D	n	NUREG-1200
DTYPE	Related documents	Doc type	15	a	T	y	NRC Report
DCAT	Related documents	Doc Cat	15	a	T	y	Closure
DTITLE	Related documents	Title	254	a	n	y	Code of Federal Regulations, Title 10
DREVSUPP	Related documents	Ref/Supp #	3	a	n	n	S6a
DDATE	Related documents	Date	10	n	S	y	03/07/1994
DSECTION	Related documents	Sec	15	a	n	n	10CFR61.3a
DPAGE	Related documents	Pg	10	a	n	n	40-4.1
DANAME	Related documents	Author name	15	a	n	n	Harmon D
DAORG	Related documents	Author org	15	a	T	n	Off Fed Register
DRNAME	Related documents	Recipient name	15	a	n	n	Harmon D

Table B-1. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
DRORG	Related documents	Recipient org	15	a	T	n	INEL Library
CCSDATE	Commitment comments	Source date	10	n	S	n	03/07/1994
CCSTYPE	Commitment comments	Source type	15	a	T	y	Letter
CCSANAME	Commitment comments	Author name	15	a	n	n	Harmon D
CCSAORG	Commitment responses	Author org	15	a	T	n	INEL
CCSRNAME	Commitment responses	Recipient name	15	a	n	n	Harmon D
CCSRORG	Commitment responses	Recipient org	15	a	T	n	US Ecology
CRESPONSE	Commitment responses	Response	VLT	a	n	n	Additional time may be...
CASTAT	Commitment activities	Status	8	a	T	n	Open
CASTATDES	Commitment activities	Status description	70	a	n	n	Inquiry sent 03/01/1994. Awaiting...
CASTART	Commitment activities	Start date	10	n	S	y	03/07/1994
CACOMP	Commitment activities	Completed	10	n	S	y	03/07/1994
STATECOD	Setup	For the State of	2	a	T	y	NC
StateNAM	Setup	Full State name	S	a	n	y	North Carolina
COMPACT	Setup	Compact name	60	a	n	y	Southeast
STATEMO	Setup	State managing organization	60	a	n	y	North Carolina Low-Level Radioactive...
STATEACR	Setup	Acronym	10	a	n	n	NCLLWMA
STREET1..3	Setup	Mailing address	3x60	a	n	y	PO Box 16464
CITY	Setup	City	20	a	n	y	Raleigh
STATECOD	Setup	State	2	a	T	y	NC
ZIP	Setup	Zip	5	n	n	y	22164

Table B-1. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
CONTNAME	Setup	Contact name	15	a	n	n	Harmon D
CONTPHON	Setup	Contact phone	14	n	n	n	703-246-0705 0591
FORMAT	Setup	Commitment numbering format	10	a	n	y	A-NNNNN-NN
SRCHPATH	Setup	Search path	29	a	S	n	d:\root\subdir\subsubdi
SRCHFMT	Setup	Search format	8	a	n	y	zyindex
DATAPATH	Setup	Data files	29	a	S	n	d:\root\subdir\subsubdi
PROGPATH	Setup	Program files	29	a	S	n	d:\root\subdir\subsubdi
CASEQUENCE	Standard activity steps	Step Sequence #	4	a	n	y	423A
CAORG	Standard activity steps	Originating org	15	a	T	y	INEL
CARORG	Standard activity steps	Responding org	15	a	T	n	Chem Nuclear
CATYPE	Standard activity steps	Activity type	20	a	n	y	Verification
CADESCR	Standard activity steps	Activity description	254	a	n	n	Re-review site selection...
CADURA	Standard activity steps	Activity duration	4	n	n	y	90

Table B-2. Entry fields sorted by field name.

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
CABSTRACT	Basic information	Abstract	210	a	n	y	Identify which procedures control...
CACOMP	Commitment activities	Completed	10	n	S	y	03/07/1994
CADESCR	Standard activity steps	Activity description	254	a	n	n	Re-review site selection...
CADURA	Standard activity steps	Activity duration	4	n	n	y	90
CAOORG	Standard activity steps	Originating org	15	a	T	y	INEL
CAREA	Basic information	Functional area	20	a	n	y	Environmental
CARORG	Standard activity steps	Responding org	15	a	T	n	Chem Nuclear
CASEQUENCE	Standard activity steps	Step Sequence #	4	a	n	y	423A
CASTART	Commitment activities	Start date	10	n	S	y	03/07/1994
CASTAT	Commitment activities	Status	8	a	T	n	Open
CASTATDES	Commitment activities	Status description	70	a	n	n	Inquiry sent 03/01/1994. Awaiting...
CATYPE	Standard activity steps	Activity type	20	a	n	y	Verification
CCLOSED	Basic information	Agency closed	10	n	S	n	03/07/1994
CCOMP	Basic information	Completed	10	n	S	n	03/07/1994
CCSANAME	Commitment comments	Author name	15	a	n	n	Harmon D
CCSAORG	Commitment responses	Author org	15	a	T	n	INEL
CCSDATE	Commitment comments	Source date	10	n	S	n	03/07/1994
CCSRNAME	Commitment responses	Recipient name	15	a	n	n	Harmon D
CCSRORG	Commitment responses	Recipient org	15	a	T	n	US Ecology
CCSTYPE	Commitment comments	Source type	15	a	T	y	Letter
CDUE	Basic information	Due date	10	n	S	n	03/07/1994

Table B-2. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
CENTRY	Basic information	Entry date	10	n	S	n	03/07/1994
CITY	Setup	City	20	a	n	y	Raleigh
CKEY1...6	Basic information	Key terms	6x20	a	T	y	Environmental Impact
CNUMBER	Basic information	Number	10	a	D	y	E-00001-01
CNUMBER	Commitments menu	Number	10	a	D	y	E-00001-01
COMPACT	Setup	Compact name	60	a	n	y	Southeast
CONAME	Basic information	Originating name	15	a	n	n	Harmon D
CONTNAME	Setup	Contact name	15	a	n	n	Harmon D
CONTPHON	Setup	Contact phone	14	n	n	n	703-246-0705 0591
COORG	Basic information	Originating org	15	a	T	y	US EPA
CRELCOMM	Basic information	Related commitments	60	a	D	n	E-00001-01
CRESPONSE	Commitment responses	Response	VLT	a	n	n	Additional time may be...
CRNAME	Basic information	Responding name	15	a	n	y	Harmon D
CRORG	Basic information	Responding org	15	a	T	y	US Ecology
CSTATUS	Basic information	Status	8	a	T	y	OPEN
CTEXT	Commitment text	Commitment text	VLT	a	n	y	Provide additional information....
CTYPE	Basic information	Commit type	2	a	T	y	IR
CTYPE	Commitments menu	Commit type	2	a	T	y	IR
CUPDT	Basic information	Last update	10	n	S	n	03/07/1994
CUPDTBY	Basic information	Updated by	15	a	n	n	Harmon D
DANAME	Source document	Author name	15	a	n	n	Harmon D

Table B-2. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
DANAME	Related documents	Author name	15	a	n	n	Harmon D
DAORG	Related documents	Author org	15	a	T	n	Off Fed Register
DAORG	Source document	Author org	15	a	T	n	US Ecology
DATAPATH	Setup	Data files	29	a	S	n	d:\root\subdir\subsubdi
DCAT	Related documents	Doc Cat	15	a	T	y	Closure
DDATE	Source document	Date	10	n	S	y	03/07/1994
DDATE	Related documents	Date	10	n	S	y	03/07/1994
DPAGE	Source document	Pg	15	a	n	n	40-4.1
DPAGE	Related documents	Pg	10	a	n	n	40-4.1
DPUBNO	Source document	Publication #	15	a	D	n	NUREG/CR-5937
DPUBNO	Related documents	Pub #	15	a	D	n	NUREG-1200
DREVSUPP	Related documents	Ref/Supp #	3	a	n	n	S6a
DREVSUPP	Source document	Rev/Supp #	3	a	n	n	S6a
DRNAME	Related documents	Recipient name	15	a	n	n	Harmon D
DRNAME	Source document	Recipient name	15	a	n	n	Harmon D
DRORG	Source document	Recipient org	15	a	T	n	INEL Library
DRORG	Related documents	Recipient org	15	a	T	n	INEL Library
DSECTION	Related documents	Sec	15	a	n	n	10CFR61.3a
DSECTION	Source document	Sec	15	a	n	n	II.1.(a).i
DTITLE	Related documents	Title	254	a	n	y	Code of Federal Regulations, Title 10
DTITLE	Source document	Title	70	a	n	y	Code of Federal Regulations, Title 10

Table B-2. (continued).

Name	Screen	Field Label	Size	Type	Valid	Reqd	Example
DTYPE	Related documents	Doc type	15	a	T	y	NRC Report
DTYPE	Source document	Document type	15	a	T	y	NUREG
FORMAT	Setup	Commitment numbering format	10	a	n	y	A-NNNNN-NN
PROGPATH	Setup	Program files	29	a	S	n	d:\root\subdir\subsubdi
SRCHFMT	Setup	Search format	8	a	n	y	zyindex
SRCHPATH	Setup	Search path	29	a	S	n	d:\root\subdir\subsubdi
STATEACR	Setup	Acronym	10	a	n	n	NCLLWMA
STATECOD	Setup	State	2	a	T	y	NC
STATECOD	Setup	For the State of	2	a	T	y	NC
STATEMO	Setup	State managing organization	60	a	n	y	North Carolina Low-Level Radioactive...
STATENAM	Setup	Full State name	S	a	n	y	North Carolina
STREET1..3	Setup	Mailing address	3x60	a	n	y	PO Box 16464
ZIP	Setup	Zip	5	n	n	y	22164

Appendix C

Sample Hard-Copy Reports

Appendix C

Sample Hard-Copy Reports

The following sample hard-copy reports are shown below:

- Basic Information Report
- Commitment Status Report
- Outstanding Items Report
- Activity Report
- Ad Hoc Report.

The Basic Information Report displays the following information for all commitments: commitment type, status, abstract, originating organization, responsible organization, due date, and completed date. The Commitment Status Report lists all the commitments with a due date in a particular time period. For example, using the sample hard-copy report shown below, only those commitments having a due date within 30 days of the current date appear on the report. The model tracking system will prompt the user to enter a specific number of days in which to search and retrieve data. The Outstanding Items Report lists all the commitments for which the completed date is blank, yet the due date is on or before the current date. The Activity Report contains a listing of all the activities. This report lists the commitment number associated with the activity, the activity sequence number, activity description, organization responsible for completing the activity, the date the activity is scheduled to be completed, and date the activity was completed.

In addition to the report types listed above, an *Ad Hoc* report feature will be included in the model system as described in Section 5 above. This feature will provide States with the capability to create specially tailored hard-copy reports. This feature may be especially valuable during the litigation process. For example, as shown below, if a State desired to retrieve a hard-copy report listing only the key words for each commitment with a status of pending, the user would only be required to select the commitment number, status, abstract, and keyword fields from the Ad Hoc Report field list.

Basic Information Report

Comm type	Number	Status	Abstract	Originating organization	Responsible organization	Due date	Completion date
IR	E-00001-01	Open	Provide additional information to clarify which agencies were involved in consultation.	Dept of Planning	U.S. Ecology	03/13/94	—
IR	E-00002-01	Closed	Clarify the property boundaries as they currently extend into Sections 30 and 45.	Dept of Natural Resources	U.S. Ecology	04/11/94	03/29/94
IR	E-00003-01	Open	Justify why groundwater samples should not be collected for four quarters to investigate seasonal variation for a 12-month period.	Dept of Water Resources	U.S. Ecology	04/21/94	—
IR	E-00004-01	Open	Describe the effects that a blockage in a surface drainage system component might have on the amount of water that infiltrates into the cover system.	Pollution Control Agency	U.S. Ecology	04/29/94	—
RG	S-00001-01	Open	How will US Ecology work with on-site inspector in resolving the final mitigation for waste deemed to be in noncompliance upon receipt.	Dept of Nuclear Safety	U.S. Ecology	05/15/94	—
IR	S-00002-01	Pending	Administrative dose limits are set at 50% of the 10 CFR Part 20 limits. Explain what action will be taken when an individual reaches an administrative limit.	Dept of Health	U.S. Ecology	05/22/94	—
IR	SEC-001-01	Pending	The high pressure sodium lights illuminating the operations and shop buildings are between the guard house and the disposal units, which do not have either illumination or intrusion alarms. Explain how the guards are to know if there is an intruder.	NRC	U.S. Ecology	06/30/94	—
IR	S-00003-01	Open	Identify the procedures used for test control. Also describe in detail the test controls implemented during site characterization activities.	Dept of Ecology	U.S. Ecology	06/30/94	—

Commitment Status Report

Comm type	Comm number	Comm status	Abstract	Due date	Completion date
IR	E-00002-01	Closed	Clarify the property boundaries as they currently extend into Sections 30 and 45.	04/11/94	03/29/94
IR	E-00003-01	Open	Justify why groundwater samples should not be collected for four quarters to investigate seasonal variation for a 12-month period.	04/21/94	—
IR	E-00004-01	Open	Describe the effects that a blockage in a surface drainage system component might have on the amount of water that infiltrates into the cover system.	04/29/94	—

Outstanding Items Report

Number	Responsible organization	Abstract	Due date
E-00001-01	U.S. Ecology	Provide additional information to clarify which agencies were involved in consultation.	03/13/94

Activity Report

Comm number	Seq number	Status	Activity description	Responsible organization	Due date	Completion date
S-00002-01	B122	Open	Administrative procedures will be developed for use by the licensee to alert radiation protection when an individual reaches 50% of the 10 CFR part 20 limits.	U.S. Ecology	05/15/94	—
SEC-001-01	B123	Open	Intrusion alarms will be added to all buildings.	U.S. Ecology	06/30/94	—

Ad Hoc Report

Number	Status	Abstract	Key words
S-00002-01	Pending	Administrative dose limits are set at 50% of the 10 CFR part 20 limits. Explain what action will be taken when an individual reaches an administrative limit.	Procedure, 10 CFR 20, Radiation, Radiation Protection, Dose
SEC-001-01	Pending	The high pressure sodium lights illuminating the operations and shop buildings are between the guard house and the disposal units, which do not have either illumination or intrusion alarms. Explain how the guards are to know if there is an intruder.	Security