Mr. Samuel Rousso , Director
for Program Management and Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy, RW 30
1000 Independence Avenue, S.W.
Washington, DC 20585

December 23, 1998

SUBJECT: MINUTES OF THE SEPTEMBER 17, 1998, TECHNICAL EXCHANGE ON THE TECHNICAL GUIDANCE DOCUMENT

Dear Mr. Rousso:
On September 17, 1998, a technical exchange was held on the Technical Guidance Document between the staff of the U.S. Nuclear Regulatory Commission (NRC) and representatives of the U.S. Department of Energy (DOE). The meeting summary of the Technical Guidance Document Technical Exchange is comprised of the meeting agenda (Enclosure 1), the attendance list (Enclosure 2), and the presenter's slides (Enclosure 3). The meeting was a video conference between DOE headquarters in Washington, D.C.; NRC headquarters in Rockville, Maryland; DOE office in Las Vegas, Nevada; and the Center for Nuclear Waste Regulatory Analysis in San Antonio, Texas. The meeting was also attended by representatives of the State of Nevada; Nye and Clark County, Nevada; United States Nuclear Waste Technical Review Board (NWTRB); and DOE contractors.

If you have any questions regarding this letter, please contact Sandra L. Wastler of my staff. Ms. Wastler can be reached at (301) 415-6724.

Sincerely,

[Original signed by:]

Michael J. Bell, Chief
Performance Assessment and HLW
Integration Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosures: As stated

cc:
R. Loux, State of Nevada
L. Barrett, DOE/Wash, DC
S. Hanauer, DOE/Wash, DC
S. Rousso, DOE/Wash, DC
R. Dyer, YMPO
R. Clark, YMPO
B. Price, Nevada Legislative Committee
D. Bechtel, Clark County, NV
J. Regan, Churchill County, NV
L. Fiorenzi, Eureka County, NV
T. Manzini, Lander County, NV
J. Wallis, Mineral County, NV
M. Murphy, Nye County, NV
W. Cameron, White Pine County, NV
W. Barnard, NWTRB
A. Mitre, NIEC
J. Lyznicky, AMA
F. Marcinowski, EPA
S. Kraft, NEI
S. Frishman, State of Nevada
A. Brownstein, DOE/Wash, DC
C. Einberg, DOE/Wash, DC
N. Slater, DOE/Wash, DC
S. Brocoum, YMPO
A. Gil, YMPO
J. Meder, Nevada Legislative Counsel Bureau
E. von Tiesenhousen, Clark County, NV
S. Dudley, Esmeralda County, NV
B. Mettam, Inyo County, CA
E. Culverwell, Lincoln County, NV
L. Bradshaw, Nye County, NV
N. Stellavato, Nye County, NV
D. Weigel, GAO
R. Holden, NCAI
R. Arnold, Pahrump County, NV
R. Clark, EPA
R. Anderson, NEI
J. Kessler, EPRI

| DISTRIBUTION: | Central File | DWM r/f | NMSSr/f | ACNW |
|---|---|---|---|---|
| PAHL r/f | OSR | LSS | PUBLIC | OCA |
| OPA | JGreeves | MWeber | NStablein | Wreamer |
| Dbrooks | Rweller | Kmcconnell | Jpohle | Mnataraja |
| Bleslie | Jbradbury | Jdavis | Jtrapp | Pjustus |
| Ncoleman | Jfirth | TMcCartin | | |

DOC NAME: S:\DWM\PAHL\SLW\summary2.wpd

| OFC | PAHL | | PAHL | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NAME | SWastler/kv | | MBell | | | | | | | |
| DATE | 12/23/98 | | 12/23/98 | | | | | | | |

OFFICIAL RECORD COPY

9901190299 981223
PDR WASTE
WM-11 PDR

Distribution for letter from M. Bell to S. Rousso dated: December 23, 1998

cc: R. Loux, State of Nevada
S. Frishman, State of Nevada
L. Barrett, DOE/Wash, DC
A. Brownstein, DOE/Wash, DC
S. Hanauer, DOE/Wash, DC
C. Einberg, DOE/Wash, DC
N. Slater, DOE/Wash, DC
R. Dyer, YMPO
S. Brocoum, YMPO
R. Clark, YMPO
A. Gil, YMPO
B. Price, Nevada Legislative Committee
J. Meder, Nevada Legislative Counsel Bureau
D. Bechtel, Clark County, NV
E. von Tiesenhousen, Clark County, NV
J. Regan, Churchill County, NV
S. Dudley, Esmeralda County, NV
L. Fiorenzi, Eureka County, NV
B. Mettam, Inyo County, CA
T. Manzini, Lander County, NV
E. Culverwell, Lincoln County, NV
J. Wallis, Mineral County, NV
L. Bradshaw, Nye County, NV
M. Murphy, Nye County, NV
N. Stellavato, Nye County, NV
W. Cameron, White Pine County, NV
D. Weigel, GAO
W. Barnard, NWTRB
R. Holden, NCAI
A. Mitre, NIEC
R. Arnold, Pahrump County, NV
J. Lyznicky, AMA
R. Clark, EPA
F. Marcinowski, EPA
R. Anderson, NEI
S. Kraft, NEI
J. Kessler, EPRI

**Technical Exchange**

Technical Guidance Document for License Application

September 17, 1998

| | | |
|---|---|---|
| 1:00 pm | Opening Remarks | All |
| | Introduction | DOE |
| | Role of Technical Guidance Document in License Application | DOE |
| | Consideration of Part 63 in Technical Guidance Document Development | DOE |
| 3:00 pm | Break | |
| | Organization and Content in Technical Guidance Document | DOE |
| | NRC Perspectives | NRC |
| | Concluding Discussion | All |
| 5:00 pm | Adjourn | |

Enclosure 1

**ATTENDANCE**
**Technical Guidance Document Technical Exchange**
**NRC Videoconference T2B3**
**September 17, 1998**

| Name | Affiliation | Address | E-Mail Address | Telephone Number |
|---|---|---|---|---|
| Sandra Wastler | NRC | | SLW1@nrc.gov | 415-6724 |
| Jim York | Booz, Allen, Hamilton | Washington, DC | jim_york@rw.doe.gov | 202-626-1067 |
| Douglas Franks | M&O | | | 702-295-6595 |
| Krishna Iygnrar | M&O | Las Vegas, NV | | 702-295-4517 |
| Steven Kraft | NEI | 1776 I Street NW Washington, DC | spk@nei.org | 202-739-8116 |
| Ralph Anderson | NEI | 1776 I Street NW Washington, DC | rla@nei.org | 202-739-8111 |
| Tim McCartin | NRC | Washington, DC | TJM3@nrc.gov | 301-415-6681 |
| King Stablein | NRC | Washington, DC | NKS@nrc.gov | 301-415-7282 |
| Kathryn Knapp | M7O [illegible] | | | 702-295-4724 |
| April Gil | DOE/[illegible]P/AMP | | | 702-794-5578 |
| Bill Belke | NRC | | | 702-794-5047 |
| E. Von Tiesenh[illegible]en | Clark County | | | 702-455-5184 |
| Steve Frishman | NV NWPO | | | 702-687-3744 |
| Judy Treichel | NNWTF | | | 702-248-1127 |
| Roxanna VanDillen | M&O WPO | | | 702-295-4596 |
| Mal Murphy | Nye County | | | 360-945-5610 |
| Chad Glenn | NRC | | | 702-794-5047 |
| Tim Gunter | YMSCO/AML | | | 702-794-1343 |
| R. Gamble | MTS | | | 702-794-1440 |
| English Pearcy | CNWRA | | | 210-522-5540 |

| ATTENDANCE<br>Technical Guidance Document Technical Exchange<br>NRC Videoconference T2B3<br>September 17, 1998 | | | | |
|---|---|---|---|---|
| Ray Wallace | USGS | Reston, VA | Ray.Wallace@rw.doe.gov | 202-586-1244 |
| Dealis W. Gwyn | M&O SE&I | | | 702-295-3964 |
| RD Snell | M&O/DOE | Las Vegas, NV | | 702-295-5601 |
| Victor Dulock | M&O SE&I | | | 702-295-4370 |
| Edward Cikanek | M&O EBSO | | | 702-295-4439 |
| Marshall David | Scientech | Washington, DC | MDAVID@scientech.com | 301-258-1868 |
| Chris Binzer | Robinson/Seidler | | | 870-4043 |
| Dennis Bechtel | Clark Co | | | 702-455-5178 |
| Bernard Vema | DOE | | | 702-794-1374 |
| Mike Scott | DOE/M&O | Las Vegas, NM | michael_scott@ymp.gov | 702-295-5556 |
| James Clark | OQA/QATSS | | | 702-295-1629 |
| Dennis Richardson | R&L | | | 702-295-4392 |
| John Trapp | NRC | Washington, DC | jst@nrc.gov | 301-415-8063 |
| Mysore Nataraja | NRC | Washington, DC | msn1@nrc.gov | 301-415-6695 |
| Manny Comar | NRC | Washington, DC | mmc1@nrc.gov | 301-415-6074 |
| Jim Linhart | NSNFP | | | 702-295-0366 |
| NSridhar | CNWRA | San Antonio, TX | | 210-522-5538 |
| WPatrick | CNWRA | San Antonio, TX | | 210-522-5158 |
| GWittmeyer | CNWRA | San Antonio, TX | | 210-522-5082 |
| Joe Price | DOE | | | 702-794-1441 |
| Woody Stroupe | M&O | | | 702-295-3444 |
| MMiklin | CNWRA | San Antonio, TX | | 210-522-5207 |
| AChowdhury | CNWRA | San Antonio, TX | | (210) 522-5151 |

| ATTENDANCE<br>Technical Guidance Document Technical Exchange<br>NRC Videoconference T2B3<br>September 17, 1998 | | | | |
|---|---|---|---|---|
| DTurner | CNWRA | San Antonio, TX | | (210) 522-2139 |
| Carol Hanlon | DOE | Las Vegas, NV | | (702) 794-1324 |
| Mike Lugo | M&O/TRW | | | (702) 794-4761 |
| Buck Ibrahim | NRC | | AKI@nrc.gov | (301) 415-6651 |
| Jean Yonkers | M&O | Las Vegas, NV | | (702) 794-5497 |
| Giorgio Gnugnoli | NRC | | GNG@nrc.gov | (301) 415-7135 |
| Chris Einberg | DOE | Washington, DC | | (202) 586-8869 |
| Homi Minwalla | M&O SE/I | | | (702) 295-4995 |
| Ken Ashe | M&O Licensing | | | (702) 295-3964 |

YUCCA
MOUNTAIN
PROJECT

Studies

# Introduction

Presented to:
DOE/NRC Technical Exchange on
the Technical Guidance Document for License Application Preparation

Presented by:
Tim Gunter
Licensing Engineer, License Application Team
Yucca Mountain Site Characterization Office

September 17, 1998

U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

# Purpose of the Technical Exchange

- Discuss the Technical Guidance Document for License Application Preparation (TGD)
  - DOE's principal vehicle for building on NRC guidance for development of the License Application (LA)
- Describe TGD development process
- Describe how the NRC's Key Technical Issues (KTI) are being integrated into the TGD

# Purposes of Technical Exchange (continued)

- Address potential impacts of 10 CFR 63 on TGD content and schedule
- Describe planned organization of TGD and LA
- Discuss TGD content
- Seek NRC feedback on DOE's approach

# Technical Exchange Agenda

## Technical Guidance Document for License Application

## September 17, 1998

| | | |
|---|---|---|
| 1:00 pm | Opening Remarks | All |
| | Introduction | Tim Gunter |
| | Role of Technical Guidance Document in License Application | April Gil |
| | Consideration of Part 63 in Technical Guidance Document Development | Mike Lugo |
| 3:00 | Break | |
| | Organization and Content of Technical Guidance Document | Mike Scott |
| | NRC Perspectives | NRC |
| | Concluding Discussions | All |
| 5:00 | Adjourn | |

YUCCA
MOUNTAIN
PROJECT

Studies

# Role of the Technical Guidance Document in the License Application

Presented to:
DOE/NRC Technical Exchange on
the Technical Guidance Document for License Application Preparation

Presented by:
April V. Gil
License Application Team Lead
Yucca Mountain Site Characterization Office

September 17, 1998

U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

# Purposes of the TGD

- Provide content and organization guidance to LA authors
  - LA development schedule requires guidance to authors
- Serve as communication tool to ensure LA will be as complete as possible at time of docketing

# Scope of the TGD

- TGD provides guidance for LA authors on content and layout of the LA
- Intent is to provide similar information to that provided in an NRC Standard Review Plan, but intended for author rather than reviewer
- TGD is a guidance and not a requirements document

# Sources of Guidance for LA Authors

- TGD
  - Layout
  - Content
  - Acceptance criteria
  - Writers Guide (Appendix)
- LA Management Plan (Mechanics of development process)
- Technical sources (by reference in TGD)

# TGD Development Approach

- Using NRC standard review plans as models
  - NUREG-1567: Standard Review Plan for Spent Fuel Dry Storage Facilities (draft)
  - NUREG-1536: Standard Review Plan for Dry Cask Storage Systems
- Unlike standard review plans, TGD audience is LA author
  - Language differs, but layout is similar

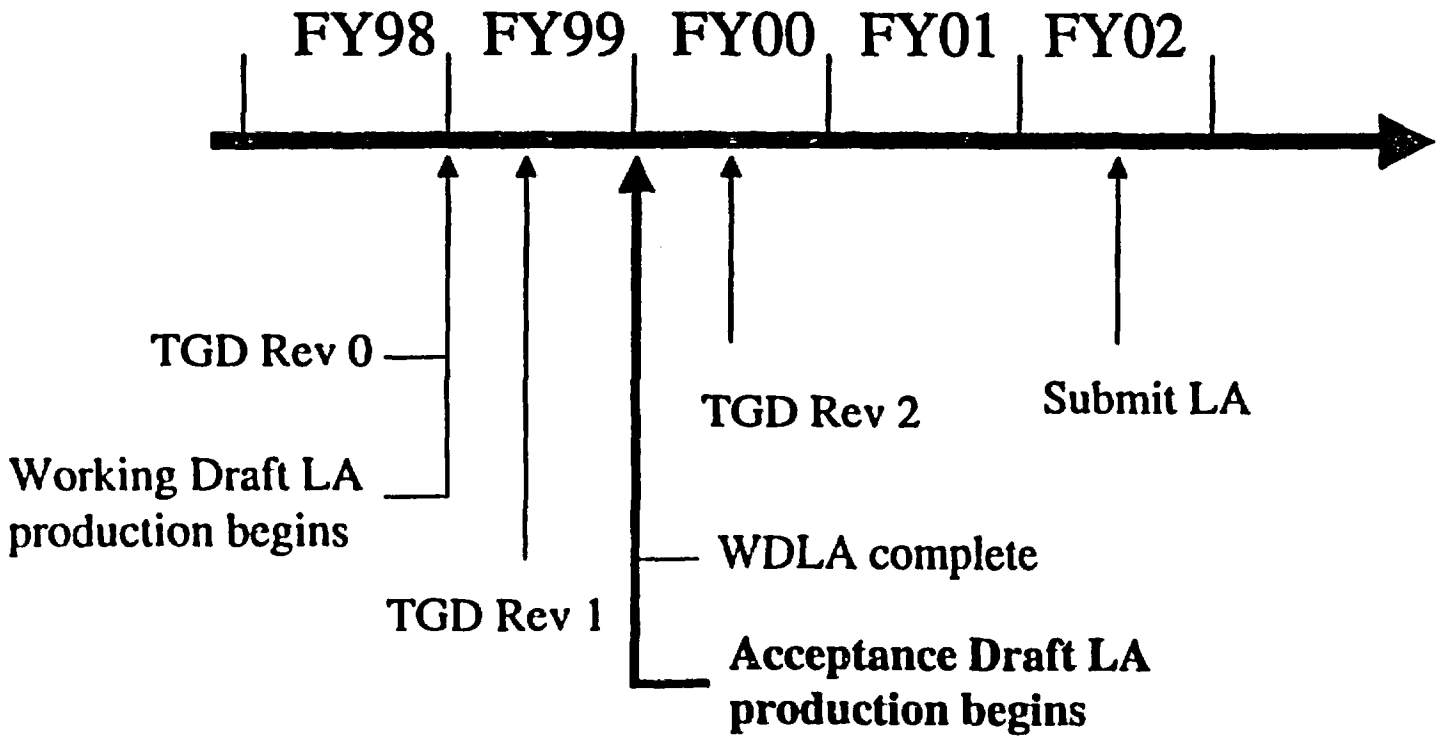
# TGD Development Approach (continued)

- High priority in determining where NRC guidance and industry codes and standards are potentially useful or applicable
- Although previous guidance documents are no longer current, technical criteria have been used where considered likely to be appropriate (e.g., LARP and FCRG)
- TGD contains placeholders for regulatory guidance and industry standards not yet analyzed

# TGD Development Schedule

- Rev 0 approved September 1998
- Subsequent revisions will incorporate:
  - Additional regulatory guidance as it becomes available
  - Industry standards to the extent feasible and appropriate
  - Part 63
- Final Part 63 in summer 1999 essential to timely development of TGD and LA

# TGD Development Schedule (continued)



# Key Technical Issues

- DOE recognizes role of KTIs in helping define resolution process for important issues
- KTI acceptance criteria being incorporated into TGD as questions resolved or criteria clarified
- Incorporation of acceptance criteria in TGD
  - Rev 0 incorporates acceptance criteria about which DOE has no questions
  - Subsequent revisions will incorporate additional acceptance criteria after more comprehensive review and clarification if needed

# Summary

- DOE plans to use TGD to develop LA and make use of regulatory and industry precedents and guidance (including KTIs) to extent feasible and appropriate
- Close coordination with content of 10 CFR 63 and IRSR acceptance criteria critical to ensure TGD contains correct and adequate criteria for LA development
- Feedback on approach presented today requested

YUCCA
MOUNTAIN
PROJECT

Studies

# Consideration of 10 CFR Part 63 Rule in Technical Guidance Document Development

Presented to:
DOE/NRC Technical Exchange on
the Technical Guidance Document for License Application Preparation

Presented by:
Miguel A. Lugo
Licensing Manager
CRWMS Management & Operating Contractor

September 17, 1998

U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

# Purpose of Presentation

- Describe general approach taken to address 10 CFR Part 63 rule in TGD
- Discuss assumptions about 10 CFR Part 63 changes reflected in TGD Rev 0

# Consideration of Part 63 in TGD

- Added a note to the beginning of each TGD Rev 0 chapter
  - Expected changes to regulations applicable to each chapter
- Subsequent revisions of the TGD will address Part 63 rule, as information becomes available

# Assumed Changes Noted in TGD Rev 0

## Postclosure Criteria

- **Emphasis placed on overall repository performance and showing contribution of individual barriers**
  - **Noted upcoming modification to compliance with §60.112 (total system performance objective)**
  - **Deleted explicit compliance with §60.113 (subsystem performance objectives)**
  - **Deleted explicit compliance with siting criteria §60.122 (siting criteria)**
  - **Deleted explicit compliance with design criteria in Subpart E**

# Assumed Changes Noted in TGD Rev 0 (continued)

## Postclosure Criteria (cont'd)

- The following potential changes were not explicitly addressed:
  - Performance assessment methodology
  - Reference biosphere and critical group
  - Stylized human intrusion analysis

# Assumed Changes Noted in TGD Rev 0 (continued)

Preclosure Criteria

- Emphasis placed on compliance with overall performance (normal operations and accident conditions)
  - Deleted explicit compliance with preclosure design criteria in §60.130 thru §60.133
- Potential changes in emergency planning not explicitly addressed
  - TGD Rev 0 already invokes guidance from other NRC regulations/regulatory guides

# Assumed Changes Noted in TGD Rev 0 (continued)

## Other Provisions

- Deleted direct references to NUREG-1323 (LARP) and DG-3003 (FCRG)
  - Retained technical discussions as appropriate
- No changes assumed to administrative requirements

# Summary

- Part 63 is being and will be implemented in TGD and LA as it becomes available
- The Working Draft LA will reflect DOE's best understanding of Part 63, based on the proposed rule

YUCCA
MOUNTAIN
PROJECT

Studies

# Organization and Content of the Technical Guidance Document

Presented to:
DOE-NRC Technical Exchange on the Technical Guidance Document for License Application Preparation

Presented by:
Michael Scott
Licensing Supervisor
CRWMS Management & Operating Contractor

September 17, 1998

U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

# Purpose of Presentation

- Provide overview of organization and content of TGD chapters
- Discuss guidance related to codes, standards, and regulatory guidance
- Explain how KTI/IRSR acceptance criteria are addressed

# TGD/LA Organization

- TGD chapter organization corresponds to planned LA chapter organization
- LA organization based on:
  - Project Integrated Safety Assessment format
  - LARP/FCRG
  - Regulatory Guide 1.70, Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants
- Format chosen is the one DOE believes most clearly presents the information needed to support the safety case

# TGD/LA Organization (continued)

- In addition to chapter layout corresponding to LA layout, TGD contains:
  - Introduction that explains how to use the document and discusses issues pertinent to TGD and LA development
  - Appendix showing cross-walk between current high-level waste regulations and TGD/LA sections
  - Appendix containing a writers' guide for LA

# Overall LA Organization

- Per 10 CFR 60, LA includes general information and safety analysis report (SAR)
- Chapter 1 contains general information required by 10 CFR 60
- Chapters 2 through 14 comprise the SAR

# LA Chapter Layout

**Chapter 1**
Intro/General Information
**Chapter 2**
Conformance with Design Criteria
**Chapter 3**
Site Characteristics
**Chapter 4**
Repository Design
**Chapter 5**
Waste Package Design
**Chapter 6**
Engineered Barrier System
(Excluding Waste Package Design)
**Chapter 7**
Preclosure Radiological
Safety Assessment

**Chapter 8**
Performance of Repository
After Permanent Closure
**Chapter 9**
Radioactive Waste Management
**Chapter 10**
Radiation Protection
**Chapter 11**
Conduct of Operations
and Related Topics
**Chapter 12**
Performance Confirmation
**Chapter 13**
Land Ownership and Control
**Chapter 14**
Quality Assurance

# LA Chapter Layout (continued)

- Some topics will have brief discussions in the LA with more detail in separate documents, consistent with industry practice
  - Quality assurance
  - Security and safeguards
  - Emergency plan
  - Proposed technical specifications

# Chapter 1 - Introduction and General Information

- Contains general information per 10 CFR 60.21
  - General description
  - Material incorporated by reference
  - Schedules
  - Description of site characterization work and changes from Site Characterization Plan
  - Security and safeguards (summary)
  - Agents and contractors
  - Statements of compliance

# Chapter 2 - Conformance With Design Criteria

- **Chapter 2:**
  - **Ties together information from other design chapters**
  - **Relates repository design to technical criteria in 10CFR60 Subparts E and F**
  - **Demonstrates how the design supports the postclosure safety case**
  - **Identifies principal codes, standards, and regulatory guidance applicable to repository design and construction**

# Chapter 2 (continued)

- Chapter 2 (continued)-
  - Presents the classification methodology for structures, systems, and components and summarizes those important to radiological safety and to waste isolation
  - Summarizes how major design features comply with radiation safety and waste isolation criteria
- Recognize design criteria will likely not be included in Part 63
- Chapter 2 will remain a "rollup" of compliance information to show that the facility design supports meeting repository performance objectives

# Chapter 3 - Site Characteristics

- Presents site description in terms of geology, hydrology, geochemistry, and other topics
- Basic layout similar to LARP but will not discuss compliance with site-related subsystem performance objectives
- Site Description Document will be primary reference
- Chapter will focus directly on site description information to support licensing

# Chapter 4 - Repository Design

- Includes surface and subsurface repository design excluding the engineered barrier system
- Provides for each system:
  - Design bases
  - Design description
  - Design evaluation

# Chapter 5 - Waste Package Design

- Describes waste forms
- Describes waste package
  - General description
  - Material selection
  - Thermal design
  - Criticality design
  - Structural design
  - Shielding design
- For each component, provides design bases, design description, and design evaluation

# Chapter 6 - Engineered Barrier System (Excluding the Waste Package) Design

- Describes engineered barrier system (EBS) excluding waste package (i.e., describes the underground facility)
- Discusses the EBS environment
- For each EBS component, provides:
  - Design bases
  - Design description
  - Design evaluation

# Chapter 7 - Preclosure Radiological Safety Assessment

- Describes:
  - Approach
  - Source term
  - Design Basis Event definition
  - Potential releases
  - Atmospheric dispersion
  - Dose calculations

# Chapter 8 - Performance of the Repository After Permanent Closure

- Describes:
  - Approach to performance assessment (PA)
  - Systems and subsystems input to the PA
  - Evaluation of undisturbed performance
  - Evaluation of disturbed performance

# Chapter 9 - Radioactive Waste Management

- Provides design bases, design description, and design evaluation for:
  - Liquid low-level waste management systems
  - Solid low-level waste management systems
  - Gaseous low-level waste management systems
  - Mixed waste management systems
- Describes source terms (low-level radioactive wastes of each type)

# Chapter 10 - Radiological Protection

- Describes:
  - Radiological protection program
  - ALARA design features
    - Shielding
    - Ventilation
    - Instrumentation
  - Dose assessments

# Chapter 11 - Conduct of Operations & Related Topics

- Chapter 11 contains various topics that do not clearly fall elsewhere. Discusses:
  - Facility operations, testing, maintenance, etc.
  - Organization and staffing
  - Administrative controls
  - Procedures
  - Records and reports
  - Training

# Chapter 11 (continued)

- **Chapter 11 discusses: (continued)**
  - **Site markers**
  - **Operating controls and limits**
  - **Emergency planning (reference)**
  - **Proposed technical specifications (reference)**
  - **Requirements for additional technical information (10CFR60.21(c)(14))**

# Chapter 12 - Performance Confirmation

- Describes:
  - Performance confirmation plan
  - Performance confirmation for:
    - Natural barriers
    - Repository structures, systems, and components
    - Waste package and EBS
  - Radiation protection for above activities
  - Analysis of changes from performance confirmation baseline

# Chapter 13 - Land Ownership and Control

- **Discusses:**
  - **Acquisition of the controlled area**
  - **Plans for regulating land use outside the controlled area**
  - **Access controls for the repository**

# Chapter 14 - Quality Assurance

- Chapter will be brief, consistent with industry practice
- Refers to Quality Assurance Requirements and Description (QARD) for details on QA program

# Basic TGD Format

- Each chapter contains five sections, similar to layout of NUREG-1567, Standard Review Plan for Spent Fuel Dry Storage Facilities (draft):
  - I: Objective
  - II: Guidance Topics
  - III: Regulatory Requirements
  - IV: Acceptance Criteria and Guidance
  - V: References

# TGD Guidance

- TGD tells author what information and analyses need to be presented in the LA and what documents with which to state compliance
- Provides acceptance criteria based on regulatory guidance (e.g., IRSRs, LARP where considered appropriate)
- Similar level of detail to draft NUREG-1567
- Prefer to use existing guidance and standards where appropriate and applicable to reduce burden on applicant and regulator and to take advantage of proven technology

# Level of Detail

- TGD Introduction contains general guidance
  - Level of detail is that needed to present safety case and support NRC's "reasonable assurance" finding
  - Site description: More detail than for analogous topics in site description in power plant final safety analysis report (FSAR)
  - Design
    - Important to safety or waste isolation, unprecedented: Similar to design detail in power plant FSAR
    - Important to safety, precedented: Similar or greater detail than for similar topics in preliminary power plant SAR
    - Not important to safety: Much lower level of detail

# Level of Detail (continued)

  - Performance assessment: No SAR analog and crucial to assessing acceptability of repository; substantial detail
  - Accident analysis: Similar to FSAR analyses
- TGD does not contain detailed, prescriptive guidance on level of detail needed for LA
  - DOE's Licensing staff will provide guidance to technical leads and ensure detail needed to support NRC's reasonable assurance determination is provided
  - Interactions with NRC during LA development and Project's QA classification process will also help reach correct level of detail

# Sources of Guidance

- NRC Standard Review Plans
- NRC Regulatory Guides
- Industry codes and standards
- Issue Resolution Status Reports
- NUREGs
- Staff Technical Positions

# Identification of Codes, Standards, and Guidance

- TGD Rev 0 provides guidance for use of codes and standards, as well as NRC guidance
  - Relatively detailed, firm guidance
  - "Placeholders" (applicability not fully determined)
- Applicability being determined by systematic, documented review of potential sources
- Final form of the direction to be provided in the TGD is under evaluation

# Treatment of NRC Key Technical Issues

- TGD (Section IV of each chapter) shows where in LA to address each IRSR acceptance criterion
- Requires discussion in LA of:
  - NRC perspective on subissue status
  - DOE perspective
  - Demonstration that acceptance criteria are met
  - Description of information to be obtained and provided after LA submittal if any aspects not fully resolved

# Summary

- TGD provides relatively detailed guidance to LA authors based on analysis of available regulatory and industry information
- LA layout intended to most clearly present information needed to support licensing case
- TGD layout corresponds to LA layout
- TGD addresses NRC KTIs at the subissue and acceptance criterion level