



United States Nuclear Regulatory Commission

Scoping Meeting for the Standard Review Plan for Waste Determination Activities

Facilitator: Chip Cameron

November 10, 2005



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Today's Meeting

- The purpose of today's meeting is to gather public input on the scope of the Standard Review Plan (SRP) for waste determination activities conducted by the NRC staff
- The NRC staff is in "listening" mode and wants to hear everyone's comments
- The comments should remain focused on the topic of the scope of the SRP



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Scoping Meeting for the Standard Review Plan for Waste Determination Activities

*Larry W. Camper
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November 10, 2005



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Overview of Meeting

- Purpose
- Background
- Overview of Standard Review Plan Outline
- Public Comment Period



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Purpose

Obtain input from stakeholders on the scope of a Standard Review Plan for NRC's waste determination activities



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Purpose (cont'd)

- Legislation enacted in October 2004 gave the NRC new responsibilities with respect to waste determinations conducted by DOE
- NRC is developing a SRP to guide its technical activities
- SRP development is in its initial stages
- The NRC is here to listen to input from participants. The NRC values public input



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SRP Background and Outline Overview

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Overview

- Background of Incidental Waste
- Legislation
- NRC Activities
- Overview of SRP Outline



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Concept of Incidental Waste

Management of waste can be based on the risk that the waste poses to human health and the environment, rather than the origin of the waste. For wastes that result from the reprocessing of spent fuel, some require disposal in a geologic repository while some do not.



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Incidental Waste Description

- Examples of potential waste-incidental-to-reprocessing (WIR) are high-level waste (HLW) tank pumps, waste removed from tanks, or residual waste remaining in tanks
- WIR is not considered to be HLW, but instead is low-level waste (LLW) or transuranic (TRU) waste
- Potential WIR is located at Hanford, Idaho National Laboratory (INL), Savannah River Site (SRS), and West Valley



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WIR Determination Criteria

- In 1993, the original three WIR criteria were in a Denial of a Petition for Rulemaking and forwarded by letter to DOE:
 1. Waste processed to remove key radionuclides to the maximum extent technically and economically practical
 2. Waste incorporated into a solid physical form at concentrations not exceeding Class C concentrations
 3. Waste managed so that safety requirements comparable to the performance objectives in 10 CFR Part 61, Subpart C, are satisfied
- In 1999, DOE included similar criteria in its radioactive waste management program (DOE Order 435.1)



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WIR Determination Criteria (cont'd)

- In 2000, during a WIR review for SRS, the NRC dropped the second criterion regarding concentration, because the Commissioners deemed concentration to not be a direct measure of risk
- In 2002, only two criteria were in NRC's West Valley Policy Statement
- In 2004, new legislation was enacted that set waste criteria for South Carolina and Idaho



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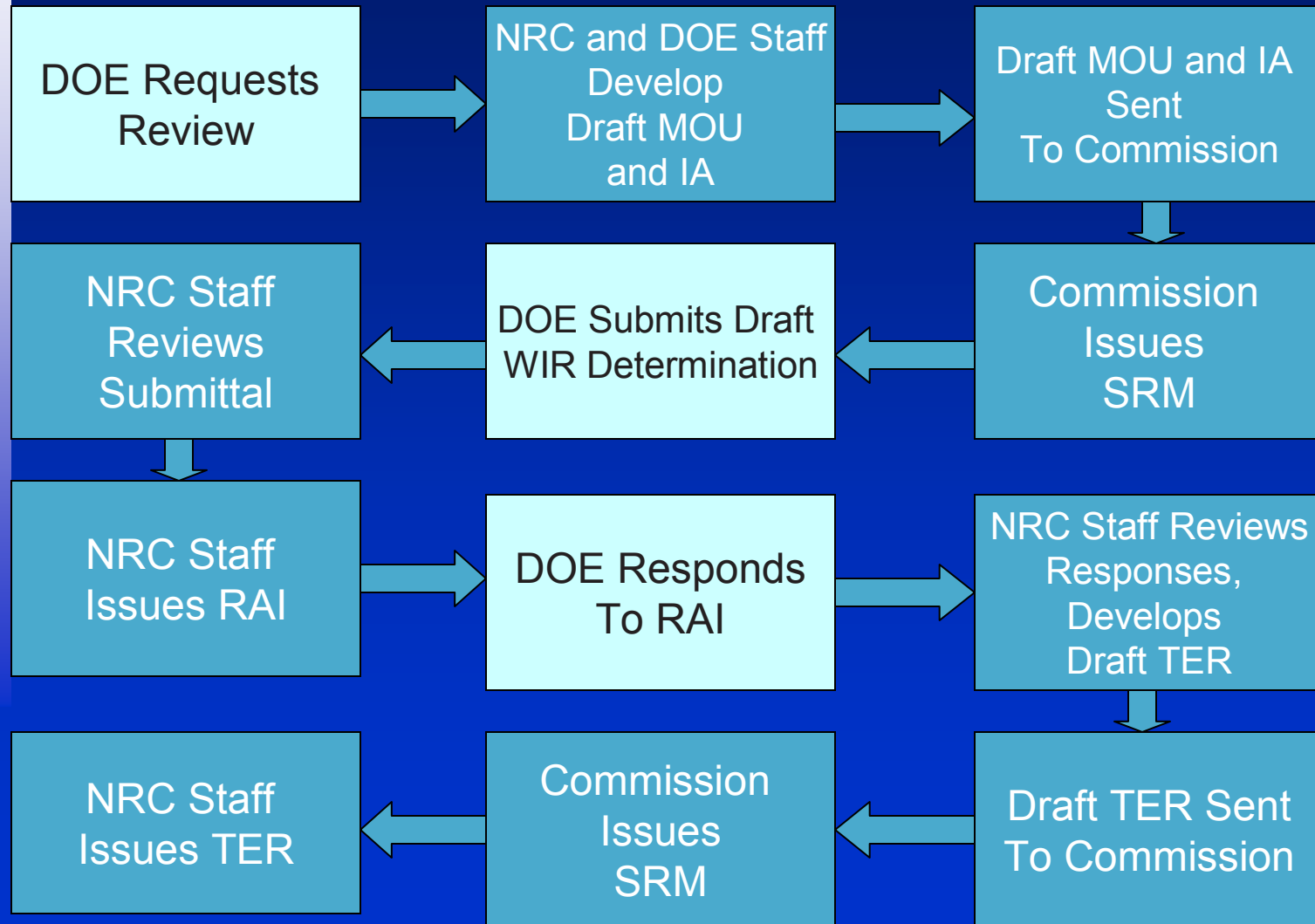
NRC Involvement in WIR

- In the past, DOE has asked NRC to provide technical advice and consultation on its methodology and conclusions of WIR determinations
- WIR determinations involve demonstrating compliance with the WIR criteria, and usually includes a performance assessment (PA)
- NRC assessed DOE WIR determinations for soundness of technical assumptions, analysis, and conclusions
- NRC has completed reviews of WIR determinations for Hanford (1997), SRS (2000), and INL (2002 and 2003)
- NRC reviews generally concluded that DOE methodologies were protective of public health and safety, and offered recommendations for improvement



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Major Steps of Past NRC Reviews





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Legislation

- South Carolina Senator Graham introduced legislative language that would provide for non-HLW determinations at SRS
- NRC responded to letters from Senators Inhofe and Jeffords requesting our views
- In October 2004, the President signed the Ronald W. Reagan National Defense Authorization Act for FY 2005



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National Defense Authorization Act

- DOE must consult with NRC on non-HLW determinations for South Carolina and Idaho
- The Act sets the criteria to be used in waste determinations, which are:
 - The waste does not require disposal in deep geologic repository
 - The waste has had highly radioactive radionuclides removed to the maximum extent practical, and
 - If the waste is Class C or less, its disposal must meet 10 CFR 61 Subpart C, or
 - If the waste exceeds Class C, its disposal must meet 10 CFR 61 Subpart C and DOE must consult with NRC on development of its disposal plans
- NRC must, in coordination with the State, monitor DOE's disposal actions to assess compliance with 10 CFR Part 61, Subpart C, and report any noncompliance to Congress, the State, and DOE



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National Defense Authorization Act (cont'd)

- The NDAA applies only to South Carolina and Idaho
- The NDAA does not apply to waste shipped out of those States
- DOE will reimburse NRC for its activities in FY05, and thereafter NRC must seek appropriations
- The NDAA also requires a one-year study by the National Academy of Sciences (NAS) of DOE's plans for the disposal of waste that exceeds Class C concentrations



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Status – Programmatic Activities

- SECY-05-0073 (April 28, 2005) described staff's plans for implementing the NDAA
- The Commission's Staff Requirements Memo approved the plans, with comments
- NMSS has established a LLW section within DWMEP
- DWMEP is beginning development of a Standard Review Plan



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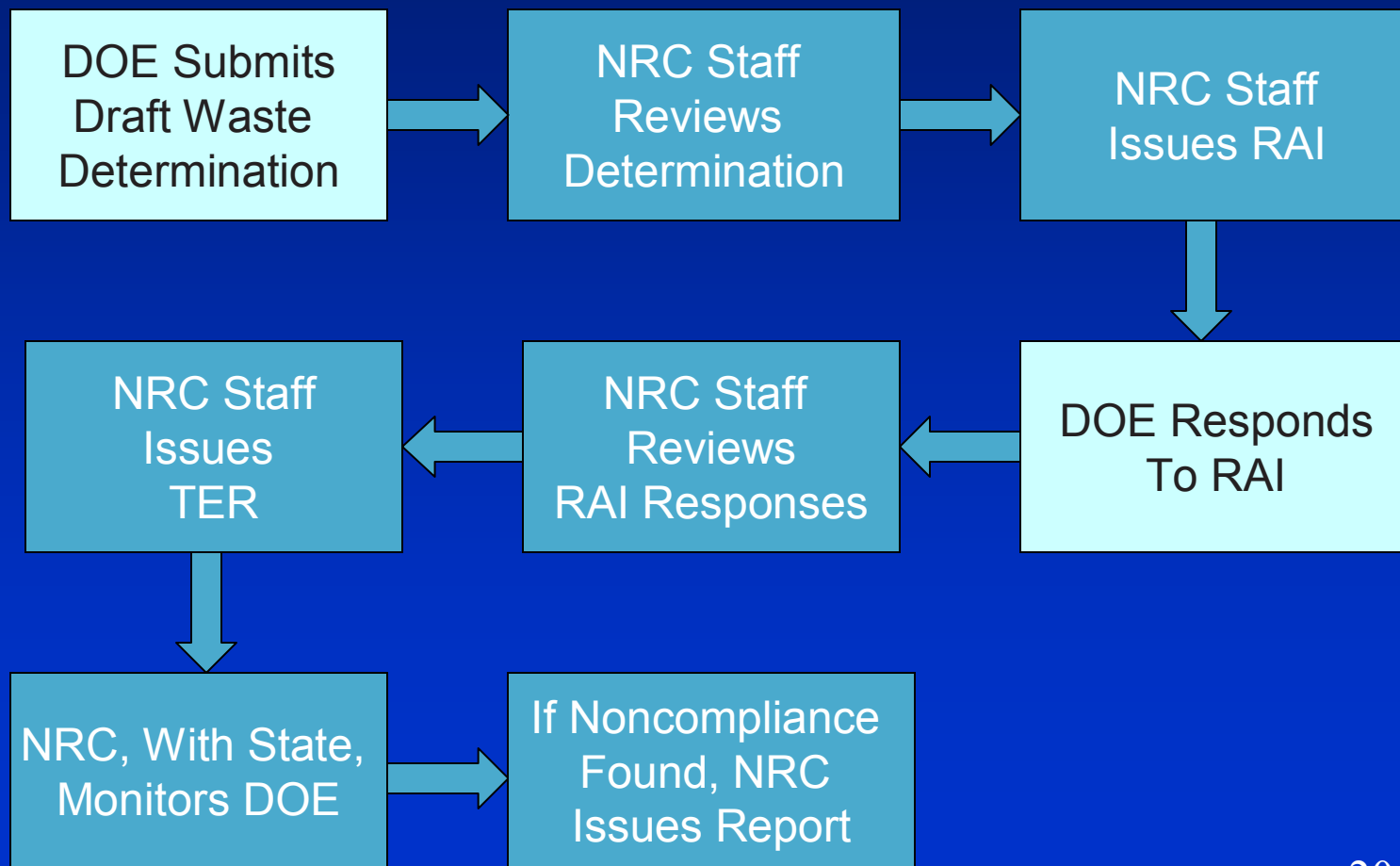
Status – Programmatic Activities (cont'd)

- Met with States to discuss roles and responsibilities
- Established Interagency Agreement with DOE for funding
- Drafting Memorandum of Understanding with DOE
- Continuing interactions with the NAS committee



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Major Steps of NRC Review





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Status – Technical Activities

- Savannah River Site:
 - DOE submitted draft determination for salt waste disposal in February 2005
 - DOE submitted draft determination for Tanks 18/19 in September 2005
- INL:
 - DOE submitted draft determination for tanks in September 2005
- Hanford:
 - Basis for Exception document for Tank C-106 submitted in October 2004
- West Valley:
 - Pre-decisional Draft Environmental Impact Statement submitted in August 2005



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Overview of SRP

- Will provide internal guidance for use by NRC staff
- Will describe the types of information that may be assessed by NRC staff during its activities
- Will provide consistency
- May be used by DOE



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SRP Activities and Current Schedule

- Review scoping comments and prepare draft SRP (Fall of 2005 – Spring of 2006)
- Brief Advisory Committee on Nuclear Waste (ACNW) on draft SRP (Spring of 2006)
- Issue draft SRP for public comment (Spring of 2006)
- Issue final SRP (Winter of 2006 – Spring of 2007)



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Draft Outline of SRP

Introduction

Background for the SRP

- How to Use the SRP
- Updating the SRP
- Structure of the SRP
- Introduction to Incidental Waste and NDAA
- Role of NRC in Waste Determinations

1.0 Site-Specific and General Information

- Site-Specific System Description
- Applicable Waste Criteria
- Prior Waste Determinations



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Draft Outline of SRP (cont'd)

- 2.0 Criteria for West Valley Policy Statement
 - Removal of Key Radionuclides
 - Compliance with Performance Objectives

- 3.0 Criteria for DOE Order 435.1
 - Removal of Key Radionuclides
 - Concentration Limits
 - Compliance with Performance Objectives



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Draft Outline of SRP (cont'd)

- 4.0 Criteria for NDAA
- Does Not Require Disposal in Geologic Repository
 - Removal of Highly Radioactive Radionuclides
 - Concentration Limits
 - Compliance with Performance Objectives



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Draft Outline of SRP (cont'd)

5.0 Modeling Approach

- Source Term Development
- Climate and Infiltration
- Engineered Barriers
- Hydrology
- Scenarios, Pathways, and Receptor Groups
- Conceptual Models
- Computer Codes/Models
- Input Parameter Values
- Evaluating Model Results
- ALARA Analyses



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Draft Outline of SRP (cont'd)

- 6.0 Protection of the General Population
- 7.0 Protection of Individuals from Inadvertent Intrusion
- 8.0 Protection of Individuals During Operations
- 9.0 Site Stability



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Draft Outline of SRP (cont'd)

10.0 Quality Assurance Program

11.0 Monitoring

- Monitoring Approach
- Demonstrating Compliance with Performance Objectives
- Noncompliance Reports



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Providing Comments on the SRP Scope

- Verbal comments can be provided today
- Written comments can be provided until November 25, 2005
- Please send comments to:

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References

- SECY-05-0073 on new NRC responsibilities (ML050490264)
- SRM for SECY-05-0073 (ML051810375)
- Commission vote sheets on SECY (ML051820120)
- Letters to Senators Inhofe and Jeffords (ML041340235, ML041600400)
- Docket numbers:
 - SRS: PROJ0734
 - INL: PROJ0735
 - Hanford: PROJ0736
 - West Valley: POOM-32