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Nuclear Regulatory Commission

Waste Incidental to Reprocessing Activities at the Savannah River Site

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Introduction

Common Phases - NDAA Consultation

- NRC Role
  - Scoping
  - Extensive interface with DOE (HQ/SR) and SCDHEC
  - Reviews basis documents and generates Request for Additional Information (RAI) to Assist with Development of Technical Evaluation Report (TER)
- DOE Role
  - Scoping
  - Develops Basis Documents Waste Determination (WD) and supporting Performance Assessment (PA)

Introduction

Common Phases - NDAA Monitoring

- NRC Develops Monitoring Plan
  - Updates occur as necessary
- Monitoring Activities Include
  - Onsite Observations
  - Technical Reviews
  - Performance Assessment Revision Reviews
- NRC Role
  - Onsite observation reports
  - Periodic Compliance Monitoring Reports

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Introduction

Performance Objectives

Subpart C—Performance Objectives

§ 61.40 General requirement.

§ 61.41 Protection of the general population from releases of radioactivity.

§ 61.44 Stability of the disposal site after closure.

§ 61.42 Protection of individuals from inadvertent intrusion.

§ 61.43 Protection of individuals during operations.

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Introduction

National Defense Authorization Act

This Act may be cited as the "Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005".

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50 USC 2601 **SEC. 3116. DEFENSE SITE ACCELERATION COMPLETION.**

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(b) MONITORING BY NUCLEAR REGULATORY COMMISSION.—(1) The Commission shall, in coordination with the covered State, monitor disposal actions taken by the Department of Energy pursuant to subparagraphs (A) and (B) of subsection (a)(3) for the purpose of assessing compliance with the performance objectives set out in subpart C of part 61 of title 10, Code of Federal Regulations.

Overview

NRC NDAA Activities at the Savannah River Site

- Saltstone Facility
- F-Tank Farm
- H-Tank Farm
- Future Plans

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WIR Timeline

Critical Dates

- Saltstone (1 WD Completed in 12/2005)
  - 2005 Technical Evaluation Report (ML053010225)
  - NRC Monitoring Plan (ML070730363)
- F-Tank Farm (1 WD in process)
  - 2009 NRC Comments on PA Review (ML090860435)
- NUREG-1854 - Staff Guidance on DOE Waste Determinations (ML072360184)

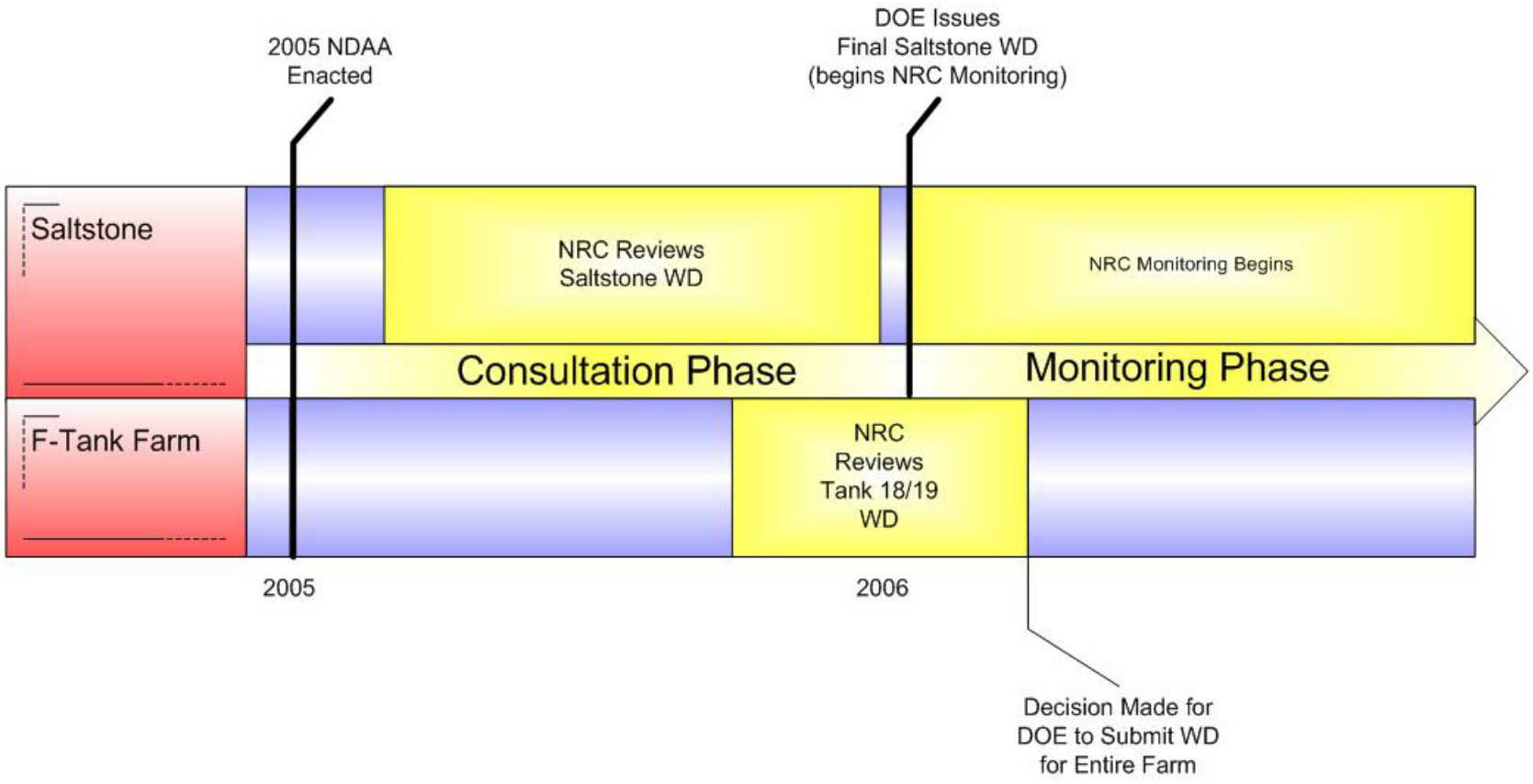
WIR Timeline

Annual Monitoring Reports

- 2007 NUREG-1911
  - ADAMS: ML082280145
  - Saltstone Monitoring Trip: 10/2007
- 2008 NUREG-1911, rev. 1
  - ADAMS: ML091400501
  - Saltstone Monitoring Trips: 03/2008, 07/2008
- 2009 NUREG-1911, rev. 2
  - ADAMS: ML101950390
  - Saltstone Monitoring Trips: 03/2009, 06/2009, 08/2009

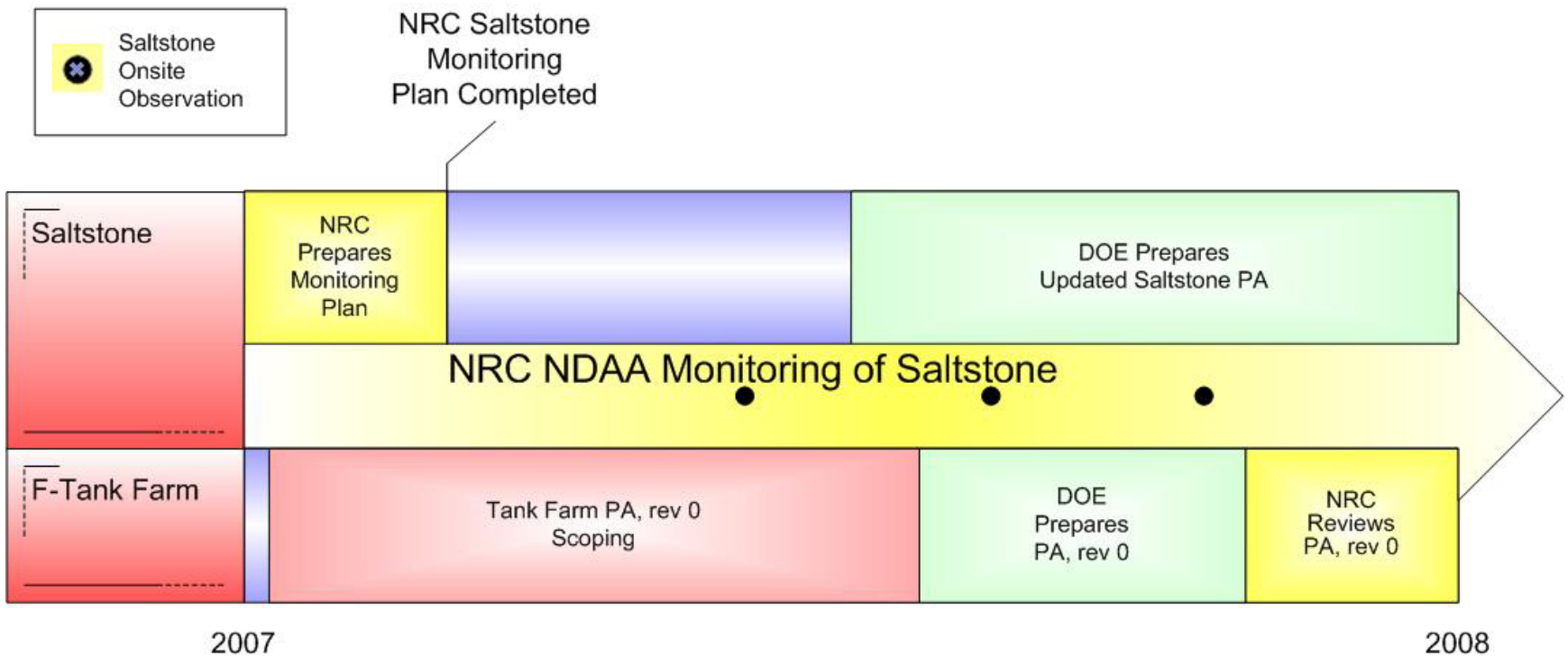
WIR Timeline

2005 – 2006



WIR Timeline

2007 – 2008



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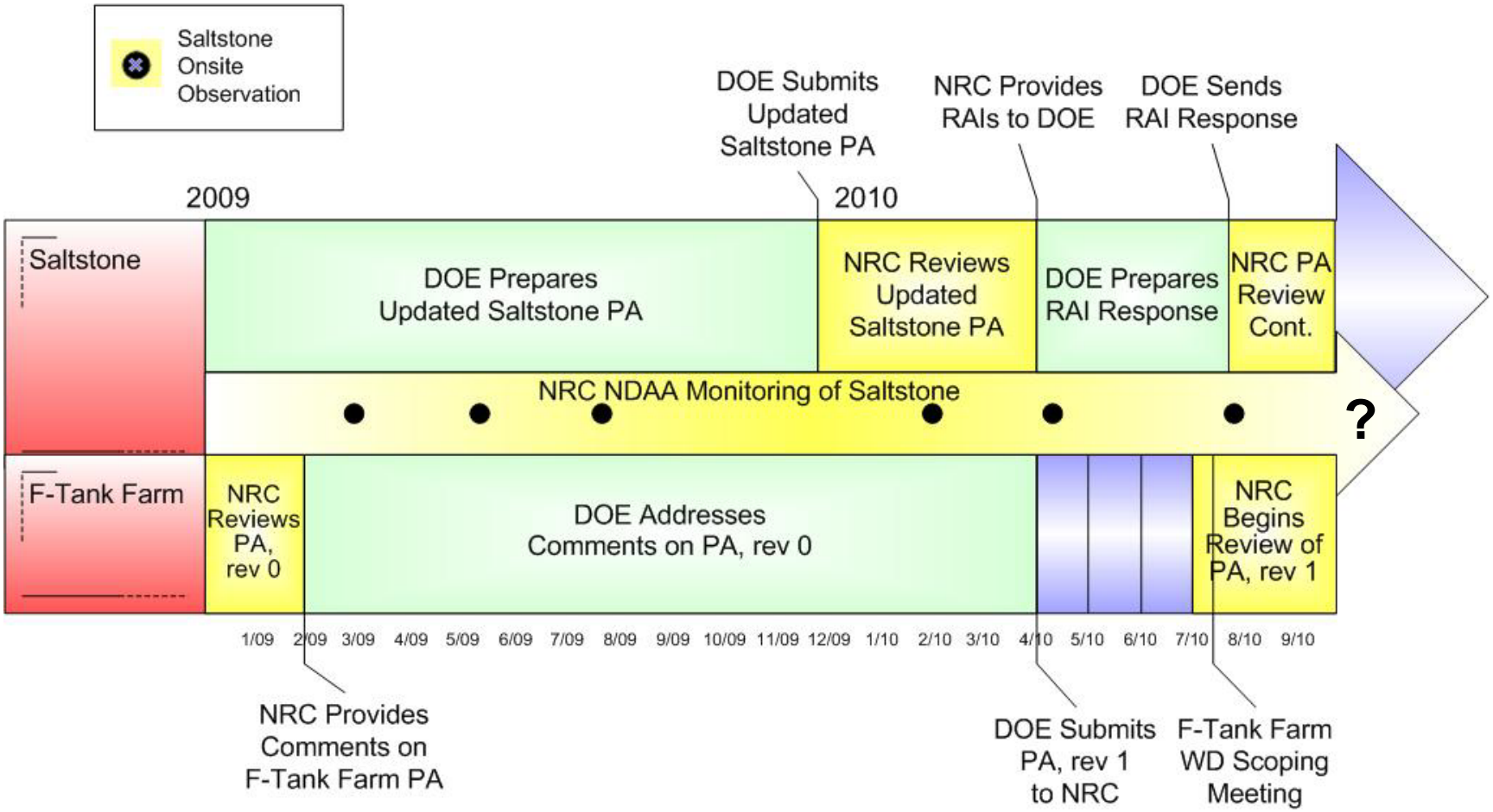
WIR Timeline

2009 – Present Day



Saltstone Facility

2009 NDAA Monitoring

- Calendar Year 2009 Activities
  - Completed 3 onsite observations
  - Completed 6 technical reviews
  - Began review of 2009 Saltstone PA
- Results
  - Started Year with two Open Issues (both still open)
  - Identified one new Open Issue (still open)

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Saltstone Facility

Recent NDAA Monitoring Activities

- Calendar Year 2010 Activities
  - February 2010
  - April 2010
  - July 2010
- Continuing review of Updated PA
  - Review began in November 2009
  - Review will be documented in revised technical evaluation report expected to be issued in February 2011

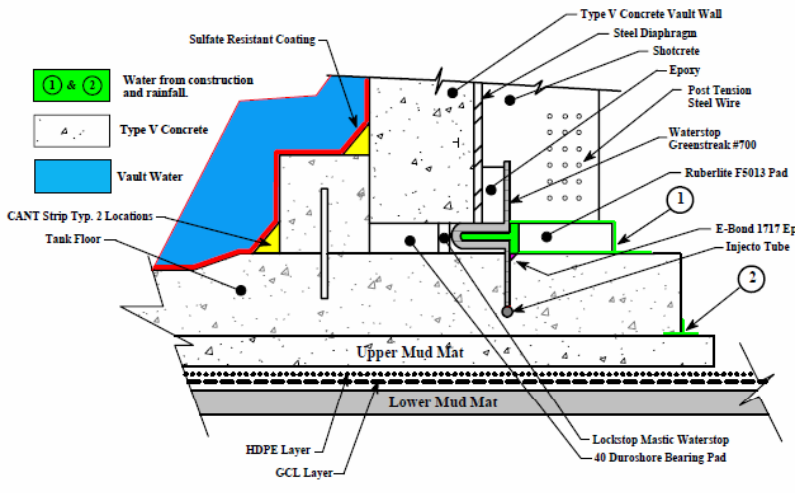
Saltstone Facility

Recent NDAA Monitoring Activities (cont.)

- Hydro-test performed on cells
  - Damp spots observed on outside of cells
  - Red fluorescent dye added and pink and/or fluorescent spots were observed
- NRC is monitoring effect on vault performance assumptions in the performance assessment

Saltstone Facility

Recent NDAA Monitoring Activities (cont.)



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Saltstone Facility

NRC Review of 2009 Saltstone PA

- 4/1/10: NRC issued 1st RAI
- 7/22/10: DOE response received
- 9/2/10: Public Teleconference on RAI Responses
- 10/10: 2nd RAI planned
- 2/11: NRC review to be completed *(Review documented in TER)*
- 3/11: NRC Monitoring Plan to be revised after review

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F-Tank Farm

NRC Consultation Activities

- DOE Draft Performance Assessment
  - NRC Staff reviewed PA in 2008 and provided comments
    - Major themes: Lack of support for key modeling assumptions, conceptual models, and uncertainty analysis parameters
  - Revised DOE PA submitted to NRC in April 2010
  - NRC Staff currently reviewing revised PA

F-Tank Farm

NRC Consultation Activities

- DOE Waste Determination
  - Public scoping meeting on July 13-14, 2010
  - DOE submits draft WD in October 2010
  - NRC submits RAI in December 2010
  - NRC's Final TER approximately May 2011
  - DOE submits final WD in June 2011
  - NRC Develops Monitoring Plan

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H-Tank Farm

NRC Consultation Activities

- Scoping Process
  - Meeting with NRC/DOE/EPA/SCDHEC meeting held April 2010
  - Only items unique to H-Tank Farm covered *(e.g., several tanks are located with zone of water table fluctuation or tank bottoms saturated)*
- Performance Assessment
  - To be submitted to NRC in March 2011

Future Plans

NRC NDAA Activities at the Savannah River Site

- Continued NRC interaction with CAB
- NRC/DOE Public Meeting scheduled for November 15
- Update the NRC monitoring plan and other activities for Saltstone
- Participation in consultation activities as for F and H Tank Farms

NRC/DOE Public Meeting

Upcoming Events

- Date: November 15, 2010
- Time: 7:00 PM – 10:00 PM
- Location: Aiken Community Center, Aiken, SC
- Purpose: Public awareness of NRC/DOE Section 3116 activities at the SRS