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Draft Supplement to the Department of Energy's Environmental Impact Statements for the Proposed Yucca Mountain Repository

Amargosa Valley, Nevada
September 17, 2015

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Overview

- Background – environmental review
- Overview of the draft supplement
- Opportunity for clarifying questions
- Public comments

How did we get here?

Environmental Review

- Framework
  - National Environmental Policy Act
  - Nuclear Waste Policy Act
- Activities
  - Department of Energy (DOE) environmental impact statements in 2002 and 2008
  - NRC staff review and Adoption Determination Report in 2008

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What did the NRC staff find in the Adoption Determination Report?

- EISs could be adopted, but supplementation is needed
- Scope of needed supplementation:
  - Impacts on groundwater beyond the regulatory compliance point
  - Impacts from surface discharge of groundwater beyond the regulatory compliance point
  - Including radiological and nonradiological contaminants

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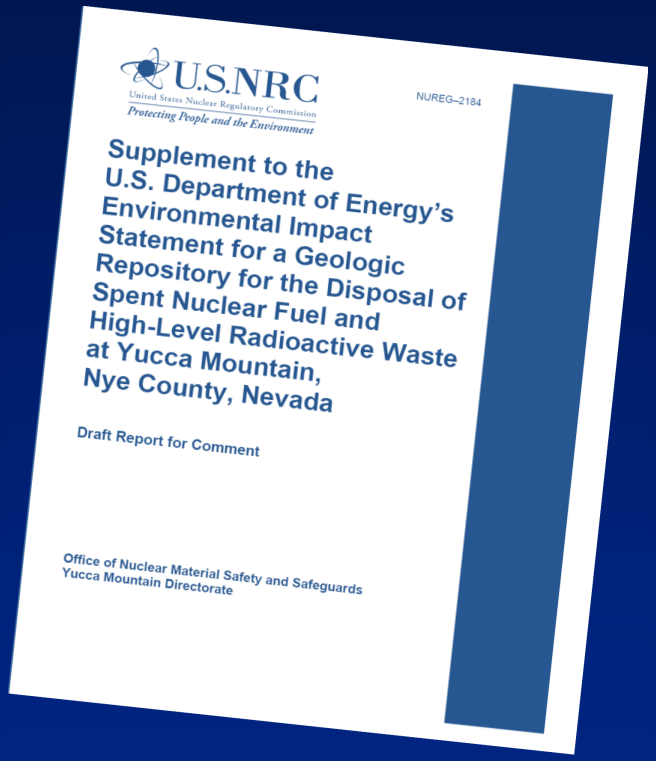
Why is the NRC staff supplementing DOE's EISs?

- NRC review and hearing process was suspended in 2011
- The NRC requested that DOE complete the supplement
- DOE deferred to the NRC
- NRC staff began work on the supplement after completing the Safety Evaluation Report

What is the scope of the supplement?

- Described in Adoption Determination Report
- Scope is limited because NRC staff found environmental impact statements otherwise appropriate for adoption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NUREG–2184

Supplement to the U.S. Department of Energy's Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada

Draft Report for Comment

Office of Nuclear Material Safety and Safeguards
Yucca Mountain Directorate

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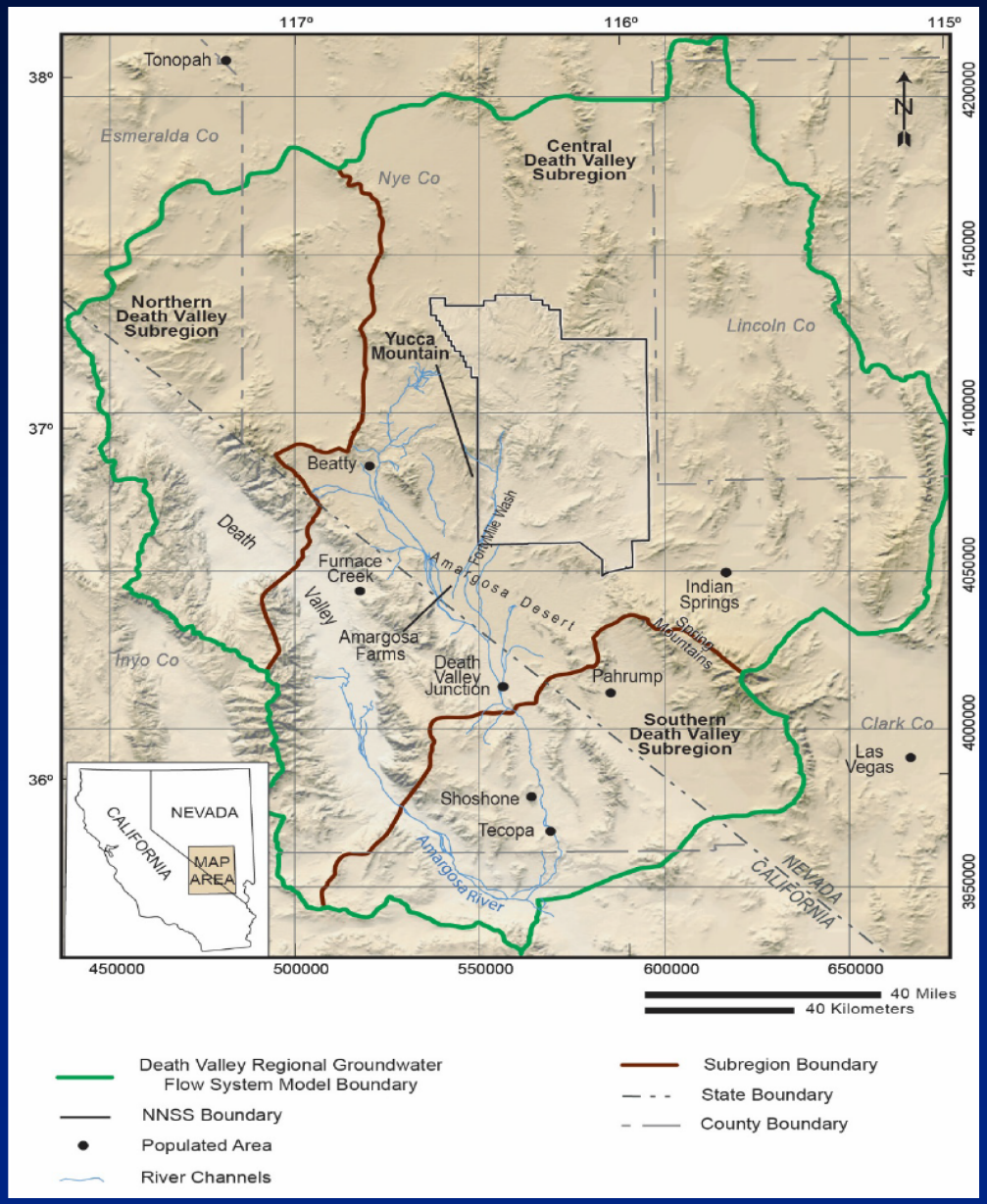
What is the potentially affected area?

- Area of groundwater flow path that could include contaminant releases from repository
- Evaluates groundwater flow path beyond regulatory compliance location
- Surface discharge areas (pumping and natural)

Death Valley Regional Groundwater Flow System



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What resources could be affected?

- Groundwater – the aquifer environment
- Soils
- Public health
- Ecology
- Potential for disproportionate impacts on minority or low-income populations

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What is the framework for the analysis?

- Radiological and nonradiological contaminants
- One million years after repository closure
- Builds on DOE's model of repository performance, as assessed and found acceptable in NRC staff's Safety Evaluation Report

What conditions are analyzed?

- Groundwater pumping
  - Pumping for irrigation in Amargosa Farms
  - No pumping ⇨ possible natural discharge
- Climates
  - Hot and dry (similar to present day)
  - Cooler and wetter

Deposits at Former Discharge Locations

Prehistoric spring discharge deposits
State Line area, Nevada-California

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What does the supplement conclude and why?

- Potential direct and indirect impacts would be small
- Potential cumulative impacts would be small
- Impacts are consistent with NRC staff understanding of contaminant transport through the aquifer

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Next Steps

- Teleconference, October 15
- Teleconference, November 12
- Comment period closes November 20, 2015
- Final supplement expected in first half of 2016

How to Comment

Present Oral Comments at a Public Meeting

Sign up at the registration desk to present oral comments in person at today's meeting

Call into the phone line for the October 15 or November 12 teleconferences

Submit Written Comments through November 20, 2015

Please include Docket ID NRC-2015-0051 in the subject line of written comments.

Post comments to the Federal Rulemaking Website: Go to http://www.regulations.gov and search for documents filed under Docket ID NRC-2015-0051. Click on the comment icon and complete the web form.

Mail comments to NRC: Cindy Bladey, Chief, Rules, Announcements, and Directives Branch, Division of Administrative Services, Office of Administration, Mail Stop OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001

Present written comments at a public meeting: Hand your written comments to NRC staff members at an EIS Supplement public meeting.