



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

Las Vegas, Nevada  
September 15, 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

## 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

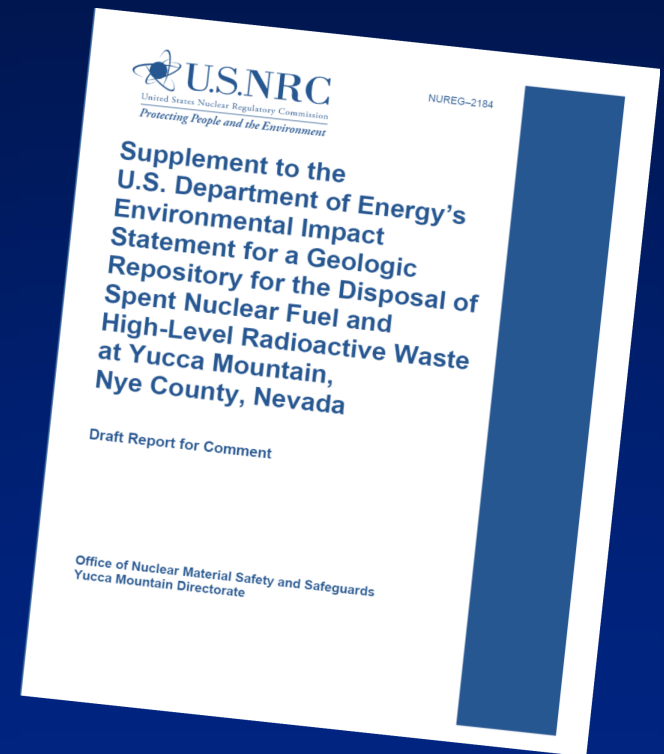


## Why is the NRC staff supplementing DOE's EISs?

- 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



# 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



# What resources could be affected?

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

# 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



# 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

# Next Steps

- Public meeting in Amargosa Valley (Nye County), September 17
- 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 a meeting

- Today's meeting
- September 17, 2015 at Amargosa Valley Community Center, NV

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.