

## MEETING MINUTES

### **Industrial Sites and Soils Committees**

November 2, 2010

3:00 p.m.

Nevada Support Facility  
232 Energy Way, North Las Vegas, NV

#### Industrial Sites

Members Present: Robert Gamble (Nye County), Michael Moore, Kelly Doeller (for Helen Neill, UNLV), Michael Voegele, Jim Weeks

#### Industrial Sites

Members Absent: Kathleen Bienenstein, Phil Klevorick (Clark County), Harry Mortenson

#### Soils Members Present:

Robert Gamble (Nye County), Donna Hruska, Robert Johnson, John McGrail, Michael Moore, Kelly Doeller (for Helen Neill, UNLV), Michael Voegele, Walt Wegst

#### Soils Members Absent:

Kathleen Bienenstein

#### U.S. Dept. of Energy:

Rob Boehlecke, Kevin Cabble, Cindy Lockwood (Acting DDFO)

#### Navarro-Intera:

Lynn Kidman, Mark Krauss, Pat Matthews, Christy Sloop

#### State of Nevada

Division of Environmental Protection: Kevin Campbell, Tim Murphy

#### Facilitator:

Denise Rupp, Navarro Research & Engineering, Inc.

### **Committee Chairs**

John McGrail agreed to serve as Chair of the Soils Committee with consensus of the committee members. Kathleen Bienenstein was nominated to serve as Chair of the Industrial Sites Committee with consensus of the committee. Denise Rupp will contact Ms. Bienenstein regarding her willingness to serve as Chair.

### **Soils Sub-Project Current Investigations**

**CAUs 374, 375, 106 and 372** (*Kevin Cabble*)

#### Soils Sub-Project Strategy

- Federal Facility Agreement and Consent Order (FFACO)
- Resource Conservation and Recovery Act (RCRA) risk-based Corrective Action Process
- Risk-based decision action level required above 25 mrem/year annual dose

#### Determination of Dose

- Exposure scenarios:
  - Industrial Area (2,250 hrs/yr)
  - Remote Work Area (336 hrs/yr)
  - Occasion Use Area (80 hrs/yr)
- Total annual dose estimated by separate estimates for internal and external dose components
- Internal dose calculated on analytical results of sieved surface soil
- External dose based on thermoluminescent dosimeter (TLD) results

#### Corrective Action Alternatives (CAA)

- No Further Action

- Clean Closure
- Closure in Place

#### Data Quality Objectives (DQO) Extent Decision

- Basic strategy for determining corrective action boundaries
- Define pattern of contaminant distribution
- Define sample locations
- Correlate dose to survey values
- Use survey isopleths corresponding to action level

#### CAU 374

- Five Corrective Action Sites (CAS)
- Corrective Action Investigation Plan (CAIP) approved February 2010
- Field investigation activities – June – November 2010
- Final results expected late November 2010

#### CAU 375

- Two CASs
- CAIP approved March 2010
- Field investigation activities July – December 2010
- Final results expected late December 2010

#### CAU 106

- Five CASs
- CAIP approved April 2010
- Field investigation activities October 2010 – January 2011
- Final results expected February 2011

#### CAU 372

- Four CASs
- CAIP approved June 2009
- Field investigation activities November 2009 – August 2010
- Meeting with NDEP to discuss preliminary results August 2010
- Continued field investigation activities September – October 2010
- Final results expected January 2011

#### NSSAB Involvement

- Recommendation regarding exposure scenarios for each CAS
- Recommendation regarding CAA for each CAS
- CAU 372 recommendation due January 2011
- Recommendations for CAUs 374, 375, and 106 tentatively scheduled for January 2011

#### Points of Discussion

- Additional information regarding the RESRAD (software program) process, including resuspension rates, and key parameters will be provided
- The nominal viewable area for the flyover radiation survey detectors has a diameter of roughly twice the height of the flyover (e.g., a flyover height of 50 feet would measure radioactivity over an area with a diameter of approximately 100 feet)
- Cost estimates for closure scenarios, including general assumptions will be provided
- Background information will be provided on baseline schedules into the future and current assumptions

#### **Engine Maintenance Assembly and Disassembly (EMAD) Rail Cars**

##### **CAU 566** (*Kevin Cabbie*)

Seven rail cars located at EMAD compound

- Two locomotives
  - No contamination
  - Previously with Army and Navy
  - Not used at NNSS

- One cable spool car and one flatcar
  - Posted, but no outward evidence of contamination
  - Will be investigated
- One flatcar
  - Contaminated
  - General use at EMAD
- Emplacement Installation Vehicle/Manned Control Car
  - No radioactive contamination
  - Will be investigated
  - Used at EMAD

#### Path Forward

- All cars will be investigated, decontaminated as necessary and drained of fluids
- Disposition alternatives
  - Provide to railroad museum intact
  - Disassemble for parts and provide to museum
  - Disassembly and dispose on-site
  - Leave in place
- Continue investigation efforts
- Work with interested parties to identify economical and useful disposition
- Receive NSSAB recommendation by March 2011 regarding preferred path forward
- Ensure disposition is documented according to FFAO and meets requirements of DOE Orders regarding removal of property

#### Points of Discussion

- Cost estimates will be provided for:
  - Decontamination/clearing small engine
  - Leaving uncontaminated engines in place
  - Disposal of engines/cars on-site

### Miscellaneous Contaminated Waste Sites

#### CAU 547 (*Rob Boehlecke*)

- Background
  - Three CASs (Player, Mullet, Bernalillo)
  - Primary component is piping containing plutonium (Pu) resulting from underground safety tests
  - Pu is present above the transuranic (TRU) waste limit of 100 nCi/g
- Remediation Drivers
  - Nuclear safety
  - Hazardous Category 3 (HazCat 3) initial categorization of three sites
  - Hazard analysis to demonstrate “less than HazCat 3” is reasonable
  - Hazard Analysis will be developed by December 2010
  - Worker safety
  - Long-term hazard to personnel
  - Regulatory requirements
  - Technical execution/cost
- Remediation Options
  - Clean closure
    - Pipe cut in place and placed in containers (managed as TRU waste)
    - Work segmented so as not to reach nuclear facility status
    - Low-level Waste generated on-site disposed at Radioactive Waste Management Site (RWMS)
    - Estimated costs between \$6M and \$40M for all three sites
    - Worker safety measures to include use of mobile glovebox, established contamination area, and respiratory protection and personal protective equipment

- Cost estimates under development
- Close in place
  - Player – cover all components with minimum three feet of soil without breaching piping incorporating geo-textile materials to deter rodents
  - Mullet – cover all components and soil areas with minimum three feet of soil incorporating geo-textile materials
  - Bernalillo – supplement existing cover incorporating geo-textile materials and investigate Tejon Vault
  - High profile features to be covered with soil using retention structure
  - Use Restriction and physical barriers
  - Worker safety measures to include soil placement at perimeter slowly working onto pipe and collars around elevated surface features
  - Cost estimates under development
  - Modeling is same as used to assess Area 3 RWMS assuming exposure is to transient visitor for no more than 80 hours per year with one foot of cover resulting in less than 25 mrem/yr over 1,000 year period
- Regulatory Questions
  - Is remediation consistent with DOE complex-wide response?
  - Risk Document to evaluation remediation options based on risk and dose scenarios
  - DOE Complex-Wide Document provides results of similar sites and remediation solutions
- Regulatory Framework
  - Compliance with appropriate orders/regulations
  - Streamlined Approach for Environmental Restoration (SAFER) to be finalized to describe selected approach
- Path Forward
  - Close in Place approach discussed with DOE/ Headquarters
  - Continue to discuss merits of options with NDEP
  - Continue to evaluate safety, monitoring, compliance and cost of closure options
  - SAFER currently scheduled for completion May 31, 2011
- NSSAB Involvement
- Provide recommendation on closure alternative (if Closed in Place, provide recommendation on protective measures)
- Recommendation due January 2011

#### Points of Discussion

- Photographs of the geo-textile material as used in the Closure in Place option will be provided
- Estimate for the rate of decomposition if no action is taken will be provided
- Additional information will be provided regarding a crimper cutter option
- A summary and update of the existing Risk Document will be provided, as well as a summary of remediation at other Pu sites across the complex
- It was suggested EM consider/investigate the use of landfill monuments in conjunction with the Close in Place option
- A summary of record keeping information will be provided

The next meeting will be held at 3:00 p.m. Monday, December 13 at a location to be determined. Additional meetings have been tentatively scheduled for January 18 and February 1, 2011.

The meeting adjourned at 5:50 p.m.