

**Department of Energy**

Office of Civilian Radioactive Waste Management  
1551 Hillshire Drive  
Las Vegas, NV 89134-6321

QA: N/A

**RECEIVED BY BSC CCU****DATE: 02/06/2007**

FEB 06 2007

Ms. Amy LaVoie, Acting Assistant Field Supervisor  
U.S. Department of the Interior  
Fish and Wildlife Service  
Southern Nevada Field Office  
4701 North Torrey Pines Drive  
Las Vegas, NV 89130

Subject: 2006 Annual Report of Compliance Activities Conducted for the Biological Opinions for the Yucca Mountain Project (File Numbers 1-5-96-F-307R and 1-5-00-F-518)

Dear Ms. LaVoie:

Enclosed is the report of activities conducted during 2006 by the U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Yucca Mountain Site Operations Office. This report was written to comply with Biological Opinions 1-5-96-F-307R and 1-5-00-F-518.

If you have any questions, please contact either Marian J. Crawford of my staff at (702) 794-5585 or Kurt R. Rautenstrauch of Bechtel SAIC Company, LLC, at (702) 821-7282.

Sincerely,

A handwritten signature in cursive script that reads "R.E. Spence".

Richard E. Spence, Program Manager  
Environment, Safety, Health, and Security  
Yucca Mountain Site Operations Office

Enclosure:  
Annual Report

Ms. Amy LaVoie

-2-

FEB 06 2007

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**Summary of Actions Taken During 2006  
to Comply with the Biological Opinions for the  
Yucca Mountain Project  
(File Nos. 1-5-96-F-307R and 1-5-00-F-518)**

February 2007

**Prepared by:  
U.S. Department of Energy  
Office of Repository Development  
1551 Hillshire Drive  
Las Vegas, NV 89134-6321**

**Prepared for:  
U.S. Department of the Interior  
Fish and Wildlife Service  
Southern Nevada Field Office  
4701 N. Torrey Pines Drive  
Las Vegas, NV 89130**

Enclosure

The U.S. Department of Energy's (DOE) Office of Repository Development has prepared this report to the U.S. Fish and Wildlife Service (FWS) to comply with the requirements of the *Final Biological Opinion for Reinitiation of Formal Consultation for Yucca Mountain Site Characterization Studies* (File No. 1-5-96-F-307R), which was released in July 1997. This Opinion covers site characterization, site confirmation, and similar activities to occur in the Yucca Mountain area prior to licensing and construction of a repository. The requirements of that Opinion state that the Office of Repository Development shall report annually all actions taken under this consultation, including acreage affected, habitat rehabilitation actions completed, and the number of desert tortoises taken and by what means.

The DOE and FWS also have completed consultation on the effects of construction, operation, monitoring, and closure of a geological repository at Yucca Mountain. The *Final Biological Opinion for the Effects of Construction, Operation and Monitoring, and Closure of a Geologic Repository at Yucca Mountain, Nye County, Nevada* (File No. 1-5-00-F-518) was completed in 2001. Activities covered by that Opinion have not yet been initiated; therefore, the remainder of this report describes only those actions taken to comply with Biological Opinion 1-5-96-F-307R.

### **Compliance Actions**

Surveys—Preactivity and/or clearance surveys were conducted for the following activities in 2006. A total of about 214.8 acres were surveyed.

- Gate 510 Complex (Case 06-001.00)
- Relocation of Gate 510 Guard Shack (Case 06-001.01)
- Power line installation to support Gate 510 Complex (Case 06-001.02)
- Installation of telecommunication tower at Gate 510 (Case 06-002.00)
- Installation of telecommunication tower on Exile Hill (Case 06-003.00)
- Installation of telecommunication tower on Yucca Mountain Crest (Case 06-004.00)
- Partial removal of water line for storm water drainage improvement along H Road (Case 06-005.00)
- Aggregate sample collection (Case 06-006.00)
- Geotechnical soil investigations for Lower Muck Yard (Case 06-007.00)
- Development of facilities and infrastructure in the Lower Muck Yard (Case 06-008.00 and 06-011.00)
- Repository facility geotechnical investigations in Midway Valley (Case 06-009.00 and 07-001.00)
- Topsoil collection from Midway Valley and redistribution on reclamation sites (Case 04-008.00)
- Backfilling and recontouring 14 open trenches (no case number)
- Cal Tech geodetic stations (Case 05-007.00)
- Waterline along H Road (Work Package # 19999-02)
- Construction of Baker tanks and 40-Mile Wash fill-stand tie-in (Work Package # 20019.00)
- Exile Hill fiber optic line (no case number)

A number of inactive tortoise burrows were found, inspected, and collapsed prior to surface disturbing activities. One tortoise in a burrow was found during a clearance survey. The activity was moved to avoid disturbing the tortoise and burrow. No tortoise eggs were found during clearance surveys.

Off-Road Driving— Off-road driving occurred in 2006 for aggregate sample collection (Case 06-006.00) because there were no established access roads to the collection sites. Total area cleared for this activity was 0.3 acres.

Employee Training— During 2006, all personnel that worked unescorted at Yucca Mountain completed initial or annual refresher training required by the Biological Opinion. That training covered the life history and legal protection of the desert tortoise, penalties for violation of laws, reporting requirements, and measures for protecting tortoises and promoting their conservation.

Fence Monitoring—There were no tortoise-proof fences at Yucca Mountain that required monitoring during 2006.

Litter Control—Edible trash was placed in covered receptacles.

### **Habitat Disturbances**

In 2006, 25.9 acres of previously undisturbed desert tortoise habitat was cleared of vegetation or otherwise disturbed for Project activities. The total amount of land disturbed at Yucca Mountain since 1991 is now 362.1 acres. This is 52.9 acres less than the total of 415 acres allowed by Biological Opinion 1-5-96-F-307R.

### **Habitat Reclamation**

Initial Reclamation— In 2006, 14 open trenches were backfilled and recontoured in preparation for revegetation treatments. Initial reclamation will be completed on these sites in 2007 and 2008. The land area for these sites will be added to the total amount reclaimed when revegetation treatments have been applied. The total amount of land reclaimed by the Office of Repository Development is 90.2 acres.

Interim Monitoring and Remediation—No interim monitoring or remediation occurred in 2006.

Reclamation Success Evaluations— Data analysis was completed in 2006 to evaluate the success of reclamation on eleven sites that were monitored for release in 2005 and four sites that were monitored for release in 2006. The evaluations were conducted in accordance with the Project's *Reclamation Standards and Monitoring Plan (RSMP)*, which was approved by the FWS in 1998. All sites, totaling 2.4 acres, were released from further monitoring.

Five large sites, totaling 4.86 acres were evaluated in 2006 for release from further monitoring using quantitative vegetation measurements. The sites were reclaimed in 1999 and 2000. For

comparison, quantitative vegetation measurements were also made on undisturbed reference areas located in close proximity to the reclaimed sites. Four small sites, totaling 0.64 acre, also were evaluated for release from further monitoring using qualitative vegetation measurements. Data analysis for success evaluations is in progress and results will be reported in 2007.

To date, 110 sites totaling 26.1 acres have been successfully reclaimed and released from further monitoring and remediation.

### **State Handling Permit**

Bechtel SAIC Company, LLC, the management and operating contractor for this Project, maintained permit S27740 from the Nevada Department of Wildlife to comply with state permit requirements for handling desert tortoises.

### **Incidental Take**

No desert tortoises were injured or killed on Project sites during 2006 or at any other time since the issuance of the Biological Opinion in July 1997. The incidental take provision of the Opinion allows a total of eight tortoises to be accidentally injured or killed on-site during all Project activities.

One desert tortoise was found dead on an access road at Yucca Mountain in May 2006. This mortality was reported to the FWS office of law enforcement in Las Vegas in accordance with Biological Opinion 1-5-96-F-307R. Three tortoises have been killed on access roads at Yucca Mountain since July 1997. The incidental take provision allows an unknown (i.e., unlimited) number of tortoises to be incidentally killed on access roads.

No desert tortoises or tortoise eggs were captured and relocated out of harm's way on Project sites during 2006. The incidental take provision allows up to 10 tortoises to be relocated off of Project sites per year.

Tortoises were observed on or near roads at Yucca Mountain 15 times during 2006. During 10 of those observations, the tortoises were considered to be in imminent danger and were moved off the road. The other fourteen were allowed to cross on their own. Tortoises have been moved off of roads at Yucca Mountain a total of 75 times since July 1997. The incidental take provision allows an unknown number of tortoises to be captured and moved out of imminent danger on roads.

### **Observations of Dead or Injured Tortoises**

No carcasses of desert tortoises that had died of natural causes were found during Project activities in 2006.