

*Revised WRM letter
Add 6/4/92*

**REGULATORY COMPLIANCE AND PERMIT STATUS REPORT
FOR SITE CHARACTERIZATION FOR THE PERIOD
APRIL, 1992**

Prepared for:

U.S. Department of Energy
Office Of Civilian Radioactive Waste Management
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Prepared by:

TRW Environmental Safety Systems Inc.
2650 Park Tower Drive
Suite 800
Vienna, Virginia 22180

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1. INTRODUCTION

This report reviews and updates the status of permitting and approvals for April 1992 for the Office of Civilian Radioactive Waste Management's integrated waste management system. The information in this report was provided by the Yucca Mountain Project (YMP). At the present time, permitting and regulatory approval activities are focused on the Yucca Mountain Site Characterization.

1.1 UNUSUAL ACTIONS

During this reporting period no new unusual actions are known to have occurred. Unusual actions are lawsuits or legislative actions undertaken to interrupt OCRWM's integrated waste management operations.

1.2 PERMIT/APPROVAL MATRICES.

A summary of the current permitting and regulatory approval activities is presented in Appendixes A, B, and C. Appendix A, Permit Status Matrix, provides a management "flash" of the status of individual permits and approvals to date. Appendix B, Site Characterization Matrix, lists the site characterization activities and the permit(s) and regulatory approvals required to perform the action. Appendix C, Permit/Approvals Background and Chronology, provides dates, actions, decisions, and correspondence for each permit or regulatory approval.

2. PERMITS/APPROVALS OBTAINED

Those permits and approvals obtained during the current reporting period have been delineated in this section.

2.1 FEDERAL

No new Federal permits or approvals were obtained during the current reporting period. For details of those permits received in prior periods, refer to Appendices A, B, and C.

2.2 STATE

No new State permits or approvals were obtained during the current reporting period. See Appendix A, B, and C for permits and approvals obtained in earlier periods.

2.3 LOCAL

Local permits and approvals are not required for site characterization.

3. PERMITS/APPROVALS IN PROGRESS

This section delineates those permits and approvals where an application has been submitted or approval process is underway (See Appendix A). In cases where the application approval process has been lengthy, details are presented in Appendix C.

In addition to permits and approvals in progress, several permits have been identified as needed, but requiring Title II design information. ESF Title II design will start in calendar year 1992. When Title II design information is available for permit applications and approvals, the permit applications and approval requests will be completed and filed. (See Appendix A and C).

3.1 FEDERAL

3.1.1 Free Use Permit

On January 28, 1992, a Free Use Permit Application was filed with the BLM for 40 Mile Wash. The Permit Application requests permission to acquire 460,300 cu. yds. of borrow material. Permit approval is anticipated in April or early May.

3.2 STATE

3.2.1 Underground Injection Control Permit

A permit modification application was submitted to the Nevada Department of Conservation and Natural Resources on December 12, 1991. This application amends the tracer use plan for the C-Well Complex, Permit # NEV89031. As part of the permit application amendment process, a 30 day public comment period is required. During the public comment period the State of Nevada did receive comments. The comments were then forwarded to YMPO for response. YMPO has addressed the comments and returned them to the state of Nevada. Based on the number and types of comments received, a subsequent hearing may not be required.

3.2.2 Air Registration Certificate

On March 9, 1992, an Air Registration Certificate was requested from the Nevada Division of Environmental Protection (NDEP) to run a gravel screen operation in 40 Mile Wash. Permit approval is anticipated May 15, 1992.

3.3 LOCAL

No local permits are required for site characterization.

4. UNUSUAL ACTIONS

4.1 LEGISLATION

No new legislative actions were undertaken to influence the Yucca Mountain Project during April.

4.2 LAWSUITS

As the result of a suit initiated by the Department of Justice for DOE, the U.S. District Court, District of Nevada, assumed jurisdiction over the permit application process for three permits. These were the Underground Injection Control Permit, the Water Appropriation Permit, and the Surface Disturbance Permit. The impetus for the legal action was to force the State of Nevada to undertake the normal permit application review process which Nevada was refusing to do. Subsequently, the Underground Injection Control Permit and Surface Disturbance Permit have both been issued. After the permits were issued, the U.S. District Court relinquished jurisdiction over the permitting process for the Underground Injection Control Permit and the Surface Disturbance Permit.

On March 2, 1992, the Nevada State Engineer (NSE) issued the Groundwater Appropriation Permit. Subsequent to permit issue the Department of Justice filed a petition for dismissal on behalf of DOE in the U.S. District Court, District of Nevada. The petition for dismissal indicates that the remedies requested in the lawsuit have been satisfied.

New York v. United States was mentioned in the March report. The U.S. Supreme Court did hear this case during the last week of March. This case is a test of the Garcia precedent. This precedent allowed DOE to prevail in Nevada v. DOE, when the State of Nevada claimed the NWPA violated Nevada sovereignty. The Supreme court has not yet rendered a decision, based on the March hearing.

ACRONYM LIST

AAA	American Antiquities Act
ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
ARPA	Archeological Resources Protection Act
BIA	Bureau of Indian Affairs
BO	Biological Opinion
BLM	Bureau of Land Management
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
COE	Corps of Engineers (U.S. Army)
DOE	Department of Energy
DOT	Department of Transportation
EA	Environmental Assessment
EH	Environmental Safety & Health (office symbol within DOE)
EO	Executive Order
ESA	Endangered Species Act
ESF	Exploratory Studies Facility
FLPMA	Federal Land Policy Management Act
FPPA	Farmland Protection Policy Act
HLW	High Level Waste
HMMHP	Hazardous Materials Management and Handling Plan
HMTA	Hazardous Materials Transportation Act
HQ	Headquarters, DOE
HR	House Resolution (bill introduced in U.S. House of Representatives)
LLRWPA	Low Level Radioactive Waste Policy Amendments Act
NAC	Nevada Administrative Code
NDCNR	Nevada Department of Conservation and Natural Resources
NDH	Nevada Department of Health
NDEP	Nevada Division of Environmental Protection
NDOW	Nevada Division of Wildlife
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

ACRONYM LIST (Continued)

NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRS	Nevada Revised Code
NSE	Nevada State Engineer
NTS	Nevada Test Site
NWPA	Nuclear Waste Policy Act
NWPAA	Nuclear Waste Policy Amendments Act
NWP	Nationwide Permit
PA	Programmatic Agreement
PL	Public Law
PTS	Permit Tracking System
RCRA	Resource Conservation and Recovery Act
S.B.	Senate Bill (bill introduced in U.S. Senate)
SBT	Surface Based Testing
SCS	Soil Conservation Service
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer (for Nevada)
SHO	State Health Officer (for Nevada)
SOF	Statement of Finding
TDS	Total Dissolved Solids
UIC	Underground Injection Control Permit
US	United States
USAF	United States Air Force
USFWS	United States Fish and Wildlife Service
USC	United States Code
USGS	United States Geological Survey
v.	Versus
YMPHMMHP	Yucca Mountain Project Hazardous Materials Management and Handling Plan
YMPO	Yucca Mountain Project Office

MATRIX TITLE DEFINITIONS FOR APPENDICES

Applicable Activities: Activities which require the permit or approval.

Key Issues: Areas of contention and stumbling blocks that are being experienced in the application process.

Permit or Approval: Written authorization from the appropriate authority granting permission to perform specified activities.

Regulation and Authority: The regulation is the federal and/or state act or law which sets forth the requirement for the regulation necessary to comply with the Act. The authority is the agency that has the responsibility for issuing permits and approvals and monitoring regulatory compliance.

Requirements: The conditions which must be met in order to receive a permit or approval to perform specified activities.

Issuing Agency: The agency responsible for issuing the permit or approval.

Self-explanatory titles used in appendix matrices are not listed here.

APPENDIX A
PERMIT STATUS MATRIX

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PERMIT STATUS MATRIX**

PERMIT/APPROVAL	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/APPROVAL RECEIVED	COMMENTS
Federal				
Endangered Species Act (ESA) Compliance	USFWS	10/10/89	02/09/90	Trapping and Handling Permit Issued to EG&G 7/21/91 for Drillhole Wash.
Materials Act; Free-Use Permit.	BLM	07/15/89	10/26/90	Permit for 270,000 cu yards of borrow material borrowed material in Drillhole Wash.
Materials Act; Free-Use Permit.	BLM	1/28/92	In Progress	Permit to acquire 460,300 cu. yds. of borrow material from 40 Mile Wash.
American Indian Religious Freedom Act; Native American Consultations.	BIA	12/01/86	12/01/89	Covered under Programmatic Agreement. See comment for National Historic Preservation Act.
National Historic Preservation Act.	ACHP	12/01/86	12/22/88	Programmatic Agreement signed 12/22/88. Covers historic, archaeological, and Native American regulations.
Archaeological and Historic Protection Act.	ACHP	12/01/86	12/22/88	See National Historic Preservation Act comment.
Historic Sites and Antiquities Act.	ACHP	12/01/86	12/22/88	See National Historic Preservation Act comment.
Executive Order 11988; Flood Plain Management.	DOE	03/15/91	10/01/91	For surface based testing.
Clean Water Act Section 404 Permit.	COE	04/28/89	07/17/90	

**APPENDIX A
PERMIT STATUS MATRIX**

PERMIT/APPROVAL	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/APPROVAL RECEIVED	COMMENTS
Federal				
Federal Land Policy and Management Act; BLM Right-of-Way.	BLM	11/23/87	01/08/89	
Federal Land Policy and Management Act; USAF Right-of-Way.	USAF	03/25/87	10/10/89	
Farmland Protection Policy Act.	SCS	02/11/88	03/01/88	
Executive Order 11990; Protection of Wetlands.	USFWS	01/01/88	03/01/88	
Land Withdrawal.	BLM	12/13/89	09/17/90	Total 4255.5 acres withdrawn for 12 years.
Noise Control Act.	DOE			Required to monitor noise in work areas. No permit required. This is for worker health and safety and Nevada wildlife requirements.
National Environmental Policy Act (NEPA).				Complying with NEPA by implementing requirements of Environmental Regulatory Compliance Plan and Environmental Mitigation and Management Plan.

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PERMIT STATUS MATRIX**

PERMIT/APPROVAL	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/APPROVAL RECEIVED	COMMENTS
Federal				
Comprehensive Environmental Response, Compensation and Liability Act	DOE			No permit required. Notification and remedial action required in the event of hazardous substance release. (Response plan in draft form.)
Hazardous Material Transportation Act.	DOT			Comply with procedures for use of approved carriers. (Draft plan addresses requirements of Act.)
Executive Order 11988; Floodplain Management (for ESF).	DOE	*	*	Submit to DOE/EH for approval. Public notice of intent issued 02/09/89. Is currently being written.
Clean Water Act Section 404 Permit (for ESF).	COE	*	*	

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*Indicates permit or approval is needed, but design information is required as part of the application process.

**APPENDIX A
PERMIT STATUS MATRIX**

PERMIT/APPROVAL State	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/APPROVAL RECEIVED	COMMENTS
RCRA Generator I.D. Number #NV 789-009-0023.	RCRA/NDEP ¹	04/01/89	06/27/89	Receive ID number from EPA 6/27/89
Underground Injection Control Permit for Surface Based Testing; Permit # NEV 89031.	SDWA/NDEP ¹	04/06/89	07/17/91 Amendment in progress.	Permit amendment submitted December 12, 1991. Amendment is for 50 of the Drill holes in the C-well complex.
Air Registration Certificate for Land Disturbance for > 20 acres. Permit # 2693	CAA/NDEP ¹	01/20/88	06/12/91	Reporting Requirements: Quarterly Reports of air quality monitoring results,
Air Registration Certificate for LM 300 Drill Rig with 600 hp engine.	CAA/NDEP ¹	08/27/91	11/04/91	Reporting Requirements: Quarterly Reports of air quality monitoring results.
Air Registration Certificate for Gravel Screen Operation.	CAA/NDEP ¹	3/9/92	In Progress	Gravel screen operation will be located in 40 Mile Wash.
Groundwater Appropriation Permit, Well J-13. Permit # 52338.	NSE	07/12/88	03/02/92	Report quarterly to the State Engineer. Record of water withdrawn daily, types and places of use. Permit expires 10 years from issue date.

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¹Authority derives from Federal law, but is administered by the State of Nevada, Law and Agency shown.

**APPENDIX A
PERMIT STATUS MATRIX**

PERMIT/APPROVAL State	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/APPROVAL RECEIVE	COMMENTS
Temporary Groundwater Appropriation Permit, Well VH-1.	NSE	09/03/91	09/13/91	Original permit filed 02/27/82. Well was never used. Extensions to show beneficial use filed annually.
Groundwater Appropriation Permit Waiver, Well JF-3	NSE	10/10/91	10/24/91	Well not intended for beneficial use. This is a drill hole to water table. Nevada regulations require permit if hole goes to water table.
Groundwater Appropriation Permit Waiver, Hole UZ-16.	NSE	12/11/91	01/10/92	Well not intended for beneficial use. This is a drill hole to water table. Nevada regulations require permit if hole goes to water table.
Special Handling Permit for Nevada Protected Species.	NDOW	02/11/91	07/02/91	Small mammal trapping permits issued.
State Permits for capture or removing protected species	NDOW	02/11/91	07/02/91	
State Approval for removing cacti/yucca plants.	NDCNR	02/16/88	07/11/89	This is for BLM ROWR N-47748. The State indicated approval needed to come from BLM. On 7/11/89 letter from BLM to YMPO gave authorization (letter from Collias to Gertz).
NPDES permit for C-Well Complex.	NDEP	04/06/89	07/16/91	

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**APPENDIX A
PERMIT STATUS MATRIX**

PERMIT/APPROVAL State	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/ APPROVAL RECEIVED	COMMENTS
NPDES permit for Well SF-3.	NDEP	10/18/91	11/15/91	The NPDES permit was included as part of the C-Well UIC permit.
Underground Injection Control Permit for ESF	SDWA/NDEP ¹	*	*	
Air Registration Certificate for Gravel Screening Plant.	CAA/NDEP ¹	*12/30/92	*06/30/93	
Operating Permit for Gravel Screening Plant.	CAA/NDEP ¹	*	*	Obtain operation permit within 6 months of source registration approval. Report quarterly: air quality results.
Air Registration Certificate for Batch Cement Plant.	CAA/NDEP ¹	*12/30/92	*06/30/93	
Operating Permit for Batch Cement Plant.	CAA/NDEP ¹	*	*	Obtain operation permit within 6 months of source registration approval. Report quarterly: air quality results.

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* Indicates permit or approval is needed, but design information is required as part of the application process. Dates are projections.

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**APPENDIX A
PERMIT STATUS MATRIX**

PERMIT/APPROVAL State	ISSUING AGENCY	DATE APPLICATION FILED	DATE PERMIT/ APPROVAL RECEIVED	COMMENTS
Air Registration Certificate for Portal Vents.	CAA/NDEP ¹	*09/30/94	*03/30/95	
Operating Permit for Portal Vents.	CAA/NDEP ¹	*	*	Obtain operation permit within 6 months of source registration approval. Report quarterly: air quality results.
NPDES permit for discharges sewage disposal, mine wastewater and other minor discharges.	CWA/NDEP ¹	*09/30/94	*03/30/95	Report quarterly: total volume of fluid discharge, results of chemical analysis, list of production wells used. Report annually: results of discharge data collection.
NPDES permit for storm water discharges for construction and industrial activities.	CWA/NDEP ¹	*04/30/92	*10/15/92	See comment for NPDES above.
Drinking Water System Permit.	SDWA/NDH	*02/30/93	*08/15/93	
Sanitary Sewage Disposal Permit.	CWA/NDCNR	*03/30/93	*10/30/93	
State Water Pollution Control Permit (Zero Discharge Permit).	NDEP	*07/30/93	*03/30/95	For pond construction
Landfill Approval	NDEP	*08/1/92	*12/30/92	For Class III landfill.

*Indicates permit or approval is needed, but design information is required as part of the application process. Dates are projections.

¹Authority derives from Federal law, but is administered by the State of Nevada, Law and Agency shown.

APPENDIX B
SITE CHARACTERIZATION MATRIX

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SITE CHARACTERIZATION MATRIX**

APPLICABLE ACTIVITY	PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY
Site Characterization activities conducted in areas populated by the desert tortoise, a threatened species under the ESA.	Endangered Species Act (ESA) Compliance	Regulation: ESA (16 USC 1531); 50 CFR 17.11, 17.12, 17.94-96, 50 CFR 13, 222, 227, 402, 424, and 450-453. Issuing Agency: USFWS.
Extraction and use of sand and gravel for construction of drill pads, etc.	Free-Use Permit.	Regulation: Materials Act (30 USC 601-604); 40 CFR 3600 et seq. Issuing Agency: BLM.
All site characterization activities that directly or indirectly affect sacred religious sites, historic sites or archaeological resource.	Native American Consultations & Protection of Cultural Resources. To meet requirements of Programmatic Assessment.	Regulation: American Indian Religious Freedom Act (AIRFA)(42 USC 1996); 36 CFR 296 and 43 CFR 7. Issuing Agency: BIA
All site characterization activities that directly affect historic or cultural resources.	National Historic Preservation Act. Compliance under Programmatic Agreement for National Historic Preservation Act.	National Historic Preservation Act (NHPA)(16 USC 470 et seq.); 36 CFR 60, 61, 63, 65, 67, 68, and 800; E.O. 11593. Issuing Agency: ACHP.
All site characterization activities that directly affect historic or cultural resources.	Archaeological and Historic Preservation Act. Compliance under Programmatic Agreement for National Historic Preservation Act.	Archaeological and Historic Preservation Act (16 USC 469-469c). Issuing Agency: ACHP.
All site characterization activities that directly affect historic or cultural resources.	Historic Sites, Building, and Antiquities Act as amended. Compliance under Programmatic Agreement for National Historic Preservation Act.	Historic Sites, Buildings, and Antiquities Act an amended (16 USC 461-467, 470 aa-11); 36 CFR 296; 43 CFR 7. Issuing Agency: ACHP.

**APPENDIX B
SITE CHARACTERIZATION MATRIX**

APPLICABLE ACTIVITY	PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY
<p>Construction of drill holes, drill pads, ESF pads, trenching, and construction of dirt roads, if located in a floodplain.</p> <p>Covers surface based testing.</p>	<p>Floodplain Executive Order Compliance.</p>	<p>Regulation: EO 11988 Floodplain Management, as amended by EO 12148; 10 CFR 1022.</p> <p>Issuing Agency: DOE must publish a notice of involvement and a statement of findings in the Federal Register.</p>
<p>Site Characterization activities involving the dredging and filling of waters of the U.S.</p> <p>Covers surface based testing. U.S.</p>	<p>Clean Water Act Section 4040 Permit.</p>	<p>Regulation: CWA (33USC 1344); 33 CFR 330, 330.9.</p> <p>Issuing Agency: U.S. Army Corps of Engineers (COE)</p>
<p>Site characterization activities occurring on BLM lands and BLM-administered land.</p>	<p>BLM Right-of-Way #N47748.</p>	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1701-1784); 43 CFR 3600 et seq; EO 11989 and 11988.</p> <p>Issuing Agency: BLM.</p>
<p>Site characterization occurring on United States Air Force lands.</p>	<p>USAF Right-of-Way #N48602.</p>	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1701-1784); 43 CFR 3600 et seq; EO 11989 and 11988).</p> <p>Issuing Agency: U.S. Air Force.</p>
<p>Potential for site characterization activities to convert farmlands deemed prime or unique to nonagricultural uses.</p>	<p>Identification of prime or unique farmland.</p>	<p>Farmland Protection Policy Act (PL 97-98; 7 USC 4201-4209; 7 CFR 658).</p> <p>Issuing Authority: SCS.</p>
<p>Those site characterization activities that may modify or destroy wetlands.</p>	<p>Protection of Wetlands</p>	<p>EO11990 Protection of Wetlands (10 CFR 1022)</p> <p>Issuing Authority: USFWS</p>
<p>Removal of land from public domain and from leasing under mineral leasing laws in order to maintain the physical integrity of the subsurface environment to ensure that scientific studies for site characterization.</p>	<p>Land Withdrawal</p>	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1714; 43 CFR 2300).</p> <p>Issuing Authority: BLM.</p>

**APPENDIX B
SITE CHARACTERIZATION MATRIX**

APPLICABLE ACTIVITY	PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY
Generation, handling, and management of hazardous wastes generated on-site.	RCRA Generator ID Number. NV 789-009-0023	Regulation: RCRA (42 USC 6901-6987); 40 CFR 124, 240-247, 260-264, 266, 270, 271, 280; NRS 459.400 et seq.; NAC 444.570-444.748 and 444-8500-444.9335. Issuing Agency: NDEP.
Injection of tracers into test wells during surface-based testing.	Underground Injection Control (UIC) Permit for Surface Based Testing.	Regulation: Safe Drinking Water Act (SDWA), as amended (42 USC 300[h][Part C]); 40 CFR 124, 144-147, 149; NRS 445.131-445.354; NAC 1-96.1. Issuing Agency: NDEP.
Surface disturbances of more than 20 acres, including construction of roads and drill pads during surface-based testing and ESF site preparation.	Air Registration Certificate for Land Disturbance.	Regulation: CAA, as amended (42 USC 7401-7642); 40 CFR 50-53, 58, 60-61, 81.300-81.400, 124; EO 12088; NRS 445.401 et seq; NAC 445.430-445.995. Issuing Agency: NDEP.
Use of approximately 145 acre feet of water from well J-13 during surface-based testing and ESF site preparation, which includes dust suppression, drilling and trenching.	Groundwater Appropriation Permit.	Regulation: NRS 533.325-533.540 and 534.010-534.190. Issuing Agency: Nevada State Engineer (NSE).
Studies to monitor and mitigate any potentially significant adverse impacts of site characterization on terrestrial ecosystems; including studies by EG&G to determine the density and distribution of the desert tortoise in the vicinity of Yucca Mountain, their habitat preferences, dispersal behavior, and the presence of symptoms of upper respiratory disease syndrome.	Special Handling Permit for Nevada Protected Species.	Regulation: NRS 503.585, 527.05-527.100; NAC 503.010-503.090. Issuing Agency: Chief Game Warden for the State of Nevada, NDOW.

**APPENDIX B
SITE CHARACTERIZATION MATRIX**

APPLICABLE ACTIVITY	PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY
Capture, destruction, or removal of a state protected species.	State permits for capture or removing protected species.	Regulation: Nevada State Wildlife Statutes (NRS 501.105 to 501.110); NAC 503.010-503.080. Issuing Agency: NDOW.
Removal of cacti or yucca plants along BLM Right-of-Way.	Approval to remove cacti/yucca plants.	Regulation: Nevada State Vegetation Statutes (NRS 527.05 to 527.100). Issuing Authority: NDOW/Property Owner.
Injection of tracers into test wells during ESF testing.	UIC Permit for ESF.	Regulation: SDWA as amended (42 USC 300 [h][part C]); 40 CFR 124, 144-147, 149; NRS 445.131-445.354; NAC 1-96.1. Issuing Agency: NDEP.
Construction and operation of the gravel screening plant to be used in construction of ESF.	Air Registration Certificate/Operating Permit for the Gravel Screening Plant.	Regulation: Clean Air Act (CAA), as amended (42 USC 7401-7642); 40 CFR 50-53, 58, 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 45.401 et seq. Issuing Agency: NDEP.
Construction and operation of the Batch Cement Plant.	Air Registration Certificate/Operating Permit for the Batch Cement Plant.	Regulation: Clean Air Act (CAA), as amended (42 USC 7401-7642); 40 CFR 50-53, 58, 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 445.401 et seq. Issuing Agency: NDEP.
Construction and operation of the ESF (portal)	Air Registration Certificate/Operating Permit for the shaft (portal) vents.	Regulation: Clean Air Act (CAA), as amended (42 USC 7401-7642); 40 CFR 50-53, 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 445.401 et seq. Issuing Agency: NDEP.

**APPENDIX B
SITE CHARACTERIZATION MATRIX**

APPLICABLE ACTIVITY	PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY
Discharges to waters of the U.S. including sewage disposal, mine process waste-water, and other minor discharges (e.g., pump tests).	National Pollution Discharge Elimination System (NPDES) Permit.	<p>Regulation: CWA as amended (33 USC 1251 et seq.); 33 CFR 209, 320; 323-330; 40 CFR 110, 112, 116, 117, 121-125, 129, 133, 136, 230, 401 and 403; EO 11735 and 12088; NAC 445.70-445.241.</p> <p>Issuing Agency: NDEP.</p>
Storm water discharges for construction and industrial activities.	National Pollution Discharge Elimination System (NPDES) Permit.	<p>Regulation: CWA as amended (33 USC 1251 et seq.); 33 CFR 209, 320; 323-330; 40 CFR 110, 112, 116, 117, 121-125, 129, 133, 136, 230, 401 and 403; EO 11735 and 12088; NAC 445.70-445.241.</p> <p>Issuing Agency: NDEP.</p>
Construction and operation of drinking water supply for ESF work force.	Drinking water system permit.	<p>Regulation: SDWA (42 USC 300f-300j-10; 40 CFR 124, 141, 143; EO 12088; NAC 445.244-445.420; NRS 445.361.</p> <p>Issuing Agency: NDH.</p>
Design, construction and operation of sewage lagoon or septic-tank system at ESF.	Sanitary sewage disposal permit.	<p>Regulation: NAC 445.179-445.182, 445.750-445.840; NRS 444.650.</p> <p>Issuing Authority: NDCNR.</p>
Impoundments: Sewage lagoons, mine waste water, mud and cutting pits.	State water pollution control permit (Zero-discharge permit).	<p>Regulation: Nevada Water Pollution Control Law (NRS 445.131-445.354).</p> <p>Issuing Agency: NDEP.</p>

APPENDIX C
PERMIT/APPROVALS BACKGROUND AND CHRONOLOGY

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PERMIT/APPROVALS BACKGROUND AND CHRONOLOGY**

PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY	APPLICABLE ACTIVITIES	REQUIREMENTS	TIME FRAME	CURRENT STATUS	KEY ISSUES
Endangered Species (ESA) Compliance	Regulation: ESA (16 USC 1531); 50 CFR 17.11, 17.12, 17.94-96, 50 CFR 13, 222, 227, 402, 424, and 450-453. Issuing Authority: USFWS.	Site Characterization activities conducted in areas populated by the desert tortoise, a threatened species under the ESA.	Consultation with USFWS to ensure that site characterization activities do not result in adverse impacts on any threatened or endangered species.	N/A	Formal consultation with USFWS began on 11/14/89 with submission of Biological Assessment; "No Jeopardy: Biological Opinion issued by USFWS on 05/04/90.	DOE must implement all mitigative measures outlined in USFWS Biological Opinion.
Free-Use Permit	Regulation: Materials Act (30 USC 601-604); 40 CFR 3600 et seq. Issuing Authority: BLM	Extraction and use of sand and gravel for construction of drill pads, etc.	Application to BLM must include a description of the location of the proposed borrow area or areas, the purpose for which the material will be used, and the amount of material that will be extracted.	N/A	Application filed 07/15/89; After consultation with USFWS on the desert tortoise was completed. Permit received 10/26/90 for 270,000 cu yards of material. Permit requested for 40 mile Wash 1/28/92.	None

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Native American Consultations & Protection of Cultural Resources	Regulation: American Indian Religious Freedom Act (42 USC 1996); 36 CFR 296 and 43 CFR 7. Issuing Agency: BIA.	All site characterization activities that directly or indirectly affect sacred, religious or historic sites.	Consultation with Native American leaders to determine whether DOE actions will infringe on the free exercise of their religious rites; and/or cause significant adverse impacts on sites having cultural or religious value; preparation of alternatives to minimize impacts; development of a programmatic agreement describing the steps that will be take to ensure that historic properties of cultural or religious value are identified and avoided and to ensure compliance with AIRFA.	Consultations started 12/01/86.	Programmatic agreement signed on 12/15/88. Implementation has begun. Initial concurrence from BIA 12/01/89	Consultations with BIA are ongoing as site characterization progresses. Site specific surveys are to be undertaken prior to breaking ground.

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National Historic Preservation Act.	National Historic Preservation Act, 16 USC 470 et seq., 36 CFR 60, 61, 63, 65, 67, 68, and 800; E.O. 11593). Issuing Agency: ACHP.	All site characterization activities that directly affect historic or cultural resources.	Applicable requirements have been incorporated into a PA with the ACHP for preservation of historic properties. The PA was signed by a ACHP on 12/22/88. Implementation of the PA stipulations began in 1988 in an effort to satisfy applicable historic, archaeological, and cultural (Native American) regulations. Completed a training video in May 1989.	Consultations started 12/01/86.	Compliance under programmatic agreement for National Historic Preservation Act signed 12/15/89.	
Archaeological and Historic Preservation Act.	Archaeological and Historic Preservation Act 916 USC 469-469c). Issuing Authority: ACHP.	All site activities that directly affect historic or cultural resources.	See comments for National Historic Act above.	Consultations started 12/01/86.	Compliance under programmatic agreement signed 12/15/88.	
Historic Sites Buildings and Antiquities Act as amended.	Historic Sites, Building, and Antiquities Act as amended (16 USC 461-467, 470aa-11) 36 CFR 296; 43 CFR 7. Issuing Agency: ACHP.	All site activities that directly affect historic or cultural resources.	See comments for National Historic Act above.	Consultations started 12/01/86.	Compliance under programmatic agreement signed 12/15/88.	

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Floodplain Executive Order Compliance.	<p>Regulation: EO 11988 Floodplain Management, as amended by EO 12148; 10 CFR 1022.</p> <p>Issuing Authority: DOE</p>	<p>Construction of drill holes, drill pads, trenching, and construction of dirt roads, if located in a floodplain.</p> <p>Covers surface based testing.</p> <p>Separate assessment required for ESF.</p>	<p>Publication of notice of intent (NOI) in the Federal Register, followed by a public comment period and preparation of a floodplain/wetlands assessment, describing measures that may be taken to mitigate adverse effects, and any alternatives to the proposed action. If, after reviewing and evaluating public comments, DOE finds that no practicable alternative to locating the action in a floodplain is available, it must modify the action to minimize potential adverse effects. Finally, whether or not a practicable alternative is found, DOE must publish a statement of findings (SOF) in the Federal Register.</p>	<p>SOF may be issued no earlier than 30 days after NOI.</p>	<p>NOI for surface based testing issued on 02/09/89. The Floodplain Assessment (SOF) was published in the Federal Register on 10/01/91. Finding was no significant impacts for SBT.</p> <p>Floodplain Assessment for ESF is currently being written.</p>	<p>None identified at this time.</p>

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Clean Water Act Section 404 Permit	<p>Regulation: CWA (33USC 1344). 33 CFR 330.</p> <p>Issuing Authority: U.S. Army Corps of Engineers (COE)</p>	<p>Site characterization activities involving the dredging and filling of waters of the U.S.</p> <p>Covers surface based testing.</p>	Compliance with 33 CFR 330, which includes a stipulation that the discharge may not jeopardize a threatened species or destroy critical habitat of such species.	N/A	<p>Status of section 404 permit:</p> <p>Filed on 04/28/89. On 11/15/89, the COE made a preliminary determination that site characterization activities are covered under the nationwide permit. Final authorization was granted on 07/17/90.</p>	None.

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BLM Right-of-Way #N47748.	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1701-1784, 2800; EO 11989 and 11988.</p> <p>Issuing Authority: BLM.</p>	Site characterization activities occurring on BLM lands.	DOE is required to fulfill all requirements of NEPA; any required site specific environmental analyses will be conducted by DOE and coordinated with BLM. No hazardous materials will be disposed of on public lands. Archaeological survey and a threatened and endangered species survey will be conducted by DOE prior to surface disturbance. All desert tortoise found in areas where they are endangered by activities will be removed. Trenches, shafts and bore holes will be marked, fenced or otherwise protected so as not to be a hazard to the public or to wildlife. Potentially useful water resources will not be harmed.	N/A	BLM issued right-of-way for BLM and Nevada Test Site lands 01/08/88.	None.

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USAF Right of Way #N48602.	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1701-1784, 2800; EO 11989 and 11988).</p> <p>Issuing Authority: BLM & USAF.</p>	Site characterization activities occurring on United States Air Force Lands.	DOE is required to fulfill all requirements of NEPA; any required site specific environmental analyses will be conducted by DOE and coordinated with BLM. No hazardous materials will be disposed of on public lands. Archaeological survey and a threatened and endangered species survey will be conducted by DOE prior to surface disturbance. All desert tortoise found in areas where they are endangered by activities will be removed. Trenches, shafts and bore holes will be marked, fenced or otherwise protected so as not to be a hazard to the public or to wildlife. Potentially useful water resources will not be harmed.	N/A	The U.S. Air Force issued Right-of-Way on 10/10/89	None.

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Identification of prime or unique farmland.	Farmland Protection Policy Act (PL 97-98; 7 USC 4201-4209; 7 CFR 658). Issuing Authority: SCS.	Potential for site characterization activities to convert farmlands deemed prime or unique to nonagricultural uses.	DOE must, through consultation with the Soil Conservation Service and the NDCNR, determine whether there is any potential for site characterization to effect either prime or unique farmlands.	N/A.	Consultations completed 03/01/88. No prime or unique farmland identified.	N/A.
Protection of Wetlands	EO11990 Protection of Wetlands (10 CFR 1022) Issuing Authority: USFWS	Those site characterization activities that may modify or destroy wetlands.	DOE must determine if site characterization will adversely affect wetlands.	N/A	Completed consultation with USFWS on 03/01/88. No wetlands present. DOE will consult with USFWS on offsite site characterization activities as needed.	N/A

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Land Withdrawal	<p>Regulation: Federal Land Policy and Management Act of 1976 (PL 94-579; 43 USC 1714; 43 CFR 2300).</p> <p>Issuing Authority: BLM.</p>	Removal of land from public domain and from leasing under mineral leasing laws in order to maintain the physical integrity of the subsurface environment for scientific studies during site characterization.	The withdrawal will expire 12 years from the effective date of this order unless, as a result of a review conducted before the expiration date pursuant to section 204 (f) of the Federal Land Policy and Management Act, the Secretary of Interior determines that the withdrawal shall be extended.	<p>Effective Date: 09/26/90. Expires 09/26/2002.</p> <p>Request for extension should be reviewed by the Secretary of the Interior at least 2 years before expiration date of the withdrawal.</p>	Land Withdrawn	Request for extension should be made prior to 09/26/2000.
RCRA Generator ID Number	<p>Regulation: RCRA (42 USC 6901-6987); 40 CFR 124, 240-247, 260-264, 266, 270, 271, 280; NRS 459.400 et seq., NAC 444.570-444.748 and 444.8500-444.9335.</p> <p>Issuing Authority: NDEP.</p>	Generation, handling and management of hazardous wastes generated onsite.	During site characterization, DOE must identify the amount of hazardous waste generated at Yucca Mountain on a monthly basis and comply with the State of Nevada's requirements for managing, storing and disposing of the wastes onsite.	N/A	<p>RCRA Generator ID number assigned 06/27/89.</p> <p>#NV 789-009-0023.</p>	None identified at this time.

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<p>Underground Injection Control (UIC) Permit for Surface Based Testing.</p>	<p>Regulation: Safe Drinking Water Act (SDWA), as amended (42 USC 300[h][Part C]); 40 CFR 124, 144-147, 149; NRS 445.131-445.354; NAC 1-96.1.</p> <p>Issuing Authority: NDEP.</p>	<p>Injection of tracers into test wells during surface-based testing.</p>	<ul style="list-style-type: none"> - Description /location of each well. - Map of well field. - Corrective Action Plan. - Narrative Report with geologic cross section and isopack map. - Construction plans/drawings. - Drill logs. - Operating data-rates and volume of fluids injected, injection pressure, source of injected media with chemical/biological characteristics, pressure changes, fluid displacement and movements. - Chemical analysis of fluids in receiving formations. - Injection procedures. - Well abandonment plan. 	<p>Minimum of 4 months, with 1-2 months added to respond to requests for additional information. If a public hearing is held, total time for processing the application may exceed 12 months.</p>	<p>Application for C-complex wells filed with NDEP on 04/06/89; additional information requested by NDEP on 06/02/89; application returned to DOE on 12/26/89.</p> <p>Permit issued on 07/17/91.</p> <p>Application to amend permit filed on 12/12/91. Permit Number NEV 89031.</p>	<p>Application processing time:</p> <ul style="list-style-type: none"> - 30 days to determine completeness of application. - 30 days to review additional information. - 30 day public notice, hearing may be held in this period. <p>Report quarterly:</p> <ul style="list-style-type: none"> - Results of chemical analysis. - Total volume of fluid produced or discharged. - Total volume injected. - List of all production, injection, and test wells within 2 miles of project area utilized by permittee. <p>Report Annually:</p> <ul style="list-style-type: none"> - Results of tracer and hydrologic tests.

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<p>Air Registration Certificate for Land Disturbance.</p>	<p>Regulation: CAA, as amended (42 USC 7401-7642); 40 CFR 50-53, 58, 60-61; EO 12088; NRS 445.401 et seq; NAC 445.430-445.995.</p> <p>Issuing Authority: NDEP.</p>	<p>Surface disturbances of more than 20 acres, including construction of roads and drill pads during surface-based testing and ESF site preparation.</p> <p>Each point source of emissions require a certificate.</p>	<ul style="list-style-type: none"> - Plot plan showing surface facilities and stationary sources. - USGS map showing location of facility and property boundary. - Description of plant construction and operation. - Methods of dust control. - Table listing for each stationary emission source. 	<p>Within 5 working days after receiving an application, NDEP must make a preliminary determination to issue or deny the certificate. After a 30 day public comment period but within 75 days after receiving adequate information, NDEP must make a final decision to issue or deny the certificate.</p>	<p>Application filed with NDEP on 01/20/88; letter sent by DOE to NDEP on 07/11/89 requesting immediate action; application returned to DOE on 12/26/89.</p> <p>Application resubmitted 03/20/91. Permit received 06/12/91.</p>	<p>Public hearings may be held within public notice period.</p> <p>After the Registration Certificate is issued, the permittee must apply for an Operating Permit within 120 days.</p> <p>Reporting Requirements: - Quarterly Reports.</p> <p>NDEP has determined that DOE has disturbed over 20 acres to date. Consequently, further site characterization activities will have to be permitted.</p>

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<p>Special Handling Permit for Nevada Protected Species.</p>	<p>Regulation: NRS 503.585; NAC 503.010-503.090.</p> <p>Issuing Authority: Chief Game Warden for the State of Nevada. NDOW</p>	<p>Studies to monitor and mitigate any potentially significant adverse impacts of site characterization on terrestrial ecosystems; including studies by EG&G to determine the density and distribution of the desert tortoise in the vicinity of Yucca Mountain, their habitat preferences, dispersal behavior, and the presence of symptoms of upper respiratory disease syndrome.</p>	<p>Application to the Nevada Department of Wildlife must include a detailed study plan.</p> <p>EG&G is responsible for obtaining necessary permits for collecting as part of subcontract agreement with YMPO.</p>	<p>N/A</p>	<p>EG&G;s special handling permit for the desert tortoise expired on 06/30/90.</p> <p>Permit was reissued on 08/27/90 *amended 02/26/91 to include spotted bat studies.</p> <p>Reissued 07/02/91</p>	<p>N/A</p>

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Groundwater Appropriation Permit.	<p>Regulation: NRS 533.325-533.540 and 534.010-534.190.</p> <p>Issuing Authority: Nevada State Engineer (NSE).</p>	Use of approximately 145 acre feet of water from well J-13 during surface-based testing and ESF site preparation, which included dust suppression, drilling, and trenching.	<ul style="list-style-type: none"> - Purpose of well. - Location by public survey. - Name and address of person responsible for plugging the well. - Deviations from the well construction requirements. - Depth of borehole. - Diameter of borehole. - Name and address of person collecting data. - Estimated starting and completion dates. - A plot map showing actual location of the well must be submitted within 30 days after completion of the well. - Amount of water to be discharged to the ground surface. - Other information required by the State Engineer. 	Permit takes 3 to 12 months to process.	<p>Application filed on 07/12/88 and returned to DOE on 12/26/89.</p> <p>Water monitoring program approved in consultation with NPS to address issues raised by its protest, filed 01/03/89. Permit application refiled 03/20/91. Public Hearings held 09/24/91 to 10/04/91. Permit received 3/2/92 for 94.83 acre feet of water per year.</p>	<p>Public hearing time required to provide that water is being put to beneficial use.</p> <p>Reporting requirements:</p> <ul style="list-style-type: none"> - Record water withdrawn daily. - Record types and places of use. - Report quarterly to State Engineer.

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State permits for capture or removing protected species	Regulation: NRS 501.105 to 501.110; NAC 503.010-503.080 Issuing Authority: NDOW.	Capture, destruction, or removal of a state protected species.	EG&G consult with the NDOW concerning protected animals, and will seek to obtain permits for capturing, removing, or destroying protected species. The desert tortoise and the spotted bat, classified by the State as rare, are the only State-protected animals found on Yucca Mountain.	N/A.	Because EG&G is DOE's primary subcontractor for ecological studies at Yucca Mountain, EG&G has and will obtain all necessary permits from the NDOW. Permit issued 07/02/91.	N/A.
Approval to remove cacti/yucca plants from BLM Right-of-Way.	Regulation: Nevada State Vegetation Statutes (NRS) 527.05 to 527.100. Issuing Authority: NDOW/Property Owner.	Removal of cacti or yucca plants along BLM Right-of-Way.	Construction activities associated with the project will result in the loss at some locations of several species of cactus and one species of yucca plant. Written permission for these losses on BLM lands requested from the Nevada State Forester Fire Warden.	N/A	Completed Received authorization to remove plants along BLM ROWR N47748 on 07/11/89. State of Nevada consulted 02/16/88. Nevada relinquished authority to BLM.	N/A

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UIC Permit for the ESF.	<p>Regulation: SDWA as amended (42 USC 300 [h][part C]); 40 CFR 124, 144-147, 149; NRS 445.131-445.354; NAC 1-96.1.</p> <p>Issuing Authority: NDEP.</p>	Injection of tracers into test wells during ESG operation.	Application to NDEP must demonstrate that the injection will not endanger any source of drinking water. Must include information concerning location of ESF; a report on the geology/hydrology of the area; plans and drawings for facility types, rates and volumes of material to be injected; injection pressures; and abandoning the wells.	Application process takes a minimum of 4 months, with 1-2 months added to respond to requests for additional information. If a public hearing is held, total time for processing the application may exceed 12 months.	Awaiting information on the type of tracers to be used and the method of injection.	N/A.

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<p>Air Registration Certificate/ Operating Permit for the Gravel Screening Plant.</p>	<p>Regulation: Clean Air Act (CAA), as amended (42 USC 7401-7642); 40 CFR 50-53, 58 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 445.401 et seq.</p> <p>Issuing Authority: NDEP.</p>	<p>Construction and operation of the gravel screening plant to be used in construction of ESF.</p>	<p>Application to NDEP must include adequate empirical data for the source of air contaminants, along with a plot plan of the facility or facilities, a USGS map showing facility(s) and/or areas of disturbance, and any other information deemed necessary to make an independent air quality impact assessment. A site inspection by NDEP is also required.</p>	<p>Within 5 working days after receiving an application, NDEP must make a preliminary determination to issue or deny the certificate. After a 30 day public comment period, but within 75 days after receiving adequate information, NDEP must make a final decision to issue or deny the certificate. In addition, there is a 180 day limit to demonstrate compliance.</p>	<p>Awaiting design information necessary to prepare the permit application.</p>	<p>Report quarterly: Air quality results.</p>

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<p>Air Registration Certificate/ Operating Permit for the Batch Cement Plant.</p>	<p>Regulation: Clean Air Act (CAA), as amended (42 USC 7401- 7642); 40 CFR 50- 53, 58 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 445.401 et seq.</p> <p>Issuing Authority: NDEP.</p>	<p>Construction and operation of the Cement Batch Plant.</p>	<p>Application to NDEP must include adequate empirical data for the source of air contaminants, along with a plot plan of the facility or facilities, a USGS map showing facility(s) and/or areas of disturbance, and any other information deemed necessary to make an independent air quality impact assessment. A site inspection by NDEP is also required.</p>	<p>Within 5 working days after receiving an application, NDEP must make a preliminary determination to issue or deny the certificate. After a 30 day public comment period, but within 75 days after receiving adequate information, NDEP must make a final decision to issue or deny the certificate. In addition, there is a 180 day limit to demonstrate compliance.</p>	<p>Awaiting design information necessary to prepare the permit application.</p>	<p>Report quarterly: Air quality results.</p>

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<p>Air Registration Certificate/ Operating Permit for the Shaft (portal) vents.</p>	<p>Regulation: Clean Air Act (CAA), as amended (42 USC 7401-7642); 40 CFR 50-53, 58 60-61, 81.300-81.400, 124; EO 12088; NAC 445.430-445.995; NRS 445.401 et seq.</p> <p>Issuing Authority: NDEP.</p>	<p>Construction and operation of the ESF (portal).</p>	<p>Application to NDEP must include adequate empirical data for the source of air contaminants, along with a plot plan of the facility or facilities, a USGS map showing facility(s) and/or areas of disturbance, and any other information deemed necessary to make an independent air quality impact assessment. A site inspection by NDEP is also required.</p>	<p>Within 5 working days after receiving an application, NDEP must make a preliminary determination to issue or deny the certificate. After a 30 day public comment period, but within 75 days after receiving adequate information, NDEP must make a final decision to issue or deny the certificate. In addition, there is a 180 day limit to demonstrate compliance.</p>	<p>Awaiting design information necessary to prepare the permit application.</p>	<p>Report quarterly: Air quality results.</p>

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<p>National Pollution Discharge Elimination System (NPDES) Permit.</p>	<p>Regulation: CWA as amended (33 USC 1251 et seq.); 33 CFR 209, 320; 323-330; 40 CFR 110, 112, 116, 117, 121-125, 129, 133, 136, 230, 401 and 403; EO 11735 and 12088; NAC 445.70-445.241.</p> <p>Issuing Authority: NDEP.</p>	<p>Discharges to waters of the U.S. including sewage disposal from the mine process waste-water; and other minor discharges (e.g., pump tests).</p>	<ul style="list-style-type: none"> - Detailed design of discharge system/ - Description of waste water treatment process. - Schematic water flow within facility. - Characterization of effluent. - Number of employees operating plant. - Principle activity. - Principle process producing water. - Discharges. - Months discharges occur. - Types of discharges. <p>Chemical/physical composition of waste water effluent.</p>	<p>Application must be submitted at least 180 days before discharge; public notice of application is required along with a 30-day comment period if there is to be a public hearing. Total time for processing the application may exceed 12 months.</p>	<p>Awaiting design information necessary to prepare the permit application.</p>	<p>Report quarterly:</p> <ul style="list-style-type: none"> - Total volume of fluid discharge. - Results of chemical analyses. - List of production wells used. <p>Report Annually:</p> <ul style="list-style-type: none"> - Results of discharge data collected.

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National Pollution Discharge Elimination System (NPDES) Permit.	<p>Regulation: CWA as amended (33 USC 1251 et seq.); 33 CFR 209, 320; 323-330; 40 CFR 110, 112, 116, 117, 121-125, 129, 133, 136, 230, 401 and 403; EO 11735 and 12088; NAC 445.70-445.241.</p> <p>Issuing Authority: NDEP.</p>	Storm water discharges for construction and industrial activities.	<ul style="list-style-type: none"> - Detailed design of discharge system/ - Description of waste water treatment process. - Schematic water flow within facility. - Characterization of effluent. - Number of employees operating plant. - Principle activity. - Principle process producing water. - Discharges. - Months discharges occur. - Types of discharges. <p>Chemical/physical composition of waste water effluent.</p>	Application must be submitted at least 180 days before discharge; public notice of application is required along with a 30-day comment period if there is to be a public hearing. Total time for processing the application may exceed 12 months.	Permit may be required for construction activities impacting areas greater than five acres and for certain classes of industrial activity. In addition, a permit may be required for site characterization and ESF activities.	N/A.

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Drinking water system permit.	<p>Regulation: SDWA (42 USC 300f-300j-10); 40 CFR 124, 141, 143, 149; EO 12088; NAC 445.244-445.420; NRS 445.361.</p> <p>Issuing Authority: NDH.</p>	Construction and operation of drinking water supply for ESF work force.	<p>All public drinking water supplies must meet the requirements of the NAC 445.244-445.262 and the National Primary Drinking Water Regulation as set forth in 40 CFR 141. Secondary standards for chloride, color, copper, foaming agents, Fe, Mg, Mn, odor, pH sulfate, TDS and Zn are established in the NAC. The State Health Officer within NDH requires that all plans and specifications for a public drinking water-supply system be approved before a written permit can be issued for construction and operation of the system. The SHO will sample and test the water when the system becomes operational to ensure that it meets all Federal and State water quality standards.</p>	N/A.	Awaiting design information necessary to prepare the permit application.	N/A.

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PERMIT OR APPROVAL	REGULATION AND ISSUING AGENCY	APPLICABLE ACTIVITIES	REQUIREMENTS	TIME FRAME	CURRENT STATUS	KEY ISSUES
Sanitary sewage disposal permit.	<p>Regulation: NAC 445.179-445.182; 445.750-445.80; NRS 444.650.</p> <p>Issuing Authority: NDCNR.</p>	Design, construction, and operation of sewage lagoon or septic-tank system at ESF.	NDCNR requires that complete engineering plans and specifications for the disposal of sanitary wastes and sewage be submitted to the agency for approval. These materials must be prepared by an engineer authorized under State law to prepare such plans. Before permit issuance, the location must be approved by local government. Design of the system must ensure compliance with NAC 445.140-445.174.	N/A.	Awaiting design information to prepare permit application.	N/A.
State water pollution control (Zero Discharge Permit).	<p>Regulation: Nevada Water Pollution Control Law (NRS 445.131-445.354)</p> <p>Issuing Authority: NDEP.</p>	Impoundments: sewage lagoons, mine waste water, mud and cuttings pits.	NDEP requires that discharges of pollutants into the subsurface be controlled if there is the potential for contamination of ground water supplies. Water impoundments are evaluated by the NDEP to determine if seepage from these impoundments could affect the quality of ground water.	Process for permit application is similar to that of the NPDES application under the Clean Water Act.		

I-327426

MAY 14 11 47 AM '00

April 29, 1992

Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Attention: Mr. John P. Roberts
Acting Associate Director, Office of Systems
and Compliance

Dear Mr. Roberts:

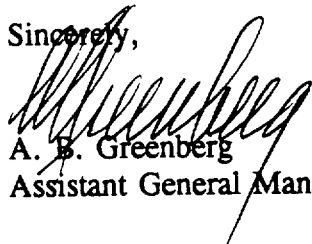
Subject: Regulatory Compliance and Permit Status Report for
Site Characterization for the Period April 1992

Jerry Parker requested the M&O to prepare the Regulatory Compliance
and Permit Status Report for Site Characterization. This was identified
among the deliverables under WA # DB/01042/RW19, page 8, item 5a.
The M&O prepares the Regulatory Compliance and Permit Status
Report for site Characterization on a monthly basis.

Attached is the M&O's monthly report for April 1992.

If you have any questions, please call Jim Maupin at (703) 204-8865.

Sincerely,



A. B. Greenberg
Assistant General Manager, Systems

ABG:JM:cm

DIXON
SCHLICK
JONES-S
EIDER
GRASSMEIER
BEST
FISHER
GERTZ
SOHANSON

Enclosure: Regulatory Compliance and Permit Status Report for Site
Characterization for the Period April 1992

cc: J. Parker
D. Valentine
W. Dixon LV

5/14/92
RESULY
MCOANN
JACOBS
PYSIO



EG&G ENERGY MEASUREMENTS

Santa Barbara Operations

EG&G ENERGY MEASUREMENTS, INC., 101 CONVENTION CENTER DRIVE, LAS VEGAS, NEVADA 89109

TEL: 702-794-7463

I-326175 1r

April 9, 1992
LV92-RAG-088
WBS 1.2.5.4.7
NQA

Kathleen F. Grassmeier, Chief
Project and Operations Control Division
Yucca Mountain Project Office
DOE Field Office, Nevada
P. O. Box 98518
Las Vegas, NV 89193-8518

PROGRESS REPORT - MARCH 1992

Attached is the March 1992 progress report on biological studies and support activities conducted by EG&G/EM for the Yucca Mountain Project. Please contact me (293-7762) or Kent Ostler (794-7474) if you have questions regarding this report.

EG&G Energy Measurements, Inc.

for Thomas P. O'Farrell, Manager
Environmental Studies Project
611 Avenue H
Boulder City, NV 89005

mak

Enclosure

cc: W. Dixon, DOE/YMP
D. Sorensen, SAIC
P. Niles, SAIC

DIVISION Dixon
cc: 1021-7470
cc: Dyer / Schlick
cc: Ryder / Grassmeier
cc: Best / Brodsky
cc: Gandi / Phillips
cc: Wilton
cc: S. Jones
cc: McCann / SAIC

REC'D IN YMP Certz 4/0
4/14/92

APR 14 9 19 AM '92

ENCLOSURE 2

**YUCCA MOUNTAIN PROJECT
BIOLOGICAL RESOURCES PROGRAM
MONTHLY PROGRESS REPORT
MARCH 1992**

Summary of Work Accomplished During Report Period

EG&G Energy Measurements (EG&G/EM) conducted work for the Biological Resources task (WBS 1.2.5.4.7) for the Project Office. Activities included conducting preactivity surveys; continuing site characterization effects studies, support studies for the radiological monitoring program, desert tortoise studies, and habitat reclamation studies; development of work instructions and study designs for new studies; and responding to requests for biological support by Project Office.

Monitoring and Mitigation

- ✓ ● EG&G/EM biologists examined and excavated two desert tortoise burrows near Exile Hill prior to the start of construction activity for the Midway Valley rock and soil test pits and North Portal Facility. Both burrows were empty. All tortoises in this area were monitored during construction and excavation activity.
- The preactivity survey report for Neutron Boreholes 15-16 and 36-17 (Request #91-023b) was sent to the Project Office. The movement of equipment onto and off of drill pads was monitored for boreholes 15, 16, and 17.
- A preactivity survey was conducted for a USGS stream monitoring station at Stateline, CA (part of original request #1990-1143).
- EG&G/EM met with the Project Office (D. Williams) to determine the depth of topsoil to salvage at the rock and soil test pits in Midway Valley and at the North Portal site. It was determined that 50-100 cm of soil could be salvaged.
- EG&G/EM met with LANL, RSN, REECo, YMP, SAIC, DRI, and LLNL personnel to look at potential conflicts of proposed drilling activities at Busted Butte.
- An on-site biologist was provided to monitor Project activities at Cima Dome in California.
- No adverse impacts or effects were documented in March during surveys or monitoring activities.
- Additional EG&G/EM staff scientists were trained to conduct preactivity surveys.

Habitat Reclamation

- The study design for reclamation trials on site 1 (north end of Yucca Ridge) was developed. The site was ripped and all available topsoil was distributed. Study plots were located, staked, and cleared of existing vegetation.
- The reclamation sites #2 (on the southern end of Yucca Mountain ridge) and #4 (north end of Midway Valley) were prepared by ripping the soil to reduce compaction.
- Planting of containerized transplants was completed at the Forty-Mile Wash site (#3). A water-repelling treatment also was applied on the desert strip treatments at this site.
- The weather data from the computerized collector at the Forty-Mile Wash site was downloaded to a computer.

Site Characterization Effects Program

- Weather and soil moisture and temperature data were collected weekly at the 48 ecological study plots (ESPs).
- Traffic count data were collected weekly at 9 locations. Counters were moved to new locations each week.
- Data entry and verification of the vegetation density data were completed.
- Invertebrate specimens were prepared for shipment to taxonomic experts for identification to the species level.
- Line and belt transects were established on 19 ESPs in the transition zone between the adjacent disturbances and undisturbed habitat to monitor disturbance effects on vegetation. Soil moisture and temperature cells also were placed in the transition zones of each of these ESPs.
- The collectors (petri dishes lined with filter paper) used for sampling dust were changed on all 48 ESPs.
- Staff scientists received their annual refresher training for trapping small mammals.

Radiological Monitoring Program

- EG&G/EM received a revised State of Nevada animal handling permit allowing the capture and marking of Gambel's quail. Ten quail were captured and fitted with solar assisted radio transmitters. Four were radiomarked in Forty-Mile Wash in the vicinity of J-13 Well and H-Road. Five were radiomarked at the south end of Exile Hill, and one near the subdock.
- Predator surveys were completed at Yucca Mountain and in Crater Flats.

Desert Tortoise Program

- No tortoises other than # 423 have been relocated or displaced. EG&G/EM biologists monitored all the tortoises near the North Portal construction area on Exile Hill.
- The relocated tortoise (# 423) was monitored in its new burrow. A rock was placed in front of its burrow to prevent it from leaving. The rock was removed in late March, and the tortoise moved approximately 160 m from the burrow.
- Corrals were placed around burrows of hibernating tortoises with dead radio transmitters. The corrals were used to prevent tortoises from moving before their transmitters could be replaced. Transmitters were replaced on 12 tortoises after they emerged from hibernation. Two tortoises escaped with dead transmitters. The corral fell at one burrow due to weather conditions and another had to be removed because of restricted access due to military activity.
- All radiomarked tortoises at Yucca Mountain and the control area were located and monitored each week during the month. Starting in mid-March, all tortoises were located twice each week.
- One new tortoise (MCL = 130 mm) was found and radiomarked on the south end of Exile Hill.
- One hundred-twenty-eight tortoises have been marked for the Yucca Mountain Site Characterization Project. Eighty-seven radiomarked tortoises are being monitored.
- EG&G/EM received a revised federal handling permit allowing the handling of tortoise eggs.

- Two tortoise nests were located during a follow-up of the reproduction pilot study. One nest, in Midway Valley east of the Test Pits, contained only egg-shell fragments. The second nest was near the north portal area. The nest contained four cracked eggs containing partially developed tortoises and one hatchling tortoise. A transmitter was placed on the tortoise and placed in a separate burrow. This tortoise is <50 m from a proposed Test Pit. EG&G/EM biologists will monitor this tortoise and relocate or move it if necessary.
- Annual training was conducted for scientific staff involved in studying desert tortoises.

Support Items

- Sent the February monthly report of Yucca Mountain Site Characterization Project activities and accomplishments to the Project Office. Weekly reports of activities were submitted to the Project Office.
- Attended meetings to discuss the space requirements and facility needs for a new Environmental support building on the NTS and the coordination and share soils information with other project participants.
- EG&G/EM met with SAIC (G. McNeill) to discuss modifications to the Terrestrial Ecosystems display at the Field Operation Center.
- Provided a response to Project Office (K. Grassmeier) regarding a letter from the State of Nevada (B. Loux) on reclamation trials and the interaction of the reclamation documents.
- Prepared documentation for the POCD mid-year financial review.



EG&G ENERGY MEASUREMENTS

Santa Barbara Operations

EG&G ENERGY MEASUREMENTS, INC., 101 CONVENTION CENTER DRIVE, LAS VEGAS, NEVADA 89109

TEL: (702)794-7463

dk T-327028

May 8 2 21 PM '00

May 7, 1992
LV92-RAG-100
WBS 1.2.5.4.7
NQA

Kathleen F. Grassmeier, Chief
Project and Operations Control Division
Yucca Mountain Project Office
DOE Field Office, Nevada
P. O. Box 98518
Las Vegas, NV 89193-8518

PROGRESS REPORT - APRIL 1992

Attached is the April 1992 progress report on biological studies and support activities conducted by EG&G/EM for the Yucca Mountain Project. Please contact me (293-7762) or Kent Ostler (794-7474) if you have questions regarding this report.

EG&G Energy Measurements, Inc.

W. Kent Ostler

for Thomas P. O'Farrell, Manager
Environmental Studies Project
611 Avenue H
Boulder City, NV 89005

mak

Enclosure

cc: W. Dixon, DOE/YMP
D. Sorensen, SAIC
P. Niles, SAIC

Dixon
Dyer/Schlick
Ryder/Grassmeier
Best/Phillips
Jones
Phett 307 5/8/92
Hutton
Loni/Gerb -640
Brodsky
McCann
SAIC
5/8/92

**YUCCA MOUNTAIN PROJECT
BIOLOGICAL RESOURCES PROGRAM
MONTHLY PROGRESS REPORT
APRIL 1992**

Summary of Work Accomplished During Report Period

EG&G Energy Measurements (EG&G/EM) conducted work for the Biological Resources task (WBS 1.2.5.4.7) for the Project Office. Activities included conducting preactivity surveys; continuing site characterization effects studies, support studies for the radiological monitoring program, desert tortoise studies, and habitat reclamation studies; development of work instructions and study designs for new studies; and responding to requests for biological support by Project Office.

Monitoring and Mitigation

- EG&G/EM received four requests to conduct preactivity surveys at 69 different sites; 1) 15 REM/EM stations (# 92-006), 2) the Busted Butte pavement study site (# 92-007b), 3) 52 rock and soil test pits (# 92-008b), and 4) neutron borehole N27 (# 92-023b). Two of the 15 REM/EM are new sites for small mammal collection related to changes (Alternative 30) in the Exploratory Studies Facilities. EG&G/EM is responsible for marking the boundaries of these sites before surveys are conducted. The new site for Plot # 14 was marked south of the North Portal site in April. The second site, near the proposed South Portal, has not been marked. This site will be marked in early May.
- Two surveys were completed, and four reports were submitted to Project Office in April. Surveys were completed and reports submitted for neutron borehole N27 (# 92-023b) and 12 of the 15 REM/EM stations (# 92-006). The survey report was submitted for the USGS surface water monitoring sites at Eagle Mountain and Stateline, California (Request #1990-1143). The report for this survey was formatted, at Project Office request, according to Bureau of Land Management specifications for inclusion in an Environmental Assessment. A letter also was submitted to Project Office describing the on-site tortoise monitoring activities in March at the USGS Cima Dome study site in California.
- EG&G/EM provided on-site reclamation and biological expertise at three sites. Reclamation scientists were provided to monitor soil-moving work along the access route to neutron borehole N64 and to give advice on how to protect existing topsoil stockpiles and where to place drill cuttings at the UZ16 borehole. A biologist was provided to assist in determining the best location for the SRG1 drill pad and access route.

Habitat Reclamation

- The seeding and mulching was completed on the reclamation trial plots at the north end of Yucca Mountain. This site is being used to test effects of topsoil depth.
- Seedling density was measured on 35 reclamation trial plots at Forty-Mile Wash study site.
- Reclamation trial plots at the Forty-Mile Wash study site scheduled to receive supplemental water were irrigated.
- Perennial and annual plant seedling densities were measured on one permanent plant succession study plot.

Site Characterization Effects Program

- Weather and soil moisture and temperature data were collected weekly at the 48 ecological study plots (ESPs). As soil moisture levels approach zero and become unmeasurable at the three depths (15, 30, and 45 cm), data will be collected monthly instead of weekly. The soil moisture levels have nearly reached unmeasurable levels on some plots. Precipitation data were summarized for the period December 1991 through March 20, 1992.
- Traffic count data were collected weekly at eight locations. Counters were moved to new locations each week. The collectors (petri dishes with filter paper) used for measuring dust deposition were changed on all ESPs.
- The vegetation field studies were started. The scientific staff was given their annual training on plant identification and methods used to collect and record plant density, cover, and production data. Perennial and annual plant seedling densities were measured on 13 ESPs. Plant cover was measured on 22 ESPs. Plant cover measurements in the *Larrea-Ambrosia* vegetation association have been completed. All cover measurements in the *Larrea-Lycium-Grayia* association have been completed except for two study plots.
- Plywood covers on the reptile pitfall buckets were replaced with plastic lids to better ensure that animals cannot fall or crawl into the buckets during non-sampling periods.
- Small mammal data from four of eight ESPs trapped in March and April were entered into computer databases.

Radiological Monitoring Program

- Attempts were made to locate all radiomarked quail once each week. One to three quail usually could not be located. Several quail radiomarked in Midway Valley near Exile Hill have moved more than 1 km between weekly relocations. However, all movements have been within Midway Valley, and no movement has been documented between the Forty-Mile Wash trap sites and the Midway Valley sites. One radiomarked female in Sever Wash near Forty-Mile Wash is nesting and incubating a clutch of 13 eggs. One mortality occurred. A radiomarked male quail first captured in Forty-Mile Wash was found about 300 m north of H-Road in Forty-Mile Wash during the last week of April. The remains (both legs, including leg bands; feathers; a few bones; and the transmitter) suggests that it was killed by a predator. This bird was known to be alive the week before.
- Small mammals were trapped and collected on the eight radiological monitoring plots. Both long-tailed pocket mice and Merriam's kangaroo rats are abundant this year because of good reproduction last year. Therefore, specimens of both species were collected on six plots (#'s 5, 12, 14, 37, 59, 69). One sample of Merriam's kangaroo rats was collected from the control plot (# 58) in Crater Flats, and one sample of long-tailed pocket mice was collected from Plot #2 in Drill Hole Wash. This completes the spring collection of small mammal specimens for the Radiological Monitoring Program. SAIC (K. Prince) was notified that samples were in the freezer and ready for analysis.

Desert Tortoise Program

- ✓ ● Three tortoise mortalities were documented in April. A dead, unmarked tortoise was found on H-Road between Exile Hill and Roy Hill. The tortoise had been run over by a vehicle. This is the first incidental take for YMP. EG&G/EM (T. O'Farrell) contacted U.S. Fish and Wildlife Service on April 16. A report of the incident was sent to the Project Office. A marked tortoise (# 200) was found dead east of Exile Hill. The plastron was intact but only several pieces of the carapace remained. Predation by either a mammalian or avian predator is the suspected cause of death. This tortoise was originally radiomarked in 1991. The third mortality was tortoise # 518 located on the south end of Exile Hill. It appears that the tortoise also was killed by a predator.
- The tortoise (# 423) relocated from Midway Valley was monitored throughout the month after it was released from its burrow. During the month of April, the tortoise moved south from the relocation burrow crossed H-Road west of the Canyon Substation. The tortoise now is about 3.6 km from its release site and continuing to move south.
- Tortoises near the Midway Valley test pits and trenching activities were monitored during construction activity. No tortoises were displaced or relocated in April because of these activities.

- Radiomarked tortoises were located every week. Most tortoises were located twice each week. Two radiomarked tortoises are missing. The radio transmitters were changed on six tortoises (#'s 227, 558, 411, 503, 418, and 508). Five tortoises still have working transmitters that need replacing.
- Six new tortoises were found in April. One was radiomarked in the vicinity of the proposed South Portal facilities. Three tortoises were found in the control area. All three were marked, but only one (female) was radiomarked. One tortoise was found north of the Area 25 camp near the former landfill site. This tortoise was marked only. One tortoise was found in Drill Hole Wash during the Public Outreach tours on Saturday, April 25. This tortoise was radiomarked.
- An Impact Mitigation Study was started for the South Portal Exploratory Studies Facilities. Seventy-four ha had been searched by the end of April. Searches will continue in May. Only one tortoise has been found during the searches. This tortoise was radiomarked.
- Raven surveys were conducted at Yucca Mountain and in the control area northwest of Crater Flats. Each survey route was monitored on five different days. The raven nest on the Sample Management Facility was monitored. The nest contained seven eggs in early April. During the third week in April the nest contained six nestlings.

Support Items

- The March monthly report of Yucca Mountain Site Characterization Project activities and accomplishments was sent to the Project Office. Weekly reports of activities in April were submitted to the Project Office.
- EG&G/EM provided the following input at the Project Offices request; 1) Planning and Control System (PACS) financial information for FY93, 2) scopes of work for the new Work Breakdown Structure for Terrestrial Ecosystems, 3) list of environmental laws and regulations that direct or require ecosystem monitoring and reclamation, 4) input for the Annual Environmental Report, and 5) written response to comments by the State of Nevada on the Reclamation Implementation Plan and the Reclamation Feasibility Trials.
- EG&G/EM met with SAIC (G. McNeill) to discuss modifications to the Terrestrial Ecosystems display at the Field Operation Center.
- EG&G/EM attended a meeting with the Project Office, TRW and other YMP contractors to integrate needs and time requirements for obtaining environmental permits.

- **EG&G/EM met with Project Office (W. Dixon, G. Ryder, and K. Grassmeier) for a mid-year financial and project status review.**
- **DOE/YMP approved the Yucca Mountain Biological Resources Monitoring Program FY91 Annual Report with minor changes requested. Changes were made, and the report was distributed.**
- **A description and slides were provided of the YMP Habitat Reclamation Program to SAIC (C. Binzer). The slides and text will be used for the YMP public update meetings in May to illustrate the establishment of the Forty-Mile Wash reclamation trial plots.**
- **EG&G/EM reviewed and updated the YMP Technical Database Parameter Dictionary for the Terrestrial Ecosystems component.**
- **EG&G/EM assisted with the Public Outreach tour on Saturday, April 25.**



I-327329 *STG*
AMERICA

United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 425
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO:

May 11, 1992

WBS: 1.2.9.1.1
QA: N/A

Carl P. Gertz, Project Manager
Yucca Mountain Project Office
U.S. Department of Energy
P.O. Box 98608
Las Vegas, Nevada 89193-8608

SUBJECT: U.S. Geological Survey (USGS) Detailed Monthly Status Report for March, 1992

Dear Carl:

Enclosed is the USGS detailed monthly status report for March, 1992. If you have any questions or comments, please contact Raye Ritchey at FTS 776-0517.

Sincerely,

Raye E. Ritchey

for Larry R. Hayes
Technical Project Officer
Yucca Mountain Project Branch
U.S. Geological Survey

Attachment

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MAY 18 10 32 AM '92

Gertz
Simecka
Dyer
Dixon
Lotui
Broderick
J. Jones
Hilcher
Wallace) *RW-22*

5/18/92

Gertz
STG

ENCLOSURE

cc: D. Appel, USGS/Denver
T. Blejwas, SNL/Albuquerque
R. Bullock, RSN/Las Vegas
D. Campbell, USBR/Denver
R. Craig, USGS/Las Vegas
W. Dudley, USGS/Denver
D. Gillies, USGS/Denver
R. Herbst, LANL/Los Alamos
V. Iorii, DOE/Las Vegas
W. Clark, LLNL/Livermore
R. Pritchett, REECo/Las Vegas
R. Ritchey, USGS/Denver
E. Roseboom, USGS/Reston
J. Shaler, SAIC/Golden
N. Trask, USGS/Reston
YMP-USGS Local Records Center 1.1.02

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