

**U.S. DEPARTMENT OF ENERGY  
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**NUCLEAR WASTE TECHNICAL REVIEW BOARD  
FULL BOARD MEETING**

**SUBJECT: STATUS OF STATE PERMIT  
APPLICATIONS**

**PRESENTER: CARL GERTZ**

**PRESENTER'S TITLE  
AND ORGANIZATION: ASSOCIATE DIRECTOR FOR GEOLOGIC DISPOSAL AND  
PROJECT MANAGER  
YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT  
LAS VEGAS, NEVADA**

**PRESENTER'S  
TELEPHONE NUMBER: (702) 794-7920**

**DALLAS, TX  
APRIL 7-8, 1992**

# Status of Permitting

- **Permitting process overview**
- **General permitting needs**
- **Permits for exploratory studies facility**
- **Recommendations**
- **Status of legislation**
- **Additional detailed permitting status**

# Permitting Process Overview

- **Scope of work developed from Site and Engineering**
- **Compile information for permit application from Site and Engineering detailed criteria**
- **Examples of required information**
  - **purpose**
  - **location**
  - **design**
  - **acreage**
  - **schedule**
  - **water requirements**
  - **tracers (MSDS sheets)**
- **Consult/negotiate with regulatory agency in person**
- **Prepare and submit permit application based on input**

# Permitting Process Overview

(Continued)

- **Agency reviews application and provides comments**
- **Applicant responds to comments**
- **Agency determines application complete**
- **Agency issues permit for public comment, if applicable**

# Permitting Process Overview

(Continued)

- **Agency may or may not hold public hearing**
- **Agency makes final decision**
- **Permit specifies conditions for compliance**
  - **Time limit for permit**
  - **Time limit for starting activity**
  - **Operational limits**
  - **Monitoring conditions**
  - **Reporting conditions**
  - **Agency compliance inspection**

# General Permitting Needs

- **Activities that require the following can proceed**
  - **Land disturbance** Received 6/91
  - **Water** Received 3/92
  - **Gravel (Drillhole Wash)** Received 10/89
  - **C-Well Tracers** Received 7/91
  - **Flood Plain Assessment - Site** Received 7/91
  - **LM300 Drill Rig** Received 11/91
- **Example activities include:**
  - **Geophysical Surveys**
  - **Trenches**
  - **Test Pits**
  - **Neutron Boreholes (shallow)**
  - **Road/pad construction**
  - **Pavement studies**
  - **C-Well hydrological tests**

# General Permitting Needs

(Continued)

- **Drilling into water table requires**
  - **Water permit waiver** (1 month)
  - **UIC permit for tracer** (4 months)
  - **Discharge approval** (if appropriate)
    - UZ-16 SRG-5
    - UZ-14 SD-1
    - USW-G5
  
- **Drilling not into water table requires**
  - **UIC permit for tracer (gaseous)** (4 months)
    - Neutron boreholes
    - NRG 1,3,4,5
    - SRG 1,2,3,4

# Permits for Exploratory Studies Facility

Criteria has not yet been provided\* to environmental compliance staff to allow for preparation of applications for ESF permits. The following has been prepared based on input from design staff.

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Earth Works (All Activities)	Air Quality - Disturbance	11/92	1/88	Received 6/91
	Water Appropriation		7/88	Received 3/92
	Free Use Permit - Gravel			
	Drillhole Wash Pit		7/89	Received 10/90
	40 Mile Wash Pit		1/92	Expected 4/92
	Proposed Pit		6/92	Expected 9/92
	Floodplain Assessment		5/92	Expected 9/92
ESF-Related Drillholes (NRG, SRG)	UIC Permit - Tracers	4/92	12/91	Expected 4/92
Stormwater Discharge	NPDES Permit	11/92	4/92	Expected 10/92

\*Exception is free-use permit for gravel



# Permits for Exploratory Studies Facility

(Continued)

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Gravel Screen	Air Quality - Point Source	5/92	3/92	Expected 5/92
Gravel Plant		7/93	12/92	Expected 6/93
Concrete Plant		7/93	12/92	Expected 6/93
Portal Vents		4/95	9/94	Expected 3/95
Class III Landfill	Landfill Permit	3/93	8/92	Expected 12/92
Drinking Water	Drinking Water System	2/24	2/93	Expected 8/93
Sewage Treatment	Sewage System Permit	2/94	3/93	Expected 10/93
Effluent Discharge	NPDES Permit	4/95	2/93	Expected 3/95
Effluent Ponds	Nevada Pond Construction Permit	4/95	2/93	Expected 3/95

# **Pursuing These Recommendations will Help to Assure Site Characterization Proceeds without Delays from the State Permitting Process**

- (1) Schedule for site activities needs to stabilize**
- (2) Detailed criteria for well design, construction, location, tracer use, zones of injection, discharge amount if any, need to be provided to environmental staff well in advance**
- (3) A suite of site characterization activities that require no additional permits should always exist should time frames change i.e., contingency plans**

# **DOE Successful with Litigation to Conduct Scientific Studies**

- **State lawsuit filed against DOE in January 1990 is Closed**
  - **U.S. Supreme Court upheld lower court unanimous ruling**
- **DOE filed lawsuit against State of Nevada in January 1990 to obtain permits**
  - **Case dismissed at DOE request**
- **In the last year, the State issued three major permits**

# **DOE has Obtained Permits to Start Major New Scientific Studies**

- **Air Quality - June 1991**
- **Underground Injection Control (UIC) - July 1991**
  - **For C Well Complex**
- **Water Appropriations Permit received March 2, 1992 for Well J-13**
- **Other incidental permits received**
  - **Permit for LM-300 diesel engines**
  - **Permit waiver for drill holes JF3 and UZ16**
- **Additional permits and permit modifications will be requested as appropriate**

# **Congressional Legislation May Be Needed to Ensure Studies Continue Uninterrupted**

- **Included in the President's proposed National Energy Strategy**
- **House and Senate Committees passed legislation**
- **House and Senate Leadership to determine next steps**

# To Demonstrate Federal Resolve DOE Needs Assistance

**YES**



- **Litigation and/or legislation to assure permits can be obtained**



- **Administration (OMB) and departmental (DOE) support to obtain adequate resources**



- **Congressional support of full funding**

**Without all three of the above, the repository program will become stalled and the nuclear power option will become less viable as part of the National Energy Strategy.**



# **Federal Permits**

PERMITTING APPLICABLE FOR SITE CHARACTERIZATION ACTIVITIES  
(FEDERAL)

<u>REGULATION</u>	<u>PERMIT</u>	<u>AGENCY</u>	<u>APPLICABILITY</u>	<u>FILED</u>	<u>EXPECTED (E)/ACTUAL</u>	<u>STATUS</u>
FEDERAL LAND POLICY & MANAGEMENT PLAN	FREE USE PERMIT	BLM	NEEDED FOR EXCAVATION OF SAND AND GRAVEL FROM PUBLIC LANDS. INCLUDES MTS LAND. ADDITIONAL GRAVEL NEEDED FOR CONSTRUCTION OF ROADS, DRILL PADS, ESF PADS. - DRILLHOLE WASH PIT	7/15/89	10/26/90	- PERMIT RECEIVED (THIS PIT IS AN ALTERNATIVE TO THE 40 MILE WASH PIT.)
			- 40 MILE WASH PIT	1/28/92	4/15/92 (E)	- BLM REVIEWING 40 MILE WASH APPLICATION
			- PROPOSED PIT	--	9/30/92 (E)	- NEW PIT LOCATION TO BE DETERMINED.
	RIGHT-OF-WAY RESERVATION	BLM/USAF	NEEDED FOR ACCESS TO PUBLIC AND AIR FORCE LAND	11/23/87 10/23/87	1/10/89 7/11/89	- RECEIVED BLM ROWR - RECEIVED AIR FORCE ROWR
ENDANGERED SPECIES ACT	ENDANGERED SPECIES ACT COMPLIANCE	USFWS	NEEDED IF ENDANGERED SPECIES POTENTIALLY AFFECTED (TORTOISE) EACH ACTIVITY LOCATION MUST BE SURVEYED PRIOR TO DISTURBANCE	10/10/89 --	2/9/90 7/2/91	- BIOLOGICAL OPINION RECEIVED - EG&G ANIMAL HANDLING PERMIT RECEIVED
EXECUTIVE ORDER 11988 (10 CFR 1022)	FLOODPLAIN ASSESSMENT AND FEDERAL REGISTER NOTICE	DOE/EH	NEEDED BEFORE CONSTRUCTION IN A FLOODPLAIN (100 YR) EH-1 REVIEWS/APPROVES ASSESSMENT. MUST BE PUBLISHED IN FEDERAL REGISTER	-- 5/15/92	10/1/91 9/30/92 (E)	- SRT ASSESSMENT AND STATEMENT OF FINDINGS ISSUED - ESF ASSESSMENT BEING WRITTEN. NO PROBLEMS EXPECTED SINCE MOST CONSTRUCTION IS NOT IN FLOODPLAIN
CLEAN WATER ACT	NATIONWIDE GENERAL PERMIT (SECTION 404)	COE	NEEDED BEFORE CONSTRUCTING IN A WATER COURSE	4/28/89	7/17/90	- PERMIT RECEIVED
NATIONAL HISTORIC PRESERVATION ACT ARCHAEOLOGICAL RESOURCES PROTECTION ACT AMERICAN INDIAN RELIGIOUS FREEDOM ACT	PROGRAMMATIC AGREEMENT	ACHP	CULTURAL PROPERTIES MUST BE PROTECTED. EACH ACTIVITY LOCATION MUST BE SURVEYED PRIOR TO DISTURBANCE	12/1/86	12/22/88	- PA COMPLETED
FARMLAND PROTECTION ACT	PRIME FARMLAND CONSULTATION	SCS	NEEDED TO ENSURE NO IMPACT TO PRIME FARMLAND	2/11/88	3/1/88	- CONSULTATION COMPLETED





**State Permits  
Required by Federal  
Flowdown Provisions**

PERMITTING APPLICABLE FOR SITE CHARACTERIZATION ACTIVITIES  
(FEDERAL FLOWDOWN)

REGULATION	PERMIT	AGENCY	APPLICABILITY	FILED	EXPECTED (E) /ACTUAL	STATUS	
CLEAN AIR ACT	AIR QUALITY LAND DISTURBANCE	NDEP	REQUIRED FOR DISTURBANCE >20 ACRES	1/20/88	6/12/91	- PERMIT RECEIVED	
			NEEDED FOR EACH POINT SOURCE OF EMISSIONS.				
			- LM 300 DRILLRIG	8/27/91	11/4/91	- LM 300 RECEIVED**	
			- GRAVEL SCREEN	3/9/92	5/15/92 (E)	- NDEP REVIEWING APPLICATION	
			- BATCH PLANT	12/30/92	6/30/93 (E)	- AWAITING DESIGN SCHEDULED 11/92	
			- PORTAL VENTS	9/30/94	3/30/95 (E)	- AWAITING DESIGN SCHEDULED 8/94	
			- GRAVEL SCREENING PLANT	12/30/92	6/30/93 (E)	- AWAITING DESIGN SCHEDULED 11/92	
SAFE DRINKING WATER ACT	UNDERGROUND INJECTION CONTROL PERMIT	NDEP	NEEDED BEFORE INJECTING TRACERS IN DRILLHOLES, ESF AND INFILTRATION STUDIES				
			- C-WELL COMPLEX	4/6/89	7/11/91	- PERMIT RECEIVED FOR C-WELLS	
			- DRILLHOLES	12/30/91	4/15/92 (E)	- PERMIT MODIFICATION PENDING FOR SUITE OF TRACERS TO BE USED IN 50 DRILLHOLES*	
			- ESF TRACERS	--	--	- TRACERS NOT YET IDENTIFIED	
RESOURCE CONSERVATION AND RECOVERY ACT	RCRA EPA REGISTRATION AND I.D. NUMBER	NDEP	NEEDED BEFORE GENERATING REGULATED QUANTITIES OF HAZARDOUS WASTE	4/1/89	6/26/89	- ID NUMBER RECEIVED	
CLEAN WATER ACT	NPDES DISCHARGE PERMIT	NDEP	NEEDED PRIOR TO DISCHARGING EFFLUENT				
			- PUMP TESTS				
			C WELL COMPLEX***	4/6/89	7/17/91	- APPROVAL RECEIVED	
			JF-3	10/18/91	11/15/91	- APPROVAL RECEIVED	
			- STORMWATER	4/30/92	10/15/92 (E)	- AWAITING DESIGN SCHEDULED 4/92	
			- WASTEWATER	9/30/94	3/30/95 (E)	- AWAITING DESIGN SCHEDULED 8/94	
SAFE DRINKING WATER ACT	DRINKING WATER SYSTEM PERMIT	NDEP	NEEDED BEFORE CONSTRUCTION BEGINS ON THE SYSTEM	2/30/93	8/15/93 (E)	- AWAITING DESIGN SCHEDULED 12/92	

NOTE: \*SHOULD PUBLIC COMMENT INDICATE PROBLEMS WITH A TRACER IT CAN BE DELETED WITHOUT JEOPARDIZING SCHEDULE BECAUSE ALTERNATES HAVE BEEN REQUESTED.

\*\*ONCE CERTIFICATE IS GRANTED, NDEP INSPECTS FACILITY AND ISSUES OPERATING PERMIT. REQUIRED FOR ENGINE OVER 500 HP OR MAXIMUM ALLOWABLE THROUGHOUT OVER 50 LBS/HR.

\*\*\*INCLUDED IN UIC PERMIT.



**State Permits  
Required by  
Nevada Law**

PERMITTING APPLICABLE FOR SITE CHARACTERIZATION ACTIVITIES  
(STATE)

<u>REGULATION</u>	<u>PERMIT</u>	<u>AGENCY</u>	<u>APPLICABILITY</u>	<u>FILED</u>	<u>EXPECTED (E) /ACTUAL</u>	<u>STATUS</u>
NEVADA LAW	GROUNDWATER APPROPRIATION	NSE	NEEDED FOR USE OF WATER			
			- WELL J-13	7/12/88	3/2/92	- PERMIT RECEIVED
			- WELL VH-1	9/3/91	9/13/91	- TEMPORARY PERMIT RECEIVED
			- WELL JF-3	10/10/91	10/24/91	- WAIVER RECEIVED
			- HOLE UZ-16	12/11/91	1/10/92	- WAIVER RECEIVED
	WATER POLLUTION CONTROL PERMIT	NDEP	NEEDED FOR POND CONSTRUCTION	7/30/93	3/30/95 (E)	- AWAITING DESIGN SCHEDULED 6/93
	SANITARY SEWAGE DISPOSAL PERMIT	NDEP	NEEDED FOR SEWAGE SYSTEM CONSTRUCTION	3/30/93	10/30/93 (E)	- AWAITING DESIGN SCHEDULED 12/92
	LANDFILL APPROVAL	NDEP	NEEDED FOR CLASS III LANDFILL CONSTRUCTION	8/1/92	12/30/92 (E)	- AWAITING DESIGN SCHEDULED 7/92

LEGEND

**NDEP** Nevada Division of Environmental Protection  
**NSE** Nevada State Engineer  
**BLM** Bureau of Land Management  
**USFWS** U.S. Fish and Wildlife Service  
**COE** Corps of Engineers  
**USAF** U.S. Air Force  
**ACHP** Advisory Council on Historic Preservation  
**SCS** Soil Conservation Service  
**DOE/EH** Department of Energy/Office of Environment Safety and Health  
**EPA** Environmental Protection Agency  
**SBT** Surface-Based Testing  
**ESF** Exploratory Studies Facility  
**NPDES** National Pollutant Discharge Elimination System



**Permits for ESF  
and  
Surface-Based Testing**

# PERMITS FOR EXPLORATORY STUDIES FACILITY

Criteria has not yet been provided\* to environmental compliance staff to allow for preparation of applications for ESF permits. The following has been prepared based on input from design staff.

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Earth Works (All Activities)	Air Quality - Disturbance	11/92	1/88	Received 6/91
	Water Appropriation		7/88	Received 3/92
	Free Use Permit - Gravel			
	Drillhole Wash Pit		7/89	Received 10/90
	40 Mile Was Pit		1/92	Expected 4/92
ESF-Related Drillholes (NRG, SRG)	Proposed Pit		6/92	Expected 9/92
	Floodplain Assessment		5/92	Expected 9/92
	UIC Permit - Tracers	4/92	12/91	Expected 4/92
Stormwater Discharge	NPDES Permit	11/92	4/92	Expected 10/92

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\*Exception is free-use permit for gravel

# PERMITS FOR EXPLORATORY STUDIES FACILITY

(CONTINUED)

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Gravel Screen Gravel Plant Concrete Plant Portal Vents	Air Quality - Point Source	5/92 7/93 7/93 4/95	3/92 12/92 12/92 9/94	Expected 5/92 Expected 6/93 Expected 6/93 Expected 3/95
Class III Landfill	Landfill Permit	3/93	8/92	Expected 12/92
Drinking Water	Drinking Water System	2/24	2/93	Expected 8/93
Sewage Treatment	Sewage System Permit	2/94	3/93	Expected 10/93
Effluent Discharge	NPDES Permit	4/95	2/93	Expected 3/95
Effluent Ponds	Nevada Pond Construction Permit	4/95	2/93	Expected 3/95

# PERMITS FOR SURFACE-BASED TESTING

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Drillholes not into Water Table (NRG-1)	Air Quality - Land Disturbance	4/92	1/88	Received 6/91
	Air Quality - Point Source (LM-300)		8/91	Received 11/91
	Water Appropriation		7/88	Received 3/92
	UIC - Tracers		12/91	Expected 4/92
	Free Use Permit - Gravel		1/92	Expected 4/92
	Floodplain Assessment		—	Issued 10/91
Dry Drillholes into Water Table (UZ-16)	Same Permits as Non-WT Holes	4/92		- As Above -
	Water Permit Waiver		12/91	Received 1/92
Wet Drillholes into Water Table (USW-G5)	Same Permits as Non-WT Holes	7/93		- As Above -
	Water Permit Waiver		3/93	Expected 6/93
	Approval to Discharge		3/93	Expected 6/93



# PERMITS FOR SURFACE-BASED TESTING

(CONTINUED)

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Neutron Boreholes	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
Excavations	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
	Floodplain Assessment		- -	Received 11/91
Artificial Infiltration	Air Quality -	FY93	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
	UIC - Tracers		12/91	Expected 4/92
	Approval to Discharge		12/92	Expected 3/93
Geophysical Lines	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92

# PERMITS FOR SURFACE-BASED TESTING

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Drillholes not into Water Table (NRG-1)	Air Quality - Land Disturbance	4/92	1/88	Received 6/91
	Air Quality - Point Source (LM-300)		8/91	Received 11/91
	Water Appropriation		7/88	Received 3/92
	UIC - Tracers		12/91	Expected 4/92
	Free Use Permit - Gravel Floodplain Assessment		1/92	Expected 4/92
			—	Issued 10/91
Dry Drillholes into Water Table (UZ-16)	Same Permits as Non-WT Holes	4/92		- As Above -
	Water Permit Waiver		12/91	Received 1/92
Wet Drillholes into Water Table (USW-G5)	Same Permits as Non-WT Holes	7/93		- As Above -
	Water Permit Waiver		3/93	Expected 6/93
	Approval to Discharge		3/93	Expected 6/93

# PERMITS FOR SURFACE-BASED TESTING

(CONTINUED)

<u>ACTIVITY</u>	<u>PERMIT</u>	<u>DATE NEEDED</u>	<u>FILE DATE</u>	<u>STATUS</u>
Neutron Boreholes	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
Excavations	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
	Floodplain Assessment		- -	Received 11/91
Artificial Infiltration	Air Quality -	FY93	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92
	UIC - Tracers		12/91	Expected 4/92
	Approval to Discharge		12/92	Expected 3/93
Geophysical Lines	Air Quality -	FY92	1/88	Received 6/91
	Land Disturbance Water Appropriation		7/88	Received 3/92



# **Miscellaneous Permits**

GENERAL STATE ANCILLARY PERMITS

ACTIVITY	PERMIT REQUIRED	EARLIEST DATE REQUIRED	STATUS
<u>GENERAL ANCILLARY PERMITS</u>			
Terrestrial Ecosystem Studies	Animal Handling Permit (EG&G)	1991	Permit received
Archaeological Studies	Archaeological Collection Permit (DRI)	1991	Permit received
Material/Equipment Transport	Oversized load transportation permit (hauler)	1992	To be scheduled
Elevator	Elevator permit (REECO)	—	To be determined
Building	Building permits	—	None require in Nye County
Well Drilling	Driller license (REECO)	1992	License received
Radiological Source Material	Handling Permit obtained (user)	1992	Permit received as needed
Explosives	Explosives certification (REECO)	1992	No current scheduled requirement
Bus driving	Chauffeur license (REECO)	1992	REECO responsibility