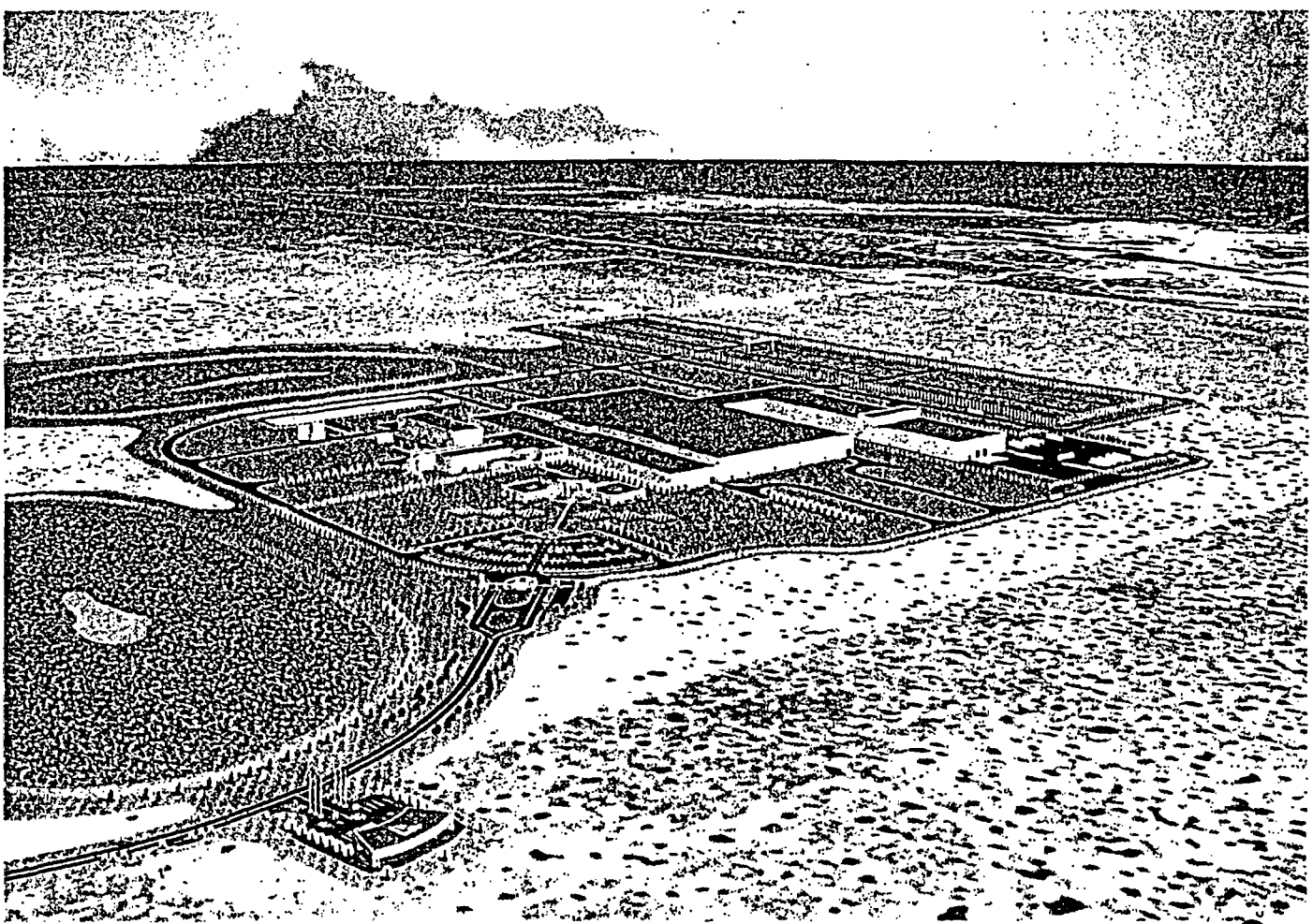
15

NATIONAL ENRICHMENT FACILITY

LOUISIANA ENERGY SERVICES, LP

GROUND WATER DISCHARGE PERMIT APPLICATION



APRIL 26, 2004

ORIGINAL

State of New Mexico
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2900
Fax (505) 827-2965
www.nmenv.state.nm.us

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

APR 2 8 2008

ORIGINAL

GROUND WATER DISCHARGE PERMIT APPLICATION

Enclosed is a Ground Water Discharge Permit Application Form (Form) and checklist. Section 20.6.2.3104 NMAC of the NM Water Quality Control Commission Regulations (20.6.2 NMAC) requires that any person proposing to discharge effluent or leachate so that it may move directly or indirectly into ground water must have an approved discharge permit, unless a specific exemption is provided for in the Regulations. The enclosed Form is a general guideline for use by applicants to ensure that an application is complete and provides all of the information required by sections 20.6.2.3106, 20.6.2.3107, 20.6.2.3108, and 20.6.2.3109 NMAC.

Mail **three complete copies** of your application with a **$100 filing fee** check made payable to the New Mexico Environment Department (NMED) at the address below:

Maura Hanning, Program Manager
Ground Water Pollution Prevention Section
NM Environment Department
P. O. Box 26110
Santa Fe, NM 87502

Pursuant to Regulation 20.6.2.3108 NMAC, NMED will, within thirty (30) days of deeming the application administratively complete, publish a public notice and allow 30 days for public comment before taking final action on a discharge permit. A public hearing will be held if NMED determines that there is significant public interest. It takes approximately180 days to process a complete application and issue a discharge permit if no public hearing is held.

All applications must be accompanied by a filing fee of $100. **An additional fee will be assessed prior to permit issuance** to cover the estimated cost to the NMED for investigation, and, issuance of the permit. **Permit fees are listed in the Regulation 20.6.2.3114 NMAC.**

If you have any questions about this discharge permit application, call the Ground Water Pollution Prevention Section at 505-827-2900

COMPLETION CHECKLIST

X	All portions of the Ground Water Discharge Permit Application Form have been addressed. (The application will not be considered complete if there are omissions, which will delay publication of the public notice and issuance of the permit.)
X	Submitter has included operational, monitoring, contingency, and closure plans that are appropriate for the proposed treatment and disposal system, and meet the site-specific conditions for the proposed facility.
X	Plans and specifications for the entire effluent or leachate conveyance, collection, treatment, distribution, and disposal system have been included as required by Regulation 20.6.2.1202 NMAC. For septic tank/leachfield systems, designs should be consistent with NMED's guidelines for Plans and Specifications for Discharge Permit Applications Using Septic Tank/Leachfields.
X	The application has been signed and dated by the responsible party, generally the owner or lessee.
X	If your facility site includes an archeological site on the State Register of Cultural Properties or National Register of Historic Places, the State Historic Preservation Office has the authority to require an archeological or historical study prior to NMED taking final action on your discharge permit.
X	Four maps have been included: **1)** area United States Geological Survey (USGS) topographic map that includes the location of the facility and all of the information required in the application item 7.b, **2)** local road map clearly defining the location of the facility and the route to get to the facility, **3)** detailed site map that includes all discharge locations (lagoons, leachfields, land application areas, outfalls...), all water supply and monitoring wells, all water courses on the property and all buildings and **4)** United States Department of Agriculture (USDA) soils map.
X	Three copies of all required information have been enclosed.
X	A filing fee check in the amount of $100, has been enclosed, made payable to the NM Environment Department at the address on page 1.
X	The SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS has been reviewed and the option for Public Notice Has been selected on the application page 3.

ADMINISTRATIVE COMPLETENESS

APR 2 8 2004

To be deemed administratively complete for publication of a public notice, the following information must be provided. [20.6.2.3106, 20.6.2.3108 NMAC]

Review the SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS (attached) to select an option below.

☒ Public Notice Option 1 ☒ Public Notice Option 2 ☒ Public Notice Option 3

1. **Name of the proposed discharger and facility** [20.6.2.3106, 20.6.2.3108.C.1 NMAC]:

National Enrichment Facility (NEF)

Type of facility or operation (dairy, municipal wwtp, mining, school, etc.): Uranium Enrichment Plant

	Name	Address*	City	State	Zip	Telephone & Fax
Facility*	National Enrichment Facility	To be determined	Eunice	NM	88231	To be determined
Owner	Louisiana Energy Services, LP	100 Sun Lane NE, Suite 204	Albuquerque	NM	87109	505-944-0194 Ph. 505-944-0198 Fax
Responsible Party	R. M. Krich	2600 Virginia Ave. NW Suite 610	Washington	DC	20037	202-222-0391 Ph. 202-337-2421 Fax
Facility Representative	R. M. Krich	2600 Virginia Ave. NW Suite 610	Washington	DC	20037	202-222-0391 Ph. 202-337-2421 Fax
Consultant	AREVA	400 Donald Lynch Blvd.	Marlborough	MA	01752	978-568-2728 Ph. 978-568-3731 Fax
	GL Environmental	4200 Meadowlark Lane, Suite 1A	Rio Rancho	NM	87124	505-994-0099 Ph. 505-994-0093 Fax
Other (specify) Current Land Owner	New Mexico State Land Office	310 Old Santa Fe Trail, P.O. Box 1148	Santa Fe	NM	87504-1148	505-827-5760 Ph. 505-827-5766 Fax

*For the facility address, enter physical address- not mailing address.

2. Locations of the Discharges [20.6.2.3106.C.2 and 20.6.3108.C.2 NMAC]:

List the locations of the discharges covered by this permit. Add rows as necessary to include all discharge locations. Sections should be described to the nearest ¼ of a ¼ of a ¼ section (please see attachment).

Discharge Location (lagoons, leachfields, land application areas, outfalls, etc.)	**County**	**Township**	**Range**	**Section**	**Latitude**	**Longitude**
Site Storm Water Detention Basin (SSDB)	Lea	T21S	R38E	SE, SE, SW 32	32°25' 52" N	103°04' 35" W
Uranium Byproduct Cylinder (UBC) Storage Pad Storm Water Retention Basin (USPSRB)	Lea	T21S	R38E	SW, NE, NE 32	32°26' 07" N	103°05' 02" W
Treated Effluent Evaporative Basin (TEEB)	Lea	T21S	R38E	SE, NW, NW 32	32°26' 02" N	103°04' 55" W
Septic Tank-Leachfield 1 (ST/L 1)	Lea	T21S	R38E	SE, NE, SW 32	32°25' 57" N	103°04' 36" W
Septic Tank-Leachfield 2 (ST/L 2)	Lea	T21S	R38E	NW, SE, SW 32	32°26' 11" N	103°05' 06" W
Septic Tank-Leachfield 3 (ST/L 3)	Lea	T21S	R38E	NE, SW, SW 32	32°26' 10" N	103°04' 49" W
Septic Tank-Leachfield 4 (ST/L 4)	Lea	T21S	R38E	SE, NW, SE 32	32°25' 59" N	103°04' 46" W
Septic Tank-Leachfield 5 (ST/L 5)	Lea	T21S	R38E	SE, NE, NW 32	32°26' 02" N	103°04' 39" W
Septic Tank-Leachfield 6 (ST/L 6)	Lea	T21S	R38E	SE, SE, NE 32	32°25' 52" N	103°04' 29" W

Note: Refer to NEF Detailed Site Map (Attachment A) for basin and discharge locations

3. Brief Description of Discharge [20.6.2.3108.C.3 NMAC]:

Briefly describe the activities which produce the discharge(s) including the treatment and disposal methods. Attach additional pages as necessary.

The **Site Storm Water Detention Basin** at the south side of the site will collect runoff from various developed parts of the site including roads, parking areas and building roofs. It is unlined and will have an outlet structure to control discharges above the design level. The normal discharge will be through evaporation/infiltration into the ground. The basin is designed to contain runoff for a volume equal to that for the 24-hour, 100-year return frequency storm, a 15.2 cm (6.0 in) rainfall. The basin will have approximately 23,350 m^3 (100 acre-ft) of storage capacity. Area served includes about 39 ha (96 acres) with the majority of that area being the developed portion of the 220 ha (543 acres)

123,300 m^3 JCH 7/14/04

NEF site. Effluent is not treated prior to release. If required, all storm water discharges will be regulated by a National Pollutant Discharge Elimination System (NPDES) Storm Water Permit, including a General Permit for construction and a Multi Sector General Stormwater Permit for facility operations.

The **Uranium Byproduct Cylinder (UBC) Storage Pad Storm Water Retention Basin** is utilized for the collection and containment of water discharges from three sources: (1) cooling tower blowdown discharges, (2) storm water runoff from the UBC Storage Pad and (3) heating boiler blowdown. The ultimate disposal of basin water will be through evaporation of water and impoundment of the residual dry solids after evaporation. It is designed to contain runoff for a volume equal to twice that for the 24-hour, 100-year return frequency storm, a 15.2-cm (6.0-in) rainfall plus an allowance for cooling tower and heating boiler blowdown water. The UBC Storage Pad Storm Water Retention Basin is designed to contain a volume of approximately 77,700 m^3 (63 acre-ft). Area served by the basin includes 9.2 ha (22.8 acres), the total area of the UBC Storage Pad. This basin is designed with a membrane lining to minimize any infiltration into the ground. To provide adequate chemical resistance to the various liquids, the liner material may consist of High Density Polyethylene (HDPE) or Ethylene Interpolymer Alloy (Coolgard ® XR-5® or Ultra Tech®). Liner thickness will be specified during final design. Effluent is not treated prior to release to the basin. The basin liner will comply with the NM Environment Department Ground Water pollution Prevention Sections, Guidelines for Liner Material and Site Preparation for Synthetically Lined Lagoons, December 11, 1995. The basin does not have an outlet.

Cooling Tower blowdown composition: pH will be in the range of 6.5 to 9.0, dissolved constituents with the exception of bicarbonate and sulfate will be those present in the potable water supply at a concentration factor of approximately 3 times. Sulfate will be higher and bicarbonate will be lower than three times the potable water concentrations due to the addition of sulfuric acid to the cooling water for pH adjustment to prevent carbonate scaling. Oxidizing biocide, corrosion inhibitor and dispersant chemical constituents will also be present as dissolved components of cooling tower blowdown.

Typical blowdown concentrations will be as follows:

Phosphate = 4-12 ppm
Epoxy carboxylate = 4-8 ppm
Hydroxyl sulfurate polymer = 5-10 ppm
Copper inhibitor HRA = 2-4 ppm

Typical chemicals used in cooling tower water treatment are as follows:

96% Sulfuric Acid
Continuum AEC3109
Liquid Bromine

Heating Boiler blowdown contains potential concentrations of sulfites (50 ppm), neutralizing amine (10 ppm), phosphate (30 ppm), and polymer (40 ppm).

Discharge of routine plant liquid effluents will be to the **Treated Effluent Evaporative Basin** on the site. The Treated Effluent Evaporative Basin is utilized for the collection and containment of waste water discharge from the Liquid Effluent Collection and Treatment System. The ultimate disposal of

waste water will be through evaporation of water and impoundment of the residual dry solids* byproduct of evaporation. Total annual discharge to that basin will be approximately 2,535 m^3 per year (669,844 gal/yr). Evaporation will provide the only means of liquid disposal from this basin. The Treated Effluent Evaporative Basin will include a double membrane liner and a leak detection system. To provide adequate chemical resistance to the various liquids, the liner material may consist of High Density Polyethylene (HDPE) or Ethylene Interpolymer Alloy (Coolgard ® XR-5® or Ultra Tech®). Liner thickness will be specified during final design. Of the liquid effluent discharges to the basin, only uncontaminated liquid wastes are released to the Treated Effluent Evaporative Basin for evaporation without treatment. Contaminated liquid effluent is neutralized and treated for removal of uranium, as required, prior to discharge to the basin. Effluents unsuitable for the evaporative disposal will not be discharged to the basin. They will be removed off-site by a licensed contractor in accordance with regulatory requirements. The basin will have two synthetic liners with leak detection that will comply with the NM Environment Department Ground Water Pollution Prevention Sections, Guidelines for Liner Material and Site Preparation for Synthetically Lined Lagoons, December 11, 1995. The basin does not have an outlet.

The site will be served by six **standard septic systems with leachfields** to dispose of sanitary wastes at the site.

* Note: Dry Residual Solids
For the three basins: Site Stormwater Detention Basin (SSDB), UBC Storage Pad Stormwater Retention Basin (USPSRB) and the Treated Effluent Evaporative Basin (TEEB), dry residual solids are expected to consist principally of:

- Silt from rainwater runoff (SSDB and USPSRB), and
- Silt/sand from natural wind-blown materials (SSDB, USPSRB, and TEEB)

Minor constituents include:

- Concrete dust from the UBC Storage Pad (USPSRB)
- Trace amounts of residual non-volatile fractions of boiler blowdown chemicals: sulfites, neutralizing amine, phosphate, and polymer (USPSRB)
- Trace amounts of residual non-volatile fractions of Cooling Tower blowdown chemicals: sulfate (concentrated from potable water), oxidizing biocide, corrosion inhibitor, and dispersant chemical (USPSRB)
- Small residual amounts of uranium (TEEB)

4. Discharge Characteristics [20.6.2.3106.C.1 and 20.6.2.3108.C.4 NMAC]:

4.a. Quantity:

Peak design discharge rate* in gallons per day (gpd) (design capacity of the treatment and disposal system):	SSDB: 15.6 million gpd USPSRB: 3.73 million gpd TEEB: 5,350 gpd ST/L 1: 40 gpd ST/L 2: 40 gpd ST/L 3: 2,275 gpd ST/L 4: 4,980 gpd ST/L 5: 3,020 gpd ST/L 6: 250 gpd
Average discharge rate on annual basis in gpd (actual flow):	SSDB: 99,850 gpd USPSRB: 37,750 gpd TEEB: 1,840 gpd (treated effluent only) ST/L 1: 20 gpd ST/L 2: 20 gpd ST/L 3: 1,140 gpd ST/L 4: 2,490 gpd ST/L 5: 1,510 gpd ST/L 6: 125 gpd
Methods used to meter or calculate discharge volume:	SSDB: Peak and average discharge rates were calculated using peak precipitation event and average annual rainfall, respectively, times the area serviced assuming no infiltration or evaporation. USPSRB: Peak and average discharge rates were calculated using peak precipitation event and average annual rainfall, respectively, times the area serviced assuming no infiltration or evaporation. This amount was increased by the volume of blowdown from the cooling tower (13,840 gpd) and heating boiler (100 gpd). TEEB: Discharges are based on process flow calculations. The liquid effluent will be discharged in batch releases. All discharge volumes along with time of release will be maintained in log books based on tank volumes and release times for tank contents. ST/L: Design flow, based on the number of employees served, is derived from 20.7.3 NMAC; Septic tank specifications based on manufacturer's information from Richard Septic Systems, Inc. Peak flows based on design for 422 persons. Average flows based on actual employee count of 210. Additional details on the calculation of discharge volumes summarized above are provided in Attachment B.

*Peak design discharge rate is the maximum volume of wastewater the system was designed to treat on a daily basis. This is generally based on the capacity of the different components of the system (size of lagoons, volume of tanks, etc.)

4.b. Quality: Add rows as necessary to include all contaminants and toxic pollutants.

Contaminant(s) or Toxic Pollutant(s) generally associated with facility type (contaminants of concern are listed in 20.6.2.7. and 20.6.2.3103 NMAC)	**Influent Concentration (mg/L)**	**Effluent Concentration (mg/L)**
SSDB:		
Total Dissolved Solids (TDS)	Note 1	Note 2
USPSRB:		
Total Dissolved Solids (TDS)	Note 3	Not Applicable
TEEB:		
Total Dissolved Solids (TDS)	Note 4	Not Applicable
Uranium	0.225	Not Applicable
ST/L:		
Total Dissolved Solids (TDS)	Note 5	Not Applicable

Notes:

1. Concentrations will be measured as part of sampling program. LES will provide this information to NMGWQB after initial sampling. They will be typical of industrial storm water runoff prior to settling basin.
2. Concentrations will be measured as part of sampling program. LES will provide this information to NMGWQB after initial sampling. They will be typical of industrial storm water runoff after settling basin.
3. Concentrations will be measured as part of sampling program. LES will provide this information to NMGWQB after initial sampling. For storm water component, they will be typical of industrial storm water runoff prior to settling basin. Blowdown TDS will range from 3 to 5 times the potable water supply obtained from the City of Hobbs.
4. Concentrations will be measured as part of sampling program. LES will provide this information to NMGWQB after initial sampling.
5. Concentrations will be typical of sanitary wastes.

4.c. Flow Characteristics:

Number of days per week discharge occurs:	SSDB: 7 days (Note 1) USPSRB: 7 days (Note 2) TEEB: 7 days (Note 3) ST/L: 7 days
Number of months per year discharge occurs (specify months):	12
Is flow continuous or intermittent:	SSDB: Intermittent USPSRB: Intermittent for storm water and for blowdown TEEB: Intermittent (periodic batch releases) ST/L: Continuous

Notes:

1. Flow is associated with precipitation runoff and is intermittent, but could occur on any day of the week or month of the year.
2. Flow is associated with precipitation runoff and blowdown (cooling tower and heating boiler). Flow associated with precipitation runoff is intermittent, but could occur on any day of the week or month of the year. Flow associated with blowdown is in batch releases and could occur on any day of the week or month of the year.
3. Flow is associated with periodic batch releases from Effluent Treatment System and could occur on any day of the week or month of the year.

5. **Ground Water Conditions** [20.6.2.3106.C.3 and 20.6.2.3108.C.5 NMAC]:

Sources for this information may be the New Mexico State Engineers Office, NMED, GWPPS web site (www.nmenv.state.nm.us), and USGS reports. If you do not have a TDS value, take a sample from the nearest well to the discharge location and submit the results from the analysis.

Depth to ground water below the discharge site:	Water-bearing unit: 214 to 222 feet bgl
Flow direction of ground water below the site:	South-southeast
Flow gradient of ground water below the site:	0.011 ft/ft
Reference* or source for depth, direction and gradient:	Hydrologic Investigation, Section 32; Township 21 Range 38, Eunice, NM, Cook-Joyce, Inc, Austin TX, 19 Nov, 2003.

* If determined from well logs, please provide photocopies of well logs with application. If depth is derived from a report include copies of appropriate pages and complete reference to report including author, title, and publication date.

Summary of Ground Water Conditions Under the Site

Ground water in the NEF site vicinity occurs sporadically, perched in the sand and gravel alluvium or localized pockets or in surface excavations north of the site, and to the east as detected in some monitoring wells on the adjacent property. This shallow ground water was not detected in 9 site borings or 3 monitoring wells on the site itself.

Nine borings were installed on the NEF site during the fall of 2003. The borings ranged in depth from 35 feet to 60 feet. The borings were gauged for a minimum of 24 hours and ground water was not identified in any of the nine borings.

Upon completion of the shallow subsurface ground water investigation, three monitor wells were drilled to a depth of 250 feet below ground surface.

In one of the three monitoring wells drilled at the NEF site a very limited ground water source was encountered at depth. Occurring at a depth of 214 to 222 feet below the ground surface, the source consists of a 15-foot thick zone of siltstone, and appears to correspond to a zone of intermittent ground water occurrence documented on the adjacent property to the east. This limited zone occurs within the Triassic redbeds of the Chinle formation, 150 feet to 200 feet thick, and generally an impermeable claystone. The site monitoring well providing water from the zone requires about a week to recover after purging for sampling. The hydraulic conductivity of the zone is calculated as $3.7x10^{-6}$ cm/sec, and the velocity of ground water flow in the zone is approximately 0.3 ft/yr. Based on data from monitoring wells to the east, ground water levels in this regime do not fluctuate much over time. Based on this information and the lack of ground water encountered in other site borings, the silt unit within the Chinle is not interpreted to meet the definition of an aquifer, which requires that the unit be able to transmit "significant quantities of water under ordinary hydraulic gradients."

The first occurrence of a defined aquifer beneath the site is the Triassic-aged Santa Rosa Formation, almost 800 ft below the land surface at the NEF site. The presence of the thick Chinle formation clay beneath the site essentially isolates that deep hydrologic system.

Attachment C is a copy of the Final Report of the Hydrologic Investigation for the site. It provides all backup ground water information for the site including borings logs for the nine shallow ground water investigation borings, the five geotechnical borings and the construction summaries for the three monitoring wells.

Total Dissolved Solids (TDS) concentration (mg/L) of ground water below the site:	2,500 to 6,650 mg/L
Reference or source for TDS:	NEF Environmental Report Sections 3.4.2 and 3.4.15 and Table 3.4.3 (Note 1)

Note:

1. TDS based on samples from site monitoring wells that ranged from 2,500 to 6,000 mg/L. This is supplemented by data from monitoring wells located on property directly east of the NEF that ranged from 2,880 to 6,650 mg/L.

TECHNICAL ADEQUACY

To be deemed technically adequate, for purposes of issuing the discharge permit, the following information must be provided. [20.6.2.3106, 20.6.2.3107, 20.6.2.3109 NMAC]. Operational, monitoring, contingency, and closure plans must be submitted and must be appropriate for the proposed treatment and disposal type and meet the site specific conditions for the proposed facility.

6. **Permit Plans** [20.6.2.3106.C.7, 20.6.2.3107.A, and 20.6.2.3109.C NMAC]:

6.a. **Operational Plan** [20.6.2.3106.C.7 and 20.6.2.3109.C NMAC]:

The operational plan must describe how the system(s) for conveyance, collection, treatment, distribution, and disposal of wastewaters or other discharges will be constructed, operated, inspected, and maintained. The operational plan must demonstrate that ground water standards will not be exceeded.

6.a.i. In the following table, identify all proposed conveyance, collection, treatment distribution, and disposal units included in the operational plan. Add rows as necessary to include all units.

Treatment/Storage/ or Disposal Unit **Treatment units** (lagoon, mechanical treatment plant, manure separator, clarifier, etc.) **Disposal Units** (land application area, leachfield, evaporative lagoon, leachstockpile, etc.)	**Construction Material**	**Volumetric Capacity*/Area*** (gallons or cubic yards/ acres)
Disposal Unit: Site Storm Water Detention Basin (SSDB) – The ultimate disposal of basin water (site storm water runoff) will be through infiltration to the ground and evaporation.	The basin will be constructed using a combination of excavation below the ground surface and an earth berm above grade. The basin is unlined. The basin will have a minimum of 2 feet of freeboard. The basin will have an outfall. The outfall will consist of a concrete structure with a discharge pipe sized and located to provide the proper flow attenuation. The basin will be maintained free of debris and will be enclosed by a fence to prevent entry by animals and unauthorized personnel.	The basin is sized to contain runoff for a volume equal to that for the 24-hour, 100-year return period storm. The basin will have approximately 23,350 m^3 (100 acre-ft) of storage capacity. Surface Area at High Water Elevation = 19.0 acres.
Disposal Unit: UBC Storage Pad Storm Water Retention Basin (USPSRB) – The ultimate disposal of basin water (UBC Storage Pad storm water runoff, Cooling Tower blowdown and Heating Boiler blowdown) will be through evaporation.	The basin will be constructed using a combination of excavation below the ground surface and an earth berm above grade. The basin is designed with a synthetic membrane lining to minimize any infiltration into the ground and does not have an outlet. The synthetic liner will be used to impose a barrier between the contents of the basin and the underlying soils and potential access to ground water. Access to any ground water is further impeded by the impervious clay layer underlying the liner. The basin liner will be selected and installed in accordance with NMED Guidelines for Liner Material and Site Preparation for Synthetically-Lined Lagoons, dated December 11, 1995. To provide adequate chemical resistance to the various liquids, the liner material may consist of High Density Polyethylene (HDPE) or Ethylene Interpolymer Alloy (Coolgard® XR-5® or Ultra	The basin is sized to contain runoff for a volume equal to twice that for the 24-hour, 100-year return frequency storm. The design volume is approximately 77,700 m^3 (63 acre-ft). Surface Area at High Water Elevation = 18.9 acres.

	Tech®). Liner thickness will be specified during final design. From the bottom up the proposed liner system will consist of: • A prepared layer, minimum 2-foot thick, of on site clay-type soils, free from rock, compacted at optimum moisture content to 95% of Standard Proctor ASTM D698. The plastic limit of the clay will be approximately 20 and the material will be compacted to +3% of it's optimum moisture content. • A geosynthetic fabric suitable for the material being retained. • A prepared layer, minimum 1-foot thick, of on site clay, free of rock, and compacted at optimum moisture content • Installation of the liner will be by manufacturer certified installers and will be installed and tested according to project specifications. The basin will be maintained free of debris and will be enclosed by a fence to prevent entry by animals and unauthorized personnel.	
Disposal Unit: Treated Effluent Evaporative Basin (TEEB) – The ultimate disposal of liquid effluent from the Liquid Effluent Collection and Treatment System will be through evaporation.	The basin will be constructed using a combination of excavation below the ground surface and an earth berm above grade. The basin will be double-lined and provided with a leak detection system. The two synthetic liners are used to impose two barriers between the contents of the basin and the underlying soils and potential access to ground water. Access to any ground water is further impeded by the impervious clay layer underlying the liner. These synthetic liners are known as the primary (upper) and secondary (lower) liner. The basin is designed with a synthetic membrane lining to preclude any infiltration into the ground. The basin does not have an outlet. The basin liner will be selected and installed in accordance with NMED Guidelines for Liner Material and Site Preparation for Synthetically-Lined Lagoons, dated December 11, 1995. Access to ground water is further impeded by the impervious clay layer which underlies the secondary liner. Active liquid-sensor leak detection will be provided to detect leakage through the upper primary liner. The system is a drain/sump system. The chemical compatibility of the liners has been	Total annual discharge will be approximately 2,535 m^3 per year (669,844 gal/yr). The basin has a surface area of 0.75 acres and a maximum normal operating depth of 1.1 feet above the bottom of the basin. Total basin depth is 4.2 feet. Surface Area at High Water Elevation = 1.75 acres

verified with the liner manufacturer.

To provide adequate chemical resistance to the various liquids, the liner material may consist of High Density Polyethylene (HDPE) or Ethylene Interpolymer Alloy (Coolgard® XR-5® or Ultra Tech®). Liner thickness will be specified during final design.

From the bottom up the proposed liner system will consist of:

- A prepared layer, minimum 2-foot thick, of on site clay-type soils, free from rock, compacted at optimum moisture content to 95% of Standard Proctor ASTM D698. The plastic limit of the clay will be approximately 20 and the material will be compacted to +3% of it's optimum moisture content.
- A geosynthetic fabric suitable for the material being retained.
- Leak collection piping, sump, and pumping system to pump any leaks back to the primary liner system.
- A geomembrane drainage mat with the imbedded leak collection piping.
- A geosynthetic fabric suitable for the material being retained
- A prepared layer, minimum 1-foot thick, of on site clay, free of rock, and compacted at optimum moisture content
- Installation of the liner will be by manufacturer certified installers and will be installed and tested according to project specifications.

The basin does not have an outlet.

The basin is designed to retain 30 years of solids accumulation and annual liquid effluent discharge and direct rainfall. The basin is sized to include a safety factor of 200% times the maximum storm water from a single rainfall event. The basin is designed for an annual evaporation of 80 inches per year.

The basin is designed with two cells, each designed to evaporate 50% of the annual liquid effluent discharge, allowing for periodic outages of each cell, while maintaining plant operations. Influent flow will be measured and totalized. Pond level gauges will be provided.

The basin will be maintained free of debris and will be enclosed by a fence to prevent entry by animals and unauthorized personnel. The basin

	will be covered by surface netting, or other suitable devices, to exclude waterfowl access to basin water.	
Disposal Unit: Septic Tanks and Leachfields (ST/L) – The ultimate disposal is discharge underground via the leachfields.	Septic tank drain field systems will be constructed in accordance with 20.7.3 NMAC and requirements of the local building officials and health department. During final design the proposed location, length of drain field and orientation of septic systems will be selected by the design engineer and approved in the field by local building officials.	The percolation rate established by actual tests on the site is 8 minutes per inch. Utilizing this rate and allowing for 20-30 gallons per person per day, each person will require approximately 9 linear foot of trench utilizing a 36 inch wide trench filled with 24 inches of open graded crushed stone. The site population during operation is expected to be 210 persons. The building facilities are designed by architectural code analysis to accommodate approximately 420 persons. A total of approximately 3,200 linear feet of percolation drain field will be required. Thus the combined area of the leachfields will be approximately 9,600 ft^2.

*Volumetric Capacity must be provided for all tanks, chambers, and impoundments or other storage units.
*Area must be provided for all land application areas, leachfields or other area features.

6.a.ii. Describe in detail the operational plan, including all conveyance, collection, treatment, distribution and disposal systems. Attach additional pages as necessary:

Site Storm Water Detention Basin

The Site Storm Water Detention Basin collects a portion of general site storm water from plant areas (except for the UBC Storage Pad area). Site runoff will be collected through a series of catch basins and roof drains connected to the site underground storm water system. The runoff will be conveyed to the basin via a system of underground pipes. All runoff will be discharged into the basin.

The NEF also will have a diversion ditch and berm to divert any upstream surface runoff (overland sheet flow) around the facility. The east portion of this diversion ditch also discharges through the Site Storm Water Detention Basin. The storm water from the diversion ditch will be routed through the basin, but will not be changed in either volume or runoff rate. The western portion of the diversion ditch will drain into the natural terrain and will eventually flow into the culvert system under New Mexico Highway 234. This diversion ditch will be designed to divert the 100-year return period storm around the plant structures.

This basin will have an outlet. The basin is designed to cause post-construction peak flow runoff rates to equal or be less than pre-construction release rates for the facility site runoff. The basin will be below 100 acre-feet of storage capacity and less than 15 feet in height. No treatment is provided for in the basin other than some settlement of solids in the runoff.

No plant contaminants are expected to be introduced to this discharge as a result of plant operation. The ultimate disposal of basin water will be through infiltration to the ground and evaporation. The runoff area served includes about 39 ha (96 acres) with the majority of that area being the developed portion of the 220 ha (543 acres) National Enrichment Facility site.

UBC Storage Pad Storm Water Retention Basin

UBC Storage Pad Storm Water Retention Basin is used for the collection of liquid effluent discharges from three sources: 1) storm water runoff from the UBC Storage Pad (8,691,000 gal/yr); 2) the cooling tower blowdown (5,050,000 gal/yr); and 3) the heating boiler blowdown water (36,500 gal/yr). Area served by the basin for storm water runoff includes 9.2 ha (22.8 acres), the total area of the UBC Storage Pad.

Trench drains/catch basins inside the UBC Storage Area will collect storm water within a bermed/sloped area of approximately 22.8 acres. The underground piping system conveying the flow away from the UBC Storage Area will be reinforced concrete pipe with rubber gasketed joints. The underground piping system will discharge into the basin.

The discharge to this basin has a low likelihood of containing trace amounts of uranium washed by rainfall from the exterior of the Uranium Byproduct Cylinders (UBCs) stored on the UBC Storage Pad. Monitoring of the basin will be performed to verify the runoff does not contain uranium.

Blowdown from the Cooling Towers and the Heating Boiler will be routed to the basin via underground piping.

No treatment is provided for in the basin. The basin is designed with a synthetic membrane lining to minimize any infiltration into the ground and does not have an outlet. The synthetic liner will be used to impose a barrier between the contents of the basin and any natural soils and potential access to the underlying soil. The ultimate disposal of basin water will be through evaporation.

Treated Effluent Evaporative Basin

The Treated Effluent Evaporative Basin receives discharge from the Liquid Effluent Collection and Treatment System. A description of the Liquid effluent Collection and Treatment System is provided in Attachment D. This description was adapted from the NEF Safety Analysis Report.

No treatment is provided for in the basin. The basin is designed with a double synthetic membrane lining system to preclude any infiltration into the ground. The basin does not have an outlet. The ultimate disposal of basin water will be through evaporation.

The basin area will be enclosed by a fence to prevent entry by animals and unauthorized personnel and the basin surface will contain a layer of netting or other suitable device to exclude waterfowl.

The facility's Liquid Effluent Collection and Treatment System provides a means to control liquid effluent within the plant including the collection, analysis, and processing of plant liquid effluents for disposal. Numerous types of aqueous and non-aqueous liquid effluents are generated in the NEF. These effluents may contain uranic compounds, may be potentially contaminated with low-levels of uranic compounds, or may be non-contaminated. Table E.1 in Attachment E summarizes the plant sources of potential effluent contamination

prior to treatment. Treated effluent from the NEF Liquid Effluent Collection and Treatment System is analyzed prior to release and pH adjusted to fall within the range of 6.5 to 9.0, which complies with the ground water standards of 20.6.2.3103 NMAC. Other than uranic content and pH, the plant processes should not affect or introduce any of the other water contaminants listed in 20.6.2.3103 NMAC to the NEF effluent that is discharged to the Treated Effluent Evaporative Basin.

The Liquid Effluent Collection and Treatment System will be constructed with appropriate corrosion resistant metallic or plastic materials. None of the effluents are of a chemical nature that require special construction materials. All process piping in the Liquid Effluent Collection and Treatment System is designed in accordance with American Society of Mechanical Engineers, ASME B31.3 process piping. To provide system integrity and prevent leaks, welded construction is used everywhere practical. All collection tanks are designed in accordance with the American Water Works Association (AWWA) or ASME standards. All tanks have inspection hatches. The tanks and piping of the system are periodically inspected and there are a number of check values, gauges and other process enunciators and warning lights that provide the plant control room operator clear indications of process equipment failures and malfunction before an adverse environmental condition can develop.

The treated effluent from the Liquid Effluent Collection and Treatment System is discharged to the Treated Effluent Evaporative Basin (TEEB), located just east of the UBC Storage Pad Storm Water Retention Basin (see Attachment A, NEF Detailed Site Map). The TEEB is provided for the collection and containment of the liquid effluent discharge from the Liquid Effluent Collection and Treatment System. Total annual discharge to the TEEB will be approximately 2,535 m^3/yr (669,844 gal/yr). The liquid effluent will be discharged in batch releases. The calculated average discharged concentration of uranic compounds into the TEEB (0.22 mg/L) is well below the 5 mg/L concentration limit listed in 20.6.2.3103 NMAC. The ultimate disposal of the liquid effluent discharge will be through evaporation of water and permanent impoundment of the residual dry solids by product evaporation.

On an annual basis approximately 570 grams (1.26 lbs) of uranic compounds will be discharged to the basin. The compounds are uranyfluoride UO_2F_2 and uranium tetrafluoride UF_4 in both soluble and insoluble states.

Septic Tanks and Leachfields

The Septic System is designed to collect, transport and treat all domestic sewage generated at the NEF. The system is capable of handling approximately 10,600 gal/day based on a design number of employees of 422.

Based on the actual number of employees, 210, the system will receive approximately 5,300 gal/day.

The system includes multiple septic tanks and drain fields. A total of six septic tanks and fields are located around the site.

Conveyance, collection, treatment, distribution and disposal of septic wastes are provided by six separate septic systems including separate tanks and leachfields installed at various locations around the site (See Attachment A, NEF Detailed Site Map). Total annual design discharge will be approximately 3.87 million gal/yr. Designs will be consistent with NMED's Guidelines for Plans and Specifications for Discharge Permit Applications Using Septic Tank/Leachfields. Actual flows will be approximately 50 percent of the design values.

The percolation rate established by actual tests on the site is 8 minutes per inch. Utilizing this rate and allowing for 20-30 gallons per person per day, each person will require 9 linear foot of trench utilizing a 36 inch wide trench filled with 24 inches of open graded crushed stone.

The site population during operation is expected to be 210 persons. The building facilities are designed by architectural code analysis to accommodate up to 420 persons. Therefore a total of approximately 3,200 linear feet of percolation drain field will be required. Thus the combined area of the leachfields will be approximately 9,600 ft^2.

20.6.2.3109.C Approval Demonstration

The NEF Ground Water Discharge Plan addresses the three basins (Site Stormwater Detention Basin (SSDB), UBC Storage Pad Stormwater Retention Basin (USPSRB), and the Treated Effluent Evaporative Basin (TEEB)) and the series of septic systems. Periodic sampling and testing of discharges to the basins and sampling of ground water in monitoring wells at the site will assure no adverse ground water impacts.

The discharges resulting from the operation of the NEF are approvable under 20.6.2.3109.C NMAC because (1) the discharges will not exceed the ground water standards of 20.6.2.3103 NMAC and will not contain a toxic pollutant within the meaning of 20.6.2.7.VV NMAC; (2) the amount of effluent entering the subsurface from the TEEB will be minimized by use of double synthetic liners; (3) the amount of effluent entering the subsurface from the USPSRB will be minimized by use of a synthetic liner; and (4) the site discharges will not cause or contribute to concentrations in ground water in excess of the ground water standards in 20.6.2.3103 NMAC at a place of withdrawal for present or reasonably foreseeable future use.

Water quality impacts will be controlled during construction by compliance with the State of New Mexico's water quality regulations and the use of best management practices (BMPs) as detailed in the site Stormwater Pollution Prevention Plan (SWPPP). A SWPPP and a Spill Prevention, Control and Countermeasure (SPCC) plan will be implemented for the operating facility to minimize the possibility of spills of hazardous substances, minimize the environmental impact of any spills and ensure prompt and appropriate remediation.

The SSDB will receive runoff from various parts of the site including roads, parking areas and building roofs. The quality of the runoff will be typical of industrial facility stormwater runoff. The runoff is expected to meet the standards in 20.6.2.3103 NMAC. Some of the runoff will infiltrate into the ground under the basin. The infiltrated waters are expected to potentially recharge the limited ground water system at the 214 to 222 foot depth or return to the atmosphere via evapotranspiration. This ground water regime is not a reliable source of ground water supply. This is demonstrated by the difficulty in obtaining water samples at NEF and the adjacent facility, Waste Control Specialists (WCS), from this layer. No uranium or other plant constituents are expected to be contained in this runoff. The runoff is not expected to contain any of the toxic pollutants as defined in 20.6.2.7.VV NMAC. The runoff to the basin will be monitored as part of the site monitoring program. The basin has a single outlet and has sufficient freeboard so as not to overflow during extreme rainfall events (equal to the volume of the 24-hour, 100-year return period rainfall event). Therefore, based on the above, even if any of the infiltrated waters reach the ground water, the applicable ground water standards in 20.6.2.3103 NMAC will be met.

The USPSRB will receive runoff from the UBC Storage Pad and blowdown (cooling tower and heating boiler). The quality of the stormwater runoff will be typical of industrial facility stormwater runoff. The runoff and blowdown waters discharged to the basin are expected to meet the standards in 20.6.2.3103 NMAC. No uranium or other plant constituents are expected to be contained in this runoff. The runoff is not expected to contain any of the toxic pollutants as defined in 20.6.2.7.VV NMAC. The runoff to the basin will be monitored as part of the site monitoring program. The single lined basin will limit any infiltration into the ground.

The basin is designed with a synthetic membrane lining to minimize any infiltration into the ground and does not have an outlet. The synthetic liner will be used to impose a barrier between the contents of the basin and the underlying soils and potential access to ground water. Access to any ground water is further impeded by the impervious clay layer underlying the liner. The basin liner will be selected and installed in accordance with

NMED Guidelines for Liner Material and Site Preparation for Synthetically-Lined Lagoons, dated December 11, 1995. To provide adequate chemical resistance to the various liquids, the liner material may consist of High Density Polyethylene (HDPE) or Ethylene Interpolymer Alloy (Coolgard ® XR-5® or Ultra Tech®). Liner thickness will be specified during final design.

Any minor leakage past the liner will infiltrate into the ground under the basin. The infiltrated waters are potentially expected to recharge the limited ground water system at the 214 to 222 foot depth or return to the atmosphere via evapotranspiration. This ground water regime is not a reliable source of ground water at the site. This is demonstrated by the difficulty in obtaining water samples at NEF and WCS from this layer. The basin has no outlet and has sufficient freeboard so as not to overflow during extreme rainfall events (twice the volume of the 24-hour, 100-year return period rainfall event). Therefore, based on the above, it is concluded that even if any of the basin waters infiltrated into the ground, the applicable ground water standards provided in 20.6.2 NMAC will be met.

The TEEB will receive discharge from the plant Liquid Effluent Collection and Treatment System. The facility's Liquid Effluent Collection and Treatment System provides a means to control liquid effluent within the plant including the collection, analysis, and processing of plant liquid effluents for disposal. These effluents may contain uranic compounds, may be potentially contaminated with low-levels of uranic compounds, or may be non-contaminated. Treated effluent from the NEF Liquid Effluent Collection and Treatment System is analyzed prior to release and pH adjusted to fall within the range of 6.5 to 9.0, which complies with the ground water standards of 20.6.2.3103 NMAC. Other than uranic content and pH, the plant processes should not affect or introduce any of the other water contaminants listed in 20.6.2.3103 NMAC to the NEF effluent that is discharged to the TEEB. The discharge to the TEEB is not expected to contain any of the toxic pollutants as defined in 20.6.2.7.VV NMAC. The discharge to the basin will be monitored as part of the site monitoring program. The basin has no outlet and has sufficient freeboard so as not to overflow during extreme rainfall events (twice the volume of the 24-hour, 100-year return period rainfall event).

The TEEB is designed with double synthetic membrane linings to minimize any infiltration into the ground and does not have an outlet. The synthetic liners will be used to impose a barrier between the contents of the basin and the underlying soils and potential access to ground water. Access to any ground water is further impeded by the impervious clay layer underlying the lower liner. The basin liners will be selected and installed in accordance with NMED Guidelines for Liner Material and Site Preparation for Synthetically-Lined Lagoons, dated December 11, 1995. To provide adequate chemical resistance to the various liquids, the liner material may consist of HDPE or Ethylene Interpolymer Alloy (Coolgard ® XR-5® or Ultra Tech®). Liner thickness will be specified during final design.

Any minor leakage past the primary liner will be collected by the leak detection system. Annual discharge to the basin is 669,884 gallons per year (approximately 2.1 acre-feet per year). The double-lined basin with leak detection will impose a barrier between the contents of the basin and the underlying soils and potential access to ground water. Based on the above, all applicable ground water standards provided in 20.6.2.3103 NMAC will be met.

Moreover, any leak past the primary (upper) liner would be collected by a piping collection system and routed to a monitored sump. The sump will be continuously monitored with a level indicator. If the sump is collecting liquid the level monitor will alert site staff and compensatory measures will be taken. The secondary (lower) liner will preclude discharge to the subsurface in the case of a breach in the primary liner.

Catastrophic failure of both TEEB liners is not considered credible. Such a failure, if it were to occur, should be noticeable to plant staff due to rapid draining of any discharge into the TEEB. Given the average discharge to the TEEB is 1,835 gal/day, corrective actions would be taken before appreciable amounts of liquid reached the

subsurface. Since the discharge liquid effluent quality meets all 20.6.2.3103 NMAC standards, no adverse impacts would occur. The corrective actions taken would restore the system integrity.

The Site Septic Systems will discharge to the subsurface approximately 5,300 gallons per day for the 210 site employees. The quality of the discharge will be typical of sanitary wastes. The infiltrated waters are expected to potentially recharge the limited ground water system at the 214 to 222 foot depth or return to the atmosphere via evapotranspiration. This ground water regime is not a reliable source of ground water. This is demonstrated by the difficulty in obtaining water samples at NEF and WCS from this layer. The deeper Santa Rosa aquifer is well isolated from the septic system discharge. No uranium or other plant constituents are expected to be contained in this discharge. The discharge is not expected to contain any of the toxic pollutants as defined in 20.6.2.7.VV NMAC. The total surface area of the leach fields is 9,600 square feet. Given this area, the discharge rate of 5,300 gallons per day and approximately a 200-foot vertical separation between the leach fields and the limited ground water, travel time to the limited ground water source from the leach fields will be substantial. Therefore, based on the above, even if any of the infiltrated waters were to reach the ground water, the applicable ground water standards in 20.6.2.3103 NMAC will be met.

The limited ground water at a depth of 214 to 222 feet below the ground surface at NEF has a TDS concentration range between 2,500 to 6,650 mg/L. This range is based on data collected at NEF and WCS.

Very limited ground water was encountered at a depth of 214 to 222 feet below the ground surface at the site. To be ground water for which the standards are applicable, 20.6.2.7.Y NMAC requires that the water be capable of entering a well in sufficient amounts to be utilized as a water supply. The limited ground water source is demonstrated by the difficulty in obtaining ground water samples in the installed monitoring wells at the site and the slow recovery of the wells after sampling. Based on field studies at both NEF and WCS, sufficient ground water in this zone is not available under either site. The much deeper Santa Rosa aquifer is isolated from the surface by a substantial thickness of Chinle clay. Depth to the Santa Rosa aquifer is approximately 244 m (800 ft). This aquifer is separated from the surface by a thick (over 180 feet) red bed clay unit, the Chinle Formation. At the adjacent facility, WCS, water from the Santa Rosa is used as fire water and for some process systems. It is not used for potable water. Water from the Santa Rosa is also used locally as a source of water for cattle. These site features (limited ground water at a depth of 214 to 222 feet below the site and the well isolated Santa Rosa aquifer) negate any significant potential that ground water could be adversely impacted by plant discharges to the subsurface.

Based on the above, the discharges resulting from the operation of the NEF are approvable under 20.6.2.3109.C NMAC.

6.a.iii. Describe the operations and maintenance plan that will be followed to ensure the system is maintained as described. At a minimum the plan must include monthly inspections of all wastewater treatment and disposal units. Attach additional pages as necessary.

<u>The Operations and Site Storm Water Detention Basin</u>

The SSDB will be inspected monthly for debris, obstructions and other impediments to water flow. The SSDB outfall discharge point will also be inspected monthly to ensue the outfall is unobstructed so that storm water overflow is discharged in a controlled manner that does not cause soil erosion or wash-out areas near New Mexico Highway 234. Maintenance issues identified during the periodic inspections will be addressed to ensure proper system operation by implementing corrective measures. Since the SSDB contains only site rainwater runoff, there is little, or no possibility of plant-related contaminants entering the SSDB. The areas adjacent to and nearby the SSDB will protected from site sources that could introduce contaminants through

the use of best management practices (BMPs). These BMPs will include: 1) site stabilization actions such as placing crushed stone on top of disturbed soil in areas of heavy runoff; 2) protection of disturbed areas with silt fencing and straw bales; 3) berming of all above-ground diesel storage tanks; 4) any hazardous materials will be handled by approved methods and shipped offsite to disposal sites, no hazardous waste will be stored onsite longer than 90 days; and 5) a Spill Prevention Control and Countermeasure (SPCC) plan will be implemented for the facility to identify potential spill substances, sources and responsibilities.

UBC Storage Pad Storm Water Retention Basin

The basin and UBC Storage Pad conveyance systems will be inspected on a monthly basis for debris, obstructions and other impediments to water flow. The UBC Storage Pad will be inspected for cracks in the concrete surface, and vegetation growth between expansion joints in the concrete surface. The basin will be inspected for build-up of solids. Maintenance issues identified during the periodic inspections will be addressed to ensure proper system operation by implementing corrective measures.

The UBC Storage Pad Storm Water Retention Basin is designed with two cells, each designed to evaporate 50% of the annual influent flow, allowing for periodic outages of each cell, while maintaining the plant operations. The design depth of the basin will be sufficient to allow for one annual outage of one month duration for inspection and maintenance of each cell. Influent flow will be measured and totalized; basin gauges will be provided. An all-weather access road will be provided to the basin to allow year-round maintenance of the basin and its conveyances. The added concentrations of biocides, corrosion inhibitors, dissolved solids, sulfates and pH adjusting chemicals in blowdown waters will be monitored and recorded periodically in accordance with the manufacturers' recommendations.

Periodic sampling of the basin water and basin sediments will allow for detection of radioactivity in the very unlikely event of radioactivity from the exterior of the Uranium Byproduct Cylinders (UBCs) entering the basin at above background levels.

Treated Effluent Evaporative Basin

The basin will be inspected on a monthly basis for debris, obstructions, other impediments to water flow and for the build-up of solids in the basin. Maintenance issues identified during the periodic inspections will be addressed to ensure proper system operation by implementing corrective measures.

The TEEB is designed with two cells, each designed to evaporate 50% of the annual influent flow, allowing for periodic outages of each cell, while maintaining the plant operations. The design depth of the basin will be sufficient to allow for one annual outage of one month duration for inspection and maintenance of each cell. Influent flow will be measured and totalized; basin gauges will be provided. An all-weather access road will be provided to the basin to allow year-round maintenance of the basin and its conveyances. The basin area will be enclosed with animal-friendly fencing to prevent wildlife access and unauthorized personnel. A surface net or equivalent covering will placed over the basin to prevent the landing of waterfowl and other birds.

Two synthetic liners will be utilized to impose two barriers between the contents of the TEEB and the soil underneath. Access to the soil underneath is further impeded by the impervious natural clay layer. In addition, a drainage/sump leak detection system will be installed between the liners to detect liner failures. The leak detection system will be inspected monthly to monitor for any leakage. Periodic sampling of the TEEB water and sediment will ensure that the uranic concentrations of both are not above the levels expected for the discharge effluent from the Liquid Effluent Collection and Treatment System.

Site Septic System

The site septic system consists of six separate tanks each with one or more leachfields. Each tank will be periodically inspected and pumped for solids and each distribution manifold in the leachfield will be inspected, and if necessary, cleaned and repaired at the time of the solids pumping. A sample of the solids will be collected and analyzed for isotopic uranium to verify the absence of plant uranic materials in the tank sludge.

6.b. Monitoring Plan [20.6.2.3106.C.5 and 20.6.2.3107.A.1-9 NMAC]:

The monitoring plan must describe how the facility will be monitored to ensure the discharge will not adversely impact ground water quality. The plan must include all monitoring locations (effluent sampling, monitoring wells, lagoons, soil sampling, plant tissue analysis, etc.). Monitoring locations must be included on the facility map.

The NEF Monitoring Plan developed for the Ground Water Discharge Plan will incorporate the applicable requirements outlined in 20.6.2.3107 NMAC, in addition to other monitoring requirements at the NEF. Features of the overall monitoring plan are described below. Further details are provided in Attachment E.

The NEF Detailed Site Map (see Attachment A) indicates the location of onsite sampling locations. Media monitored includes soil, vegetation, basin water, basin sediment and ground water.

Each year, the NEF will submit a summary report of the environmental sampling program to the NMED, including all associated data as required by 20.6.2 NMAC. The report will include the types, numbers, and frequencies of environmental measurements and the identities and activity concentrations of facility-related nuclides found in environmental samples, in addition to the minimum detectable concentrations (MDC) for the analyses and the error associated with each data point. Significant positive trends in activities will also be noted in the report, along with any adjustment to the program, unavailable samples, and deviation to the sampling program.

6.b.i. Monitoring Locations. In the following tables, identify all monitoring locations. Add additional rows as necessary to include all monitoring locations.

Flow, Effluent and Ground Water Monitoring

Monitoring Location	Lat	Long	Northing	Easting	Elevation (also specify at what point in well casing)	Sampling Frequency per year	Reporting Frequency per year	Water or Soil Contaminant Type (please refer to 20.6.2.7.uu, and 20.6.3103 NMAC)
SSDB[1]	32° 25' 51"	103° 04' 41"	522743	928641	3393	Quarterly	Annual	Oil & grease, pH, uranium isotopic, fluoride, TDS, metals, nitrates, sulfate
USPSRB[2]	32° 26' 02"	103° 03' 03"	523955	937027	3396	Quarterly	Annual	Oil & grease, pH, uranium isotopic, fluoride, TDS, metals, nitrates, sulfate
TEEB[3]	32° 26' 2"	103° 4' 55"	523841	927428	3409	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, metals, sulfate
GW Well MW-1[4]	32° 26' 32"	103° 04' 58"	526870	927135	Well not installed	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, sulfate
GW Well MW-2[4]	32° 26' 13"	103° 04' 46"	524962	928186	Well not installed	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, sulfate
GW Well MW-3[4]	32° 26' 13"	103° 05' 05"	524943	926558	Well not installed	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, sulfate
GW Well MW-4[4]	32° 25' 54"	103° 05' 04"	523023	926666	Well not installed	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, sulfate
GW Well MW-5[4]	32° 25' 47"	103° 04' 32"	522348	929417	Well not installed	Quarterly	Annual	pH, uranium isotopic, fluoride, TDS, sulfate
LECTS[5] Discharge	To be provided in final design	To be provided in final design	To be provided in final design	To be provided in final design	To be provided in final design	Batch Release	Annual	pH, isotopic uranium, both soluble and insoluble forms
Septic Tanks	Varies	Varies	Varies	Varies	Varies	Prior to Pumping	Annual	isotopic uranium, both soluble and insoluble forms

1. Site Storm Water Detention Basin: flow only occurs during precipitation events
2. UBC Storage Pad Storm Water Retention Basin
3. Treated Effluent Evaporative Basin
4. Ground Water Monitoring Well
5. Liquid Effluent Collection & Treatment System pre-release tank sampling.

*Identify the sampling locations as designated or named by the facility.

Soil, Plant Tissue and Other Sampling

Monitoring Location*	Lat[1]	Long[1]	Sampling Frequency per year	Reporting Frequency per year	Water or Soil Contaminant Type
land application area soil sampling	NA				
land application area plant tissue analysis	NA				
Other: Soil/Vegetation	32° 25' 56"	103° 5' 26"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 25' 50"	103° 4' 55"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 25' 47"	103° 4' 32"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 25' 49"	103° 4' 45"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 26' 8"	103° 4' 27"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 26' 33"	103° 4' 35"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 26' 32"	103° 4' 58"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Soil/Vegetation	32° 26' 20"	103° 5' 26"	Quarterly[2]	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Sediment SSDB	32° 25' 52"	103° 4' 35"	Annual	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Sediment UBCSRB	32° 26' 7"	103° 5' 2"	Annual	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides
Other: Sediment TEEB	32° 26' 2"	103° 4' 55"	Annual	Annual	Isotopic U, Fluoride, metals, organics, pesticides and herbicides

1. Approximate locations, exact locations will be determined during final design
2. Samples in growing seasons for vegetation only

6.b.ii. Describe in detail the sampling protocols that will be used for sample collection at all monitoring locations. Attach additional pages as necessary.

The sample collector shall be required to don the appropriate personal protective equipment, safety equipment and have a companion collector in remote areas or when collecting at sites that may involve physical hazards (basins, culverts, septic tanks, etc.). In addition, all collection containers shall be labeled with the site identification information, GPS coordinates, date and time of the collection, the collectors name and phone number and the requested analyses. A laboratory sample submission form and a sample chain of custody form will be completed by the collector before transferring custody of the sample to someone else. Normal chain-of-custody procedures will be observed at all times and tamper-proof tape should be used on all container covers and lids. All sampling will be covered by procedures and sample collectors will be trained to these sampling procedures.

Sampling protocol details are provided in Attachment F for the following media:

- Water
- Basin Bottom Sediment
- Vegetation
- Soil
- Ground Water

The protocols address the actual collection of the sample, the amount of the sample, field addition of preserving chemicals if required, the container, container labeling, sample submission forms and shipping requirements.

6.b.iii. Standard Monitoring Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

[X] All monitoring wells will be installed according to NMED Monitoring Well Construction and Abandonment Guidelines (copy enclosed).

[X] All monitoring wells (if 3 or more monitoring wells are on site) will be surveyed to a common permanent benchmark and that the survey will be submitted to the NMED, GWQB within 60 days of installation of all monitoring wells. Survey data will include northing, easting, and elevation to the nearest hundredth of a foot. One of the wells may be used as the benchmark.

[X] This facility will measure the depth to ground water in each monitoring well to the nearest hundredth of a foot prior to purging and sampling, and that three well volumes will be purged from each monitoring well prior to sample collection.

[ ] This facility will complete land application data sheets (LADS, copy enclosed) documenting the amount of nitrogen applied to each land application area if applicable. The LADS will incorporate the wastewater volume and analytical results of the wastewater testing to determine total nitrogen applied to each field.

Not Applicable (for land application of waste only)

6.c. Contingency Plan [20.6.2.3107.A.10 NMAC]:

The contingency plan must describe the actions to be taken if Regulation 20.6.2.3103 NMAC ground water standards are exceeded or if toxic pollutants are present (20.6.2.7.uu) as a result of discharges regulated under the proposed permit, and to cope with failure of the discharge permit or system.

6.c.i. Standard Contingency Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

[X] This Facility will comply with the following contingency language:

In the event that monitoring indicates ground water standards are violated or may be violated during the term of the discharge permit or upon post closure monitoring, this facility will collect a confirmation sample from the monitoring wells within 15 days to confirm the initial sampling results. Upon confirmation of contamination, all ground water monitoring will be conducted monthly and a corrective action plan will be submitted to the NMED. The corrective action plan will include a site investigation to define the source, nature and extent of ground water contamination and a proposed abatement option; and a schedule for implementation. The site investigation and abatement option must be consistent with the requirements and provisions of Regulations 20.6.2.4101, 20.6.2.4103, 20.6.2.4106.E, 20.6.2.4107, and 20.6.2.4112 NMAC. The corrective action plan will be submitted to NMED for approval within 30 days of confirmation of ground water contamination, and will be initiated within 30 days of NMED approval.

[X] This facility will comply with the following contingency language:

In the event of a spill or release that is not as prescribed in the approved discharge permit, this facility will take immediate corrective action to contain or mitigate the damage caused by the discharge and will initiate the notifications and corrective actions as required by Regulation 20.6.2.1203 NMAC. Within 24 hours discovery of the incident, this facility will verbally notify NMED and provide the information outlined in Regulation 20.6.2.1203.A.1. NMAC. Within 7 days of discovering the incident, this facility will submit a written verifying the oral notification and providing any additional pertinent information or changes. Within 15 days of the incident, this facility will submit a corrective action plan describing actions taken and/or to be taken to remedy the impact of the unauthorized discharge.

6.c.ii. Specific Contingency Plan:

Describe any additional specific corrective actions or contingencies that will be taken to cope with failure of the discharge system: Attach additional pages as necessary.

Specific contingency planning includes periodic inspections of the discharge systems and investigation of all spills and release. In the event of a tear in any of the basin synthetic liners that results in a release to the environment, an effluent spill or unauthorized discharge, the Ground Water Quality Bureau will be notified pursuant to the standard permit condition 6.c.i.

The Permitee will assess damages to the environment and attempt to isolate any discharge, and corrective measures will be implemented immediately.

6.d. Closure Plan [20.6.2.3107.A.11 NMAC]:

The closure plan must describe the closure actions to be taken to prevent Regulation 20.6.2.3103 NMAC ground water standards from being exceeded, or the introduction of a toxic pollutant in ground water after cessation of operations. At a minimum, the closure plan must include a description of closure measures, post closure monitoring plans, and financial assurance (if required by NMED).

6.d.i. Specific Closure Plan: Describe the specific closure activities to ensure that ground water quality will be protected after cessation of operations. The plan shall include plugging, removal, and/or filling of all conveyance, collection, treatment, distribution and disposal features in order to prevent future discharges at the facility. The plan must also describe how all liquid and solid wastes will be removed and disposed of according to local, state, and federal laws. The plan must also describe how disturbed areas will be backfilled to blend with the original surface topography to prevent future ponding and to prevent a discharge at the facility from occurring after the cessation of operations. Attach additional pages as necessary.

Closure Plan

The plan for decommissioning the NEF is to promptly decontaminate or remove all materials from the site which prevent release of the facility for unrestricted use. This approach will avoid long-term storage and monitoring of wastes on site.

At the end of useful plant life, the enrichment facility will be decommissioned such that the site and remaining facilities may be released for unrestricted use as defined in 10 CFR 20.1402. Enrichment equipment will be removed; only building shells and the site infrastructure will remain. All remaining facilities will be decontaminated where needed to acceptable levels for unrestricted use.

Each of the three site basins and the septic system will be closed in accordance with any pertinent regulations.

The Treated Effluent Evaporative Basin is expected to contain residue from the effluent treatment systems. The sediment and soil over the top of the uppermost liner and the liner itself will be disposed of, if required, at a low-level waste facility. The leak detection system components will also be removed and disposed of appropriately. Excavations and berms will be leveled to restore the land to a natural contour.

The UBC Storage Pad Storm Water Retention Basin is not expected to contain any contaminants from the plant. The sediment and soil over the top of the liner and the liner itself will be tested and disposed of, as appropriate. Any components found containing contamination from the plant will be properly handled and disposed of in accordance with pertinent regulations. Excavations and berms will be leveled to restore the land to a natural contour.

During plant operation, a number of depleted uranium byproduct cylinders (UBC) will be stored on the UBC Storage Pad. These cylinders are sealed and checked prior to placement on the UBC Storage Pad and periodically inspected. All cylinders remaining on the UBC Storage Pad

at cessation of plant operation will be sent to a de-conversion facility or other off-site facility. The UBC Storage Pad will be addressed during facility decommissioning. No contamination of stormwater runoff from the UBC Storage Pad is expected during the life of the facility. This is corroborated by experience from the operating experience of similar facilities in Europe. However, the runoff will be monitored as part of the site monitoring program.

The Site Storm Water Detention Basin sediment will be sampled and tested and removed for proper disposal as needed. Excavations and berms will be leveled to restore the land to a natural contour.

Closure of site septic systems will be done in accordance with NMED's Guidelines for septic systems. Residual materials will be sampled and tested for contamination prior to system abandonment.

Ground water monitoring wells will be decommissioned in keeping with state regulations at a time when they are no longer required for monitoring activities.

All relevant closure documents will be retained post-decommissioning for the time period required for their retention.

LES intends to utilize a surety method, such as a letter or line of credit or surety bond, to provide reasonable assurance of decommissioning funding as required by 10 CFR 40.36(e)(2) and 70.25(f)(2). Finalization of the specific financial instruments to be utilized will be completed, and signed originals of those instruments will be provided to the NRC, prior to LES receipt of licensed material. LES intends to provide continuous financial assurance from the time of receipt of licensed material to the completion of decommissioning and termination of the license. Since LES intends to sequentially install and operate the Separations Building Modules over time, financial assurance for decommissioning will be provided during the operating life of the NEF at a rate that is in proportion to the decommissioning liability for these facilities as they are phased in.

The surety method adopted by LES will provide an ultimate guarantee that decommissioning costs will be paid in the event LES is unable to meet its decommissioning obligations at the time of decommissioning. The surety method will also be structured and adopted consistent with applicable NRC regulatory requirements and in accordance with NRC regulatory guidance contained in NUREG-1727.

6.d.ii. Standard Closure Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

This facility will comply with the following closure requirements:

[X] The discharger will notify NMED at least 30 days prior to cessation of operations and will provide a schedule for implementation of the closure plan.

[X] This facility will conduct post closure monitoring at the frequency and locations prescribed under the active permit for a period approved by NMED. If Regulation 20.6.2.3103 NMAC ground water standards are violated or toxic pollutants are present during post closure monitoring, this facility will implement the contingency plan required in the active permit.

[X] All monitoring wells will be plugged and abandoned in accordance with NMED Monitoring Well Construction and Abandonment Guidelines once NMED has agreed in writing that post closure ground water monitoring may cease.

[X] Once NMED has approved all closure activities, this facility will submit a letter requesting termination of the discharge permit.

TECHNICAL SUPPORT

The following information must be submitted as required by Regulation 20.6.2.3106, and 20.6.2.3109 NMAC.

7. Other Discharge Locations [20.6.2.3106.C.2 NMAC]:

7.a. List the locations of any other discharges at this facility not covered by this permit but permitted under the New Mexico Liquid Waste Disposal Regulations, Hazardous Waste Management Regulations, Federal Clean Water Act (NPDES), and any un-permitted discharges. Add rows as necessary to include all other discharge locations.

No other discharge locations are present.

Discharge Type (septic tank/leachfields, surface water discharges, etc.)	Permit Identification	Discharge Location Description

7.b. Area Map: On the appropriate United States Geological Survey (USGS) 7.5 minute topographic quadrangle map, identify the location of all water supply wells, injections wells, seeps, springs, bodies of water, and watercourses within one mile of the outside perimeter of the discharge site.

The area map is provided in Attachment G.

The local road map is provided in Attachment H.

Directions to the site: Drive 5 miles eastbound from the City of Eunice, New Mexico, on New Mexico Highway 234. The NEF site is approximately one mile west of the Texas border on the north side of New Mexico Highway 234.

8. **Flooding Potential** [20.6.2.3106.C.4 NMAC]:

8.a. Describe the flooding potential of the discharge site based on the latest Federal Emergency Management Agency flood plain map or site specific analysis:

Flooding Potential

The NEF site is located above the 100 or 500-year flood elevation. The NEF site is contained within the Landreth-Monument Draw Watershed. The closest water conveyance is Monument Draw, a typically dry, intermittent watercourse located about 2.0 miles west of the site. The maximum historical flow for Monument Draw is 1,280 ft^3/s measured June 10, 1972. All other historical maximum measurements are below 70 ft^3/s.

The location of the NEF site is not mapped by the FEMA flood mapping program due to the lack of surface hydrologic features in the area and low flood potential.

Flood information for the City of Eunice from FEMA is provided in Attachment I.

The potential for flash flooding is considered minimal due to the high percolation rate of the soils in the vicinity of the site.

Source for Information:FEMA and the National Enrichment Facility Environmental Report (Part of NRC License Application – Submitted December 2003.

8.b. Describe the methods used to control flooding, run-on and run-off at the discharge site (berms, diversion channels, etc.):

Based on setting the grade level of the facility above the maximum foreseeable flood level, the only potential flooding of the facility results from local intense rainfall. Protection against flooding is provided by establishing the facility floor level at 0.15 m (0.5 ft) above the high point of finished grade elevation and all roads are set at least 0.45 m (1.5 ft) below this. Based on these design features, the probability of the water level reaching the building finished floor is negligible.

Storm water runoff from the site is directed to two storm water basins as described in Section 6.a.ii of the Permit Application.

A diversion ditch and berm will be constructed along the northern portion of the site to divert upstream overland sheet flow around the NEF buildings. This diversion ditch will be designed to divert the 24-hour, 100-year rainfall. The eastern portion of the diversion ditch will be routed through the Site Storm Water Detention Basin (SSDB). The storm water from the diversion ditch will be routed through the basin, but will not be changed in either volume or runoff rate. The western portion of the diversion ditch will be discharged into the natural terrain and will flow south via overland flow to the existing multiple culverts under New Mexico Highway 234.

Mitigation measures will be in place to minimize potential impact on soils from storm water runoff. These include the following items:

- Cleared areas not covered by structures or pavement will be stabilized by acceptable means as soon as practical.
- Surface runoff will be collected in temporary (during construction) and permanent retention/detention basins.
- Drainage culverts and ditches will be stabilized and lined with rock aggregate/rip-rap to reduce flow velocity and prohibit scouring.

9. Geologic and Soil Information [20.6.2.3106.5 NMAC]:

9.a. Lithology: Describe the lithology and thickness of each geologic unit below the discharge site and indicate which units bear water. This information may be obtained from a driller's log or geologic report. Include photocopies of all well logs with the application. Add rows as necessary to include all units.

Unit Description	Thickness (feet)	Water Bearing (Y/N)
Mescalero Sands/Blackwater Draw Formation: Dune or dune-related sands	0 to 10	N
Gatuña/Antlers Formation: Pecos River Valley alluvium consisting of Sand and silty sand with interbedded caliche near the surface and a sand and gravel base layer. Light yellow to reddish brown, dry, very dense silty fine- to medium-grained, caliche-cemented sand with some caliche lenses.	25 to 50	N
Chinle Formation (Dockum Group redbeds): clay mudstone interbedded with silt and sandstone layers. Red to purple, very hard, high plasticity clay.	180 to 450	Y: isolated silt layer only
Santa Rosa Formation (Dockum Group) Sandy red beds, conglomerates and shales.	450 to 760	Y

Source for Information:

National Enrichment Facility Environmental Report, Revision 1; February 2004, Table 3.3-1 based on: BLM, 2003; TTU, 2000; DOE 1997b:

BLM, 2003. Assessment Of Water Resources In Dewey Lake And Santa Rosa Formations, Lea County, New Mexico, A Proposal Through BLM Field Office, Allan Sattler (Sandia National Laboratories) and Jerry Fant (BLM), September 16, 2003.

TTU, 2000. Geology of the WCS-Flying W Ranch, Andrews County, Texas, Texas Tech University Water Resources Center, April, 2000.

DOE, 1997b. Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement, Chapter 4, Description of the Affected Environments, U.S. Department of Energy, September, 1997.

Hydrologic Investigation, Section 32; Township 21 Range 38, Eunice, NM, Cook-Joyce, Inc, Austin TX, 19 Nov, 2003.

Note: Attachment C is a copy of the Final Report of the Hydrologic Investigation for the site. It provides all backup ground water information for the site including borings logs for the nine shallow ground water investigation borings, the five geotechnical borings and the construction summaries for the three monitoring wells.

9.b. Soil Map: Attach a copy of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey map and descriptive information for soil(s) associated with the discharge site.

The soil map (see Attachment J) is a taken from the latest county soil survey: USDA Soil Survey of Lea County New Mexico, U.S. Department of Agriculture, Soil Conservation Service in Cooperation with New Mexico Agricultural Experiment Station, January 1974. Site soils are generally sandy, derived from dune sands or the underlying alluvium, are locally cemented by or contain caliche.

.0. **Signatures:**

Owner: I certify that I am the legal owner of the property in which all discharges will occur. I certify that I am knowledgeable about the information contained in this application, and believe the information is true, complete and accurate.

Print Name: _____

Signature: _____ Date _____

Responsible Party* (if property is leased or operated by someone other than the owner):

I certify that I am knowledgeable about the information contained in this application, and believe the information is true, complete and accurate.

Print Name: R. M. Krich
Vice President - Licensing, Safety and Nuclear Engineering
Louisiana Energy Services, LP

Signature: _____ Date 4/26/04

* Enclose a signed copy of the lease agreement between the responsible party and the owner of the property on which the proposed discharge will occur. Lease agreement should be valid for the duration of the discharge permit or until the discharge permit is modified to reflect a new lessee.

Attachment K provides the Grant of Easement and Right of Way from the State of New Mexico to LES and the Agreement Regarding Land Use Restrictions or Conditions from the State of New Mexico.

SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS FOR GROUND WATER DISCHARGE PERMITS

The New Mexico Water Quality Control Commission Regulations (20.6.2 NMAC) public notice requirements of 20.6.2.3108 NMAC were revised **effective September 15, 2002** to require the applicant to provide notice to neighboring properties during the discharge permit application process. This document summarizes the applicant's public notice requirements and provides answers to frequently asked questions.

The Water Quality Control Commission Regulations are available on the New Mexico Environment Department's (NMED) internet web site. The web site address is:

www.nmenv.state.nm.us

Click on the heading "Environmental Protection Regulations", then "Water Quality-- Ground and Surface Water Protection". The public notice regulations are in Section 20.6.2.3108 NMAC. You can also call the Ground Water Quality Bureau at (505) 827-2900 and we will mail you a copy of the regulations.

STEP 1 – SELECTING AND IMPLEMENTING A PUBLIC NOTICE OPTION

Anyone applying for a new permit or renewing or modifying an existing permit must provide public notice to neighboring properties (See FAQs). The applicant must select one of three public notice options by checking the selected box on page 3 of the Ground Water Discharge Permit Application. **When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to implement the selected public notice option.** The applicant must implement the public notice option within 30 days of submitting their application to the NMED. The applicant's public notice options are:

Public Notice Option 1

Posting a sign: The sign must be prominently posted in a conspicuous public location at or near the existing or proposed facility for 30 days. The sign should be visible so that passersby are likely to see it. The sign will be a synopsis of the full public notice prepared by NMED.

and

Sending direct notice to adjacent property owners: The public notice prepared by NMED must be sent to all "adjacent property" "owners of record" by certified mail, return receipt requested.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Public Notice Option 2

Posting a sign: The sign must be prominently posted in a conspicuous public location at or near the existing or proposed facility for 30 days. The sign should be visible so that passersby are likely to see it. The sign will be a synopsis of the full public notice prepared by NMED.

and

Placing a display advertisement: The display ad must be at least two inches by three inches in size and must be published in a newspaper of general circulation in the location of the proposed discharge. The display ad will be a synopsis of the full public notice prepared by NMED.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Public Notice Option 3

Sending direct notice to property owners within 1/2 mile of the discharge site: The public notice prepared by NMED must be sent to all property "owners of record" within ½ mile of the discharge site by certified mail, return receipt requested.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Step 2 - Providing Proof that the Applicant Completed Public Notice

Proof of Notice

Within 15 days of completion of the public notice requirements above, the applicant must submit proof of notice to NMED. Depending on the option selected, proof of notice may include list of property owners' names and addresses, copies of certified mail return receipts, a copy of the published display ad indicating the newspaper and date of publication, and an affidavit of sign posting. If the department determines that the notice provided is inadequate, the department may require additional notice in accordance with the requirements above.

Important Definitions

The following definitions are excerpted from the Water Quality Control Commission regulations, 20.6.2 NMAC.

> **"adjacent properties"** means properties that are contiguous to the discharge site or property that would be contiguous to the discharge site but for being separated by a public or private right of way, including roads and highways.
>
> **"discharge site"** means the entire site where the discharge and associated activities will take place.
>
> **"owner of record"** means an owner of property according to the property records of the tax assessor in the county in which the discharge site is located.

Frequently Asked Questions

Where can I get a copy of the new public notice regulations?
The Water Quality Control Commission Regulations are available on the New Mexico Environment Department's (NMED) internet web site. The web site address is:

www.nmenv.state.nm.us

Click on the heading "Environmental Protection Regulations", then "Water Quality-- Ground and Surface Water Protection". The public notice regulations are in Section 20.6.2.3108 NMAC.

You can also call the Ground Water Quality Bureau at (505) 827-2900 and we will mail you a copy of the regulations.

When do the new public notice regulations go into effect?
September 15, 2002

Do the new public notice regulations apply to me?
The regulations apply to all applications for new permits, renewals, and modifications that are submitted to NMED on or after September 15, 2002. Page 3 of the application has a section for the applicant to select one of three public notice options. If you submitted an application for a new discharge permit, renewal or modification before September 15, 2002, then the regulations will not apply to you until you renew or modify your permit, even if your permit has not yet been issued.

Where at my facility should the sign be posted?
In many cases the sign should be posted in a location near the front entrance to the facility where it is likely to be seen by passersby. Other conspicuous public locations can be approved in advance by the Ground Water Quality Bureau if they are more likely to provide notice to the public. You can contact the Ground Quality Bureau at the number below to obtain approval for an alternate sign posting location.

Where do I get the sign that will be posted at my facility?
When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and a laminated poster with an invoice for $15.00.

How long do I have to keep the sign up at my facility?
The sign must be posted for 30 days.

What properties are considered to be "adjacent" to my property?
"Adjacent properties" are those properties that are contiguous to the discharge site or that would be contiguous to the discharge site except for being separated by a public or private right of way, including roads and highways.

Who are property "owners of record" and where can I find their names and addresses?
An "owner of record" is an owner of property according to the property records of the tax assessor in the county in which the discharge site is located. You can call your county tax assessor and they can, in most cases, provide names and addresses of owners of record within 24 hours. You will need to provide the tax assessor with the location of your discharge site and ask for names and addresses of adjacent properties.

Is there a letter format I should use for the direct notice to property owners?
When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to provide direct notice to property owners.

What if there are no adjacent properties other than properties I own?
If the applicant owns the adjacent properties, then they must implement Option 2 by posting a sign, placing a display ad and notifying the property owner if the owner is different from the applicant.

Is there a required format for the display advertisement?
When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to place a display advertisement.

What proof must I provide to the NMED to demonstrate that I provided public notice in accordance with the new regulations?
Within 15 days of completion of the public notice requirements, the applicant must submit proof of notice to NMED. Depending on the option selected, proof of notice may include a list of property owners' names and addresses, copies of certified mail return receipts, a copy of the published display ad indicating the newspaper and date of publication, and a signed affidavit that the sign was posted. If the department determines that the notice provided is inadequate, the department may require additional notice in accordance with the new regulations.

Who do I contact if I have additional questions?
You may contact Jerry Schoeppner, Chief of the Ground Water Quality Bureau or Maura Hanning, Manager of the Ground Water Pollution Prevention Section at (505) 827-2900.