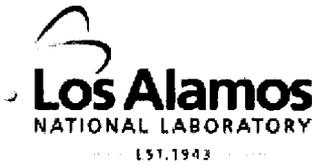


54

ENTERED



Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666

National Nuclear Security Administrations
Los Alamos Site Office, A316
3747 West Jemez Road
Los Alamos, New Mexico 87545
(505) 667-5794/FAX (505)667-5948

Date: **JAN 2 - 2013**
Refer To: ENV-RCRA-12-0275
LAUR: 12-26884

Mr. Jerry Schoeppner, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2250
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Schoeppner:

SUBJECT: AMENDMENTS TO THE NOTICE OF INTENT TO DISCHARGE POTABLE WATER FOR DUST SUPPRESSION AT DISPOSAL PIT 38 AND RESPONSE TO NMED REQUEST FOR ADDITIONAL INFORMATION

In accordance with Subsection A of 20.6.2.1201 New Mexico Administrative Code (NMAC), on August 13, 2012, the U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) submitted a notice of intent (NOI) to discharge potable water for dust suppression and equipment decontamination at Technical Area 54 (TA-54) disposal Pit 38 (ENV-RCRA-12-0189). Subsequently, on September 17, 2012, DOE/LANS submitted an amendment to the above-referenced NOI to reflect the proposed use of water conservation methods (ENV-RCRA-12-0209). Further modifications to the September 17, 2012, amended NOI are now necessary because the number of waste bins earmarked for disposal at Pit 38 has been reduced by nearly 60%, from approximately 350 to 150; approximately 200 waste bins have been dispositioned for off-site disposal. In addition, in an October 15, 2012, letter (Enclosure 1) the New Mexico Environment Department (NMED), Ground Water Quality Bureau, requested additional information. This letter provides the NMED with both the necessary amendments and the additional information requested.



DOE/LANS Amendments to the September 17, 2012, NOI

As indicated above, the number of waste bins earmarked for disposal at Pit 38 has been reduced from approximately 350 to 150; approximately 200 waste bins have been dispositioned for off-site disposal rather than for disposal at Pit 38. Disposal of the remaining 150 waste bins will still require a maximum daily discharge of approximately 1,800 gallons of potable water for dust suppression but the total maximum volume of water discharged to Pit 38 will be reduced by approximately 50%, from approximately 90,000 gallons to approximately 45,000 gallons. The amended NOI is provided in Enclosure 2.

NMED Request for Additional Information

In an October 15, 2012, letter (Enclosure 1) the NMED, Ground Water Quality Bureau, requested additional information. The information requested by the NMED is as follows:

1. **NMED Request.** *Information in the NOI provided the dimensions and capacity for Pit 38 however, it did not specify to which areas within Pit 38 disposal of the decontamination water would occur and by what methods. NMED requests the methods of disposal and distribution along with the dimensions of the actual discharge area be submitted.*

DOE/LANS Response (Methods of Decontamination Water Disposal and Distribution)

As stated in the September 17, 2012, amended NOI, potable water used to decontaminate waste bins and transport trucks will be collected, stored, reused, and, when necessary, properly dispositioned. None of the water used to decontaminate waste bins or transport trucks will be discharged into Pit 38. Only potable water used for dust suppression will be discharged into Pit 38 to protect worker health and safety.

DOE/LANS Response (Dimensions of Actual Discharge Area)

The 150 waste bins earmarked for disposal in Pit 38 will be placed at the eastern end of the pit (Enclosure 3). The dimensions of the actual discharge area—the area receiving discharges of potable water for dust suppression—will be approximately 200 ft by 45 ft (9,000 sq ft).

2. **NMED Request.** *Please provide a copy of the Solid Waste Management Unit Assessment Report to NMED upon completion.*

DOE/LANS Response. DOE/LANS will submit to the NMED Ground Water Quality Bureau a copy of DOE/LANS's response to the NMED Hazard Waste Bureau's request for a Solid Waste Management Unit Assessment Report under separate cover.

In closing, as indicated in the August 13, 2012, NOI, once the campaign to dispose the remaining 150 waste bins is complete, all future disposal operations at Pit 38 will be conducted without water (i.e., dry) or a new NOI will be submitted to the NMED by DOE/LANS.

Please contact Robert S. Beers by telephone at (505) 667-7969 or by email at bbeers@lanl.gov if you have questions regarding these amendments. We hope that you find the enclosed information sufficient so that you may render a final determination on this NOI.

Sincerely,



Terrill W. Lemke
Group Leader, (Acting)
Water Quality & RCRA Group (ENV-RCRA)
Los Alamos National Security, LLC

Sincerely,



Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Site Office
U.S. Department of Energy

MTS:GET:RSB/lm

Enclosures:

1. Copy of October 15, 2012, NMED letter requesting additional information on Pit 38 NOI
2. Amended NOI for the Discharge of Potable Water into Pit 38 for Dust Suppression
3. Figure 1. Pit 38 Dimensions and Proposed Waste Placement

Cy: Bruce Yurdin, NMED/SWQB, Santa Fe, NM, w/enc.
John E. Kieling, NMED/HWB, Santa Fe, NM, w/enc.
Stephen M. Yanicak, NMED/DOE/OB, w/enc., (E-File)
Gene E. Turner, LASO-EPO, w/enc., (E-File)
Hai Shen, LASO-EPO, w/enc., (E-File)
Carl A. Beard, PADOPS, w/o enc., A102
Michael T. Brandt, ADESH, w/o enc., (E-File)
Bruce G. Schappell, ADEP, w/o enc., (E-File)
Alison M. Dorries, ENV-DO, w/o enc., (E-File)
Victoria A. George, REG-DO, w/enc., (E-File)
Kathryn M. Roberts, REG-SP, w/enc., (E-File)
Craig R. Douglass, CAP, w/enc., (E-File)
Sean B. French, CAP-WPS, w/enc., (E-File)
Derek G. Faulk, CAP-WS, w/enc., (E-File)
Michael T. Saladen, ENV-RCRA, w/enc., (E-File)
Robert S. Beers, ENV-RCRA, w/enc., K490
IRM-RMMSO, w/enc., (E-File)
ENV-RCRA, Correspondence File, w/enc., K490

ENCLOSURE 1

COPY OF OCTOBER 15, 2012, LETTER FROM NMED REQUESTING
ADDITIONAL INFORMATION

ENV-RCRA-12-0275

LAUR-12-26884

Date: JAN 2 - 2013

WS 10/17/12



NEW MEXICO
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building
1190 St. Francis Drive
PO Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2918 Fax (505) 827-2965
www.nmenv.state.nm.us

DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 15, 2012

✓ Anthony R. Grieggs
Group Leader, Water Quality & RCRA
P.O. Box 1663, MS M704
Los Alamos, NM 87545

Gene Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Site Office
U.S. Department of Energy
Mail Stop A316,
Los Alamos, NM 87545

RE: Response to Notice of Intent to Discharge; Request for Additional Information for Potable Water Dust Suppression and Decontamination at Technical Area (TA) 54 Disposal Pit 38, Los Alamos National Laboratory, AI:856 (PRD20120005)

Dear Msrs. Grieggs and Turner:

The New Mexico Environment Department (NMED) received a Notice of Intent (NOI) on August 13, 2012 (copy enclosed) for the discharge of approximately 7,000 gallons per day (gpd) of potable water used for the decontamination and dust suppression of 350 low-level radioactive waste bins at TA-54 Pit 38 for a period of approximately 22 days. An amendment to the NOI, dated September 17, 2012 (copy enclosed) was received by NMED on September 18, 2012 and stated that the previously proposed volume would be reduced to 1,700 gpd through internal management and conservation efforts. The proposed discharge is located at TA-54, approximately two miles west of White Rock, in Section 31, Township 19N, Range 07E, within the boundaries of Los Alamos National Laboratory, Los Alamos County.

NMED has reviewed the Notice of Intent in accordance with the New Mexico Water Quality Control Commission Regulations (20.6.2 NMAC). The following additional information is necessary in order for NMED to determine if the proposed discharge will require a Ground Water Discharge Permit:

Mssrs. Grieggs and Turner, AI:856 (PRD20120005)

October 15, 2012

Page 2

1. Information in the NOI provided the dimensions and capacity for Pit 38 however, it did not specify to which areas within Pit 38 disposal of the decontamination water would occur and by what methods. NMED requests that methods of disposal and distribution along with the dimensions of the actual discharge area be submitted.
2. On October 1, 2012, the NMED Hazardous Waste Bureau required a Solid Waste Management Unit Assessment be conducted for Pit 38 and submitted by January 2, 2013 (copy enclosed). Based on the potential outcome of this assessment and the authority for regulation under the March 2005 Compliance Order on Consent, the NMED Ground Water Quality Bureau is requesting a copy of the report prior to making a determination on whether a Discharge Permit would be required for the proposed discharge. Please provide a copy of the Solid Waste Management Unit Assessment Report to NMED upon completion.

Following submission of the requested additional information, NMED will respond to your Notice of Intent. If you have any questions, please contact either Jennifer Fullam at (505) 827-2909 or me at (505) 827-0027.

Sincerely,



Clint Marshall, Program Manager
Pollution Prevention Section
Ground Water Quality Bureau

CM:JF

Enc: Notice of Intent dated August 13, 2012
Amendment to Notice of Intent dated September 17, 2012
Letter from NMED Hazardous Waste Bureau dated October 1, 2012

Cc: Robert Italiano, District Manager, NMED District II (w/enclosures)
NMED Santa Fe Field Office (w/enclosures)
County File (w/enclosures)
James Hogan, NMED SWQB (w/o enclosures)
Richard Powell, NMED SWQB (w/o enclosures)
John Kieling, NMED HWB (w/o enclosures)
Steven Yanicak, NMED-DOE-Oversight Bureau (w/o enclosures)
Hai Shen, LASO-EPO, Los Alamos National Laboratory, Los Alamos NM 87545 (w/o enclosures)
Carl Beard, PADOPS, Los Alamos National Laboratory, A102, Los Alamos, NM 87545 (w/o enclosures)
Michael T. Brandt, ADESH, Los Alamos National Laboratory, K491, Los Alamos, NM 87545 (w/o enclosures)

Mssrs. Grieggs and Turner, AI:856 (PRD20120005)

October 15, 2012

Page 3

Bruce G. Schappell, ADEP, Los Alamos National Laboratory, Los Alamos, NM
87545 (w/o enclosures)

Alison M. Dorries, ENV-DO, Los Alamos National Laboratory, K491, Los Alamos,
NM 87545 (w/o enclosures)

Victoria George, REG-DO, Los Alamos National Laboratory, Los Alamos, NM 87545
(w/o enclosures)

Katherine Roberts, REG-SP, Los Alamos National Laboratory, Los Alamos, NM
87545 (w/o enclosures)

Andrew R. Baumer, WPS, Los Alamos National Laboratory, J910, Los Alamos, NM
87545 (w/o enclosures)

Sean French, WPS Los Alamos National Laboratory, J910, Los Alamos, NM 87545
(w/o enclosures)

Derek Faulk, WPS-WS Los Alamos National Laboratory, J967, Los Alamos, NM
87545 (w/o enclosures)

Robert Lechel, ENV-ES, Los Alamos National Laboratory, K490, Los Alamos, NM
87545 (w/o enclosures)

Michael Saladen ENV-RCRA, Los Alamos National Laboratory, K490, Los Alamos,
NM 87545 (w/o enclosures)

Bob Beers, ENV-RCRA, Los Alamos National Laboratory, K490, Los Alamos NM,
87545 (w/enclosures)

ENCLOSURE 2

**AMENDED NOI FOR THE DISCHARGE OF POTABLE
WATER INTO PIT 38 FOR DUST SUPPRESSION**

**ORIGINAL NOI SUBMITTED AUGUST 13, 2012 (ENV-RCRA-12-0189)
AMENDED NOI SUBMITTED SEPTEMBER 17, 2012 (ENV-RCRA-12-0209)**

ENV-RCRA-12-0275

LAUR-12-26884

Date: JAN 2 - 2013



New Mexico Environment Department
Ground Water Quality Bureau

**Ground Water Quality Bureau –
Pollution Prevention Section
Notice of Intent**

2nd AMENDMENT

(Original NOI: August 13, 2012; 1st Amendment to NOI: September 17, 2012)

1. Name and mailing address of person proposing to discharge:

Craig R. Douglass
Los Alamos National Security, LLC
P.O. Box 1663, Mail Stop M996
Los Alamos, NM 87544

Work Phone: 505-665-2469
Cell/Home Phone: 505-231-9478
Fax: na
Email: craigd@lanl.gov

Point of Contact: Robert Beers, 505-667-7969, bbeers@lanl.gov

2. Name of facility: Los Alamos National Laboratory (LANL).
3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Low-Level Waste Disposal Pit 38 is located at Technical Area (TA)-54. See Enclosure 1 (See original NOI), Location Map.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Dust suppression during low-level radioactive waste disposal.

LANL proposes to discharge potable water into Pit 38 during a 22-day campaign to dispose of low-level radioactive bulk soil waste from ~150 waste bins.

Pit 38 is regulated by the US Department of Energy (DOE) under the Atomic Energy Act (AEA). Pit 38 is not part of the Consolidated Unit 54-013(b)-99 that is covered under the Compliance Order on Consent (Consent Order). However, a SWMU Assessment Report will be submitted to NMED-HWB under separate cover.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Discharges into Pit 38 are potable water from the Los Alamos County Municipal Water Supply System that has been used in the following application:

- Suppression of dust during the emptying of waste bins into Pit 38, as directed by LANL's Radiation Protection Division

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

The source of the dust suppression water is the Los Alamos County Drinking Water Supply System. No contaminants are expected at concentrations greater than the federal Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (MCLs) or the State of NM Regulation 3103 ground water standards (20.6.2.3103 NMAC).

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

As originally constructed, disposal Pit 38 is generally rectangular with approximate dimensions of 600 ft x 80 ft x 60 ft (length x width x depth). In 2012, disposal Pit 38 was extended to the east to provide additional disposal capacity; disposal of LLW has not yet occurred in the extension. The approximate dimensions of the extension are 250 ft x 60 ft x 35 ft. Enclosure 3 (See original NOI) provides plan and profile views of Pit 38. Table 1 below provides information on the surface area and volume of Pit 38.



New Mexico Environment Department
Ground Water Quality Bureau

**Ground Water Quality Bureau –
Pollution Prevention Section
Notice of Intent**

Table 1: Area and Volume for Disposal Pit 38

Unit	Area (sq ft)	Volume (cu yd)
Pit 38 as originally constructed	58,600	78,800
Pit 38 extension	17,850	15,700

Pit 38 is currently designated as a Radiation Area (RA) and Contamination Area (CA). Trucks with a full 20 cubic yard or 25 cubic yard bin enter the CA and back up to the pit edge. At this time, dust suppression water is applied to the ground at the rear of the truck/bin where the bin will be emptied. The bin door is opened, which is at the rear of the bin and truck, and the bin is tilted from the front using hydraulic lifts on the truck so that the soil and or debris waste comes out the rear door and into the pit. Dust suppression water is applied to the waste coming out of the bin and ground where the waste is falling during this process.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

1800 gal/day (15 gallons per minute X 15 minutes per bin X 8 bins per day = 1800 gallons per day)

NOTE: This is a limited duration discharge; the maximum daily discharge will occur over approximately 22 business days. Discharges will commence once LANL receives approval from NMED Ground Water Quality Bureau. Once the campaign to empty the remaining ~150 waste bins is complete, all future disposal operations at Pit 38 will be conducted without water (i.e., dry) or a new notice of intent (NOI) to discharge will be submitted to the NMED by DOE/LANS.

9. Estimated depth to ground water (ft): 900 ft below ground surface (bgs)

Pit 38 is sited on Mesita del Buey on the Pajarito Plateau. Mesita del Buey is one of the drier mesas at LANL and the pores within the vadose zone are unsaturated. No significant perched-intermediate groundwater occurs beneath Pit 38. Borehole 54-25105 at TA-54 was drilled to a depth of 700 feet bgs and did not encounter perched groundwater. The seven regional monitoring wells drilled in the vicinity also did not encounter perched groundwater. The regional aquifer beneath Pit 38 is at a depth of approximately 900 feet bgs.

Signature: _____

Date: _____

12/19/12

Printed name: Craig R. Douglass

Title: Program Director

Please return this form to:

NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ENCLOSURE 3

FIGURE 1. PIT 38 DIMENSIONS AND PROPOSED WASTE PLACEMENT

ENV-RCRA-12-0275

LAUR-12-26884

Date: **JAN 2 - 2013**

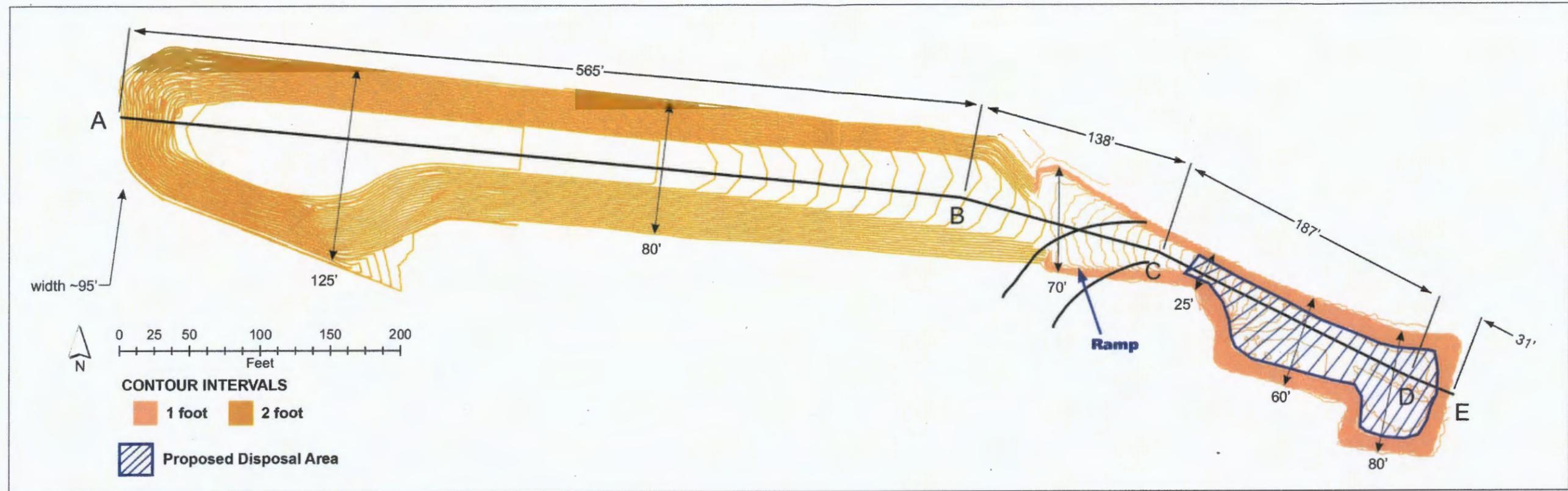


Figure 1 Pit 38 Dimensions and Proposed Waste Placement