

1-15-2015

# Submittal of Final Monitoring Reports in Support of the Corrective Action Complete Request Process for Solid Waste Management Units 68, 149, 154, and 8/58

Sandia National Laboratories/NM

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Department of Energy  
National Nuclear Security Administration  
Sandia Field Office  
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Albuquerque, NM 87185



JAN 15 2015

Mr. David Cobrain  
Manager  
Permits Management Program  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Dr. East, Bldg. 1  
Santa Fe, NM 87505

Subject: Submittal of Final Monitoring Reports in Support of the Corrective Action Complete Request Process for Solid Waste Management Units 68, 149, 154, and 8/68, Sandia National Laboratories, New Mexico

Dear Mr. Cobrain:

In an April 8, 2010 letter (NMED 2010), the New Mexico Environment Department (NMED) provided instruction to the Department of Energy/National Nuclear Security Administration (DOE/NNSA) and Sandia Corporation (Sandia) regarding the Class 3 Permit Modifications for five Solid Waste Management Units (SWMUs) located at Sandia National Laboratories/New Mexico (SNL/NM). In that April 2010 letter the NMED required additional corrective actions, and specifically requested additional groundwater characterization at:

- SWMU 68 - Old Burn Site
- SWMU 149 - Building 9930 Septic System
- SWMU 154 - Building 9960 Septic System and Seepage Pits
- SWMUs 8/58 - Open Dump/Coyote Canyon Blast Area

The NMED also required submittal of Work Plans, installation of groundwater monitoring wells, submittal of Well Installation Reports, and groundwater monitoring at SWMUs 8/58 (two new monitoring wells) and 68 (three new monitoring wells). In subsequent correspondence, the DOE/NNSA and Sandia submitted (SNL/NM June 2010) Sampling and Analysis Plans (SAPs) to conduct groundwater sampling at existing monitoring wells at SWMU's 149 and 154, which were approved by NMED with modifications (NMED December 2010). As defined in the approved SAPs and Work Plans, Sandia has sampled these wells for the required eight quarters and continued to sample an additional two to five quarters.

The analytical results from the groundwater samples have been presented to NMED in the Environmental Restoration Operations Consolidated Quarterly Reports submitted from June 2011 through present (for example: SNL/NM June 2011 and SNL/NM April 2014); and also summarized in the Annual Groundwater Monitoring Reports (SNL/NM September 2012 and SNL/NM September 2013). The samples were analyzed for the SWMU-specific constituents that may include: Volatile Organic Compounds, Semivolatile Organic Compounds (SVOCs), High Explosive compounds, Nitrate Plus Nitrite, major anions (as bromide, chloride, fluoride, and sulfate), major cations (as calcium, magnesium, potassium, and sodium), alkalinity, Target Analyte List metals plus uranium, hexavalent chromium,

perchlorate, total cyanide, radionuclides by gamma spectroscopy, gross alpha/beta activity, and isotopic uranium.

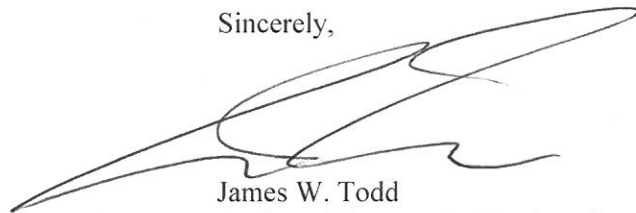
The following is a brief summary of the analytical results of groundwater sampling as of April 1, 2014.

- SWMU's 68 and 149—Groundwater has been sampled and analyzed for 10 and 12 quarters, respectively; none of the analytical results for the groundwater samples exceeded any Maximum Contaminant Level (MCL).
- SWMUs 8/58—Groundwater has been sampled and analyzed for 10 quarters. Except for fluoride, and a one-time detection of benzo (a) pyrene, none of the analytical results from the groundwater samples from SWMUs 8/58 exceed an MCL. SWMU 8/58 is located in a fluorspar mining district, and the occurrence of fluoride in the groundwater is attributed to the local, natural sources (SNL/NM September 2013). The one-time occurrence of benzo (a) pyrene is attributed to the use of volatilization of a fuel source from a portable heater inside the sampling vehicle during a subfreezing sampling event.
- SWMU 154—Groundwater was sampled and analyzed for 8 quarters in the 2001- 2004 timeframe, and also sampled and analyzed for the past 13 quarters (since March 2011). The arsenic concentrations in the well at SWMU 154 are stable quarter-to-quarter, and over the past 13 years, have ranged from 0.028 to 0.060 mg/L which exceeds the MCL for arsenic. The arsenic is attributed to natural sources (SNL/NM September 2013). No other MCLs have been exceeded in groundwater from any of these monitoring wells.

In summary, the additional characterization has been completed; groundwater from the monitoring wells at SWMUs 8/58, 68, 149, 154 has been sampled and analyzed in excess of eight quarters, the analytical results are stable and none of the analytical results indicate that DOE/NNSA and Sandia operations have impacted groundwater quality. DOE/NNSA and Sandia have prepared final reports that summarize the groundwater sampling performed at these wells and are submitting these reports to the NMED as addenda to the previously submitted Corrective Action Complete justifications. This appears to complete the activities associated with the conditions for completing the Corrective Action Complete petition process contained in the April 10, 2010, letter.

If you have questions, please contact John Weckerle of my staff at (505) 845-6026.

Sincerely,



James W. Todd  
Assistant Manager for Engineering

4 Enclosures

cc: See Page 3

References: See Page 4

4 Enclosures:

1. Corrective Action Complete Report; an Addendum to Justification for Class III Permit Modification March 2006, SWMU 68, Operable Unit 1334, Old Burn Site
2. Corrective Action Complete Report; an Addendum to Justification for Class III Permit Modification March 2006, SWMU 149, Operable Unit 1295, Building 9930 Septic System (Coyote Test Field)
3. Corrective Action Complete Report; an Addendum to Justification for Class III Permit Modification March 2006, SWMU 154 Operable Unit 1295 Building 9960 Septic System and Seepage Pits, Coyote Test Field
4. Corrective Action Complete Report; an Addendum to Justification for Class III Permit Modification January 2008, SWMUs 8 and 58, Operable Unit 1332, Canyons Blast Area

cc w/enclosures:

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## References:

New Mexico Environment Department (NMED), April 2010. "Class 3 Permit Modification Requests for Granting Corrective Action Complete Status for 26 SWMUs/AOCs (Request of March 1, 2006) and 5 Other SWMUs/AOCs (Request of January 7, 2008), Sandia National Laboratories, EPA ID #NM5890110518, HWB-SNL-06-007 and HWB-SNL-08-001," April 8, 2010.

New Mexico Environment Department (NMED), December 2010. "Approval with Modifications, Response to April 8, 2010 Letter, Groundwater Monitoring Plan for SWMUs 149 and 154," December 21, 2010.

Sandia National Laboratories, New Mexico (SNL/NM), March 2006a. Supplemental Response and Proposal for Corrective Action Complete Solid Waste Management Units 8 and 58, Foothills Test Area, Sandia National Laboratories, Albuquerque, New Mexico.

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Sandia National Laboratories, New Mexico (SNL/NM), March 2006c. Justification for Class III Permit Modification March 2006 SWMU 154 Operable Unit 1295 Building 9960 Septic System and Seepage Pits Coyote Test Area, Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories, New Mexico (SNL/NM), March 2006d. Justification for Class III Permit Modification March 2006 SWMU 68 Operable Unit 1334, Old Burn Site, Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories, New Mexico (SNL/NM), January 2008. Justification for Class III Permit Modification, January 2008, SWMUs 8 and 58, Operable Unit 1332, Canyons Blast Area, Volume 1 of 4, Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories, New Mexico (SNL/NM), June 2010. "U.S. Department of Energy/Sandia Corporation Response to the New Mexico Environment Department letter of April 8, 2010, entitled, Class 3 Permit Modification Requests for Granting Corrective Action Complete Status for 26 SWMUs/AOCs (Request of March 1, 2006) and 5 Other SWMUs/AOCs (Request of January 7, 2008) Sandia National Laboratories EPA ID #NM5890110518 HWB-SNL-06-007 and HWB-SNL-08-001," Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories, New Mexico (SNL/NM), June 2011. "Consolidated Quarterly Report, Second Quarter of Calendar Year 2011 (January, February, and March 2011)," Environmental Restoration Project, Sandia National Laboratories, New Mexico.

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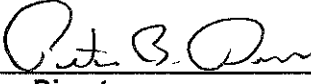
# CERTIFICATION STATEMENT FOR APPROVAL AND FINAL RELEASE OF DOCUMENTS

**Document title:** Environmental Restoration Operations Results of  
Groundwater Characterization at Solid Waste Management  
Units (SWMUs) 8/58, 68, and 149

**Document author:** Clinton Lum, Department 06234

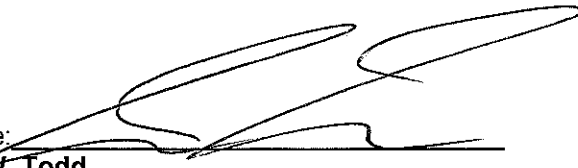
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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature:   
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Nuclear Energy & Fuel Cycle Programs  
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9/3/14  
Date

and

Signature:   
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U.S. Department of Energy  
National Nuclear Security Administration  
Sandia Site Office  
Owner and Co-Operator

14 Jan 2015  
Date


# CERTIFICATION STATEMENT FOR APPROVAL AND FINAL RELEASE OF DOCUMENTS

**Document title:** Environmental Restoration Operations Results of  
Groundwater Characterization at Solid Waste Management  
Unit (SWMU) 154

**Document author:** Clinton Lum, Department 06234


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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

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14 Jan 2015  
Date