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September 10, 2010

George J. Rael, Federal Projects Director
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Michael J. Graham, Associate Director
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RE: CERTIFICATES OF COMPLETION
UPPER LOS ALAMOS CANYON AGGREGATE AREA
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-10-056

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *Request for Certificates of Completion for Sixteen SWMUs and Nine AOCs in the Upper Los Alamos Canyon Aggregate Area* (Request), dated June 15, 2010 and referenced by EP2010-01284. Results of the site investigations were presented in the *Investigation Report for the Upper Los Alamos Canyon Aggregate Area, Revision 1,* dated February 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at following solid waste management units/ areas of concern (SWMUs/AOCs). The sites qualify for Corrective Action Complete without Controls status.

1. AOC 00-031(a) is the potentially contaminated soil beneath a former service station. Historical information and investigations conducted during 2008-2009 confirmed that the

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underground storage tanks (USTs) were no longer in place and the analytical results indicated that no residual contamination related to the tanks is present at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 00-031(a). NMED hereby issues this Certificate of Completion for AOC 00-031(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

2. AOC 00-034(b) was a suspected pit identified from a 1946 aerial photograph. Based on interviews and examination of aerial photographs it was determined that the identified pit was actually a staging area for soil or tuff fill material used for building roads and home sites and it was never used for land disposal of waste. No documentation of the pit was found. Based on the information provided by the Permittees, NMED has determined that the site does not need further corrective action. NMED hereby issues this Certificate of Completion for AOC 00-034(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

3. SWMU 01-001(t), known as the eastern sanitary waste line, served several former buildings. Currently, the entire SWMU area is either landscaped or beneath streets, parking lots, and commercial buildings. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(t). NMED hereby issues this Certificate of Completion for SWMU 01-001(t) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

4. SWMU 01-001(u) is a branch of the western sanitary waste line that served former building J-2. Based on field screening and soil sample data collected during the radiological survey conducted in 1974-76, the site was not considered contaminated. Currently, the entire SWMU area is beneath residential buildings, parking lots, and a wooded area behind residential buildings. No piping was encountered during the 1994 borehole drilling. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(u). NMED hereby issues this Certificate of Completion for SWMU 01-001(u) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

5. AOC 01-003(c) was a surface disposal area located below the north rim of Los Alamos Canyon. During 1988 and 1996 site visits, no debris was located. During 1996 a few scattered pieces of nonhazardous debris were found near the site. Another site visit was conducted during 2008-2009, revealing that the area is bare with boulders; no debris was observed on the cliff face. The site does not exist anymore. NMED hereby issues this Certificate of Completion for AOC 01-003(c) pursuant to Section VII.E.6.b of the

Consent Order. Based on the information provided, no controls are necessary for this site.

6. AOC 01-006(g) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been regraded and developed for residential use. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-006(g). NMED hereby issues this Certificate of Completion for AOC 01-006(g) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

7. SWMU 01-006(o) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been completely regraded and rebuilt. Currently, the majority of the SWMU area is located beneath pavement and residential buildings. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(o). NMED hereby issues this Certificate of Completion for SWMU 01-006(o) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

8. SWMU 01-007(d) refers to four areas of suspected subsurface soil radiological contamination between buildings because of overflow of an industrial waste line in 1946. After the overflow all contaminated soil that could be removed was excavated and gravel was spread over the area. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(d). NMED hereby issues this Certificate of Completion for SWMU 01-007(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

9. SWMU 01-007(e) refers to suspected subsurface soil radiological contamination within the footprint of the former Sigma Building. Contaminated soil was excavated from three small areas within the footprint of Sigma Building. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(e). NMED hereby issues this Certificate of Completion for SWMU 01-007(e) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

10. SWMU 03-009(j) is a surface disposal area located west of warehouse 03-142. Interviews with site workers indicated that the soil fill contained construction debris. The site was never used for management of hazardous waste or hazardous constituents. The

area is partially covered by a paved road/parking lot. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 03-009(j). NMED hereby issues this Certificate of Completion for SWMU 03-009(j) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

11. SWMU 32-001 is the location of a former incinerator that was removed in 1954. It received combustible wastes from a medical research facility; the ash from the incinerator was disposed off-site. Investigations were conducted in 1993, 1996, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 32-001. NMED hereby issues this Certificate of Completion for SWMU 32-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

12. SWMU 41-001 is an inactive septic system that received sanitary waste from a guard house. Investigations were conducted in 1995, 2000, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 41-001. NMED hereby issues this Certificate of Completion for SWMU 41-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

The following sites have been investigated and found to pose no unacceptable risk under current and proposed future land use. The sites require controls and are eligible for Corrective Action Complete status with Controls.

13. SWMU 01-001(b), septic tank 135, served two former buildings that were determined by the Laboratory to be free of contamination in 1964. A radiological survey was conducted in 1974-76 that indicated that the tank and drainlines were not contaminated. The tank and drainlines were removed during 1974-1976 survey. Further investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination, if any. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 01-001(b) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

14. SWMU 01-001(c), septic tank 137, served former building D-2. The tank and its outfall were removed in 1975. Contaminated soil around the tank, drainlines and building D-2

were also removed in 1975. Investigations to define the nature and extent were conducted in 1992, 1993, and 2008-2009. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(c). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-001(c) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

15. SWMU 01-001(e), septic tank 139, served three former buildings. The tank became inactive in 1965 and was left in place. The tank was not located during the 1974-76 radiological survey and it was concluded that the tank had been previously removed. The entire SWMU area is under roads, residential buildings, driveways and sidewalks. Investigations were conducted in 1992 and 2008-2009 of the accessible areas. Evaluation of human health and ecological risk conducted on samples collected from accessible areas indicates that there is no potential unacceptable risk posed by SWMU 01-001(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. Additionally, the Permittees must investigate the areas of potential contamination that are currently inaccessible due to the presence of structures when they become accessible. The controls for the site are to monitor the storm water discharge for potential transport of contamination from the site, and to prevent exposure of receptors to potential subsurface contamination. This latter control is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-001(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned controls.

16. SWMU 01-003(e) was a surface disposal area located along the northern wall of Los Alamos Canyon. Concrete construction debris, piping, and other miscellaneous objects were observed at the site in the past. A major portion of this site is under fill material brought in by the private owner to extend the canyon rim farther south. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risks indicate that there is no potential unacceptable risk posed by SWMU 01-003(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-003(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

17. SWMU 01-006(d) is a drainline and associated outfall that served Building D-3 and discharged to hillside 137. Investigations were conducted in 1992, 1993, and 2008-2009

to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(d). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-006(d) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

18. SWMU 01-007(j) consists of twelve areas of suspected subsurface soil radiological contamination. These are small isolated contaminated areas in former Technical Area 1 discovered during a radiological survey conducted in 1976. Most of the contaminated soil was removed. These areas are developed with buildings, sidewalks, and roads. Investigations were conducted in 2008-2009 to define the nature and extent of contamination of accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(j). The Permittees must address the potential contamination beneath the structures when buildings and roadways are demolished or otherwise become accessible. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-007(j) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

19. AOC 01-007(k) was a suspected soil contamination area located near the U and W buildings. The area is now developed and contains structures and parking lots. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination in accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-007(k). The Permittees must investigate the areas beneath the structures for potential contamination at the time of demolition of these structures. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 01-007(k) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

20. AOC 03-008(a) is a firing site that was decommissioned in 1949. Review of engineering drawings and aerial photographs indicates that site would have been located near the intersection of Diamond Drive and Jemez Road and is no longer discernible. Currently the site is overlain by a parking garage. The Permittees must address the potential contamination beneath the site when the parking lot is decommissioned. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 03-008(a) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

21. AOC 43-001(b2) is a storm-drain outfall. It was permitted under the Laboratory's NPDES permit and was removed from the permit on January 11, 1999. Investigations conducted in 2008-2009 defined the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there are potential unacceptable risks under the residential scenario. However, there is no potential unacceptable risk posed under the recreational scenario. The current and reasonably foreseeable future land use for the site is recreational; the control is that the site cannot be used for residential purposes. NMED hereby issues this Certificate of Completion for SWMU 43-001(b2) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

Certificates of Completion are not issued for the following sites because the Permittees have not demonstrated that they do not pose unacceptable risk to human health or environment based on the current applicable standards.

22. AOC 00-031(b), is the potentially contaminated soil associated with the Zia Company motor pool facility. Two USTs and associated piping were removed in 1994. Soil contaminated with petroleum hydrocarbons was removed and the excavation was backfilled and compacted. The Permittees must submit human health and ecological risk evaluations for NMED review and approval. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.

23. AOC C-00-042 was a 2500-gallon steel waste-oil UST associated with the former automotive maintenance hanger at the Zia Company motor pool facility. The hanger was decommissioned and removed in 1962, and the land was subsequently transferred to Los Alamos County in 1967. The area was covered with fill material and asphalt. The tank and surrounding soil were removed in 1995 during VCA activities. The Permittees must conduct human health and risk evaluations using current standards. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.

24. SWMU 01-002 is an outfall and associated industrial waste line that is located in the southern and western portion of Technical Area 1. Several former buildings with various processes discharged waste to the industrial waste lines. In 2000, the SWMU was split into two portions: the waste line portion of the SWMU was designated SWMU 01-002(a)-00, and the outfall was designated as SWMU 01-002(b)-00. For investigation purposes SWMU 01-002(b)-00 was included in the consolidated unit 45-001-00. The Permittees have completed corrective action at SWMU 01-002(a)-00. However, NMED will not issue the Certificate of Completion for the site until risk assessments are conducted by comparing contaminant concentrations to current standards for both sites. NMED hereby denies the certificate of completion for SWMU 01-002.

25. SWMU 01-007(l) is an area of potentially contaminated fill material located under Trinity Drive. The fill material is suspected of containing construction debris and other potentially radioactively contaminated soil from the Building D area. Investigations were conducted in 1993 and 1996. Currently, the site is overlain by Trinity Drive. The Permittees must conduct risk assessments using current standards and demonstrate that the site does not pose an unacceptable threat to human health or the environment. NMED hereby denies the Certificate of Completion for the site.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

BRZ:nmd

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