



DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

Mr. John E. Kieling
Bureau Chief
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SEP 20 2019

Dear Mr. Kieling:

Subject: Request for Extension of Known Cleanup Sites Consent Order Milestone

The U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) is requesting an extension for submittal of Milestone #19, "Field Completion Letter Report for Aggregate Area Known Cleanup Sites Campaign: Solid Waste Management Units 15-007(c), 15-008(b), 39-002(a), and 46-004(q)." The fiscal year (FY) 2019 version of the Appendix B Milestones and Targets table in the 2016 Compliance Order on Consent (Consent Order) describes Milestone #19 as a "letter report documenting field completion of cleanups of remaining four sites currently known to exceed soil screening levels. Sites to be addressed are SWMU 39-002(a), SWMU 46-004(q), SWMU 15-008(b), and SWMU 15-007(c)."

The FY 2019 version of Appendix B stipulates submittal of Milestone #19 by September 30, 2019. EM-LA requests an extension for the above-mentioned milestone for good cause in accordance with the Consent Order, Section XXVIII, Extensions, C(7), "Any other event or series of events, including but not limited to new technical information or technological barriers mutually agreed to by the Parties as constituting good cause." The extension is also requested per Consent Order, Section XXXII, Force Majeure, C(1) "Act of God, natural disasters such as fire or flood, war, terrorism, insurrection, civil disturbance, or explosion." During the Aggregate Area Program Status meeting held between the New Mexico Environment Department (NMED) and EM-LA on August 28, 2019, EM-LA notified NMED of the potential need to extend the submittal of this milestone, explaining that new site characterization data and subsequent preliminary risk evaluations had identified large additional volumes of contaminated soil requiring excavation (1325 cubic yards versus 356 cubic yards originally planned). EM-LA followed up with NMED on September 3, 2019, to reiterate that an extension request may be pursued.

Milestone #19 includes the cleanup of four solid waste management units (SWMUs). Site cleanups were planned for each per site characterization results. SWMU 39-002(a), SWMU 46-004(q), and SWMU 15-007(c) have all been site characterized and the required cleanups have been completed as follows:

- SWMU 46-004(q):
 - Site cleanup and confirmation samples were planned per information presented in the "Supplemental Investigation Report for Upper Cañada del Buey Aggregate

- Area,” dated August 2016 (Los Alamos National Laboratory [LANL] document LA-UR-16-26150).
- Confirmation samples indicated the area originally planned for excavation as a Known Cleanup Site was inaccurate.
 - A total of 60 additional investigation samples were subsequently collected from 25 new sample locations to redefine the actual area requiring cleanup.
 - Approximately 3 cubic yards of excavated material was removed.
 - The field effort occurred from September 14 through December 13, 2018.
 - Field cleanup activities for SWMU 46-004(q) were completed.
 - SWMU 39-002(a), Area 2:
 - The field effort was initially planned per information presented in the “Investigation Report for North Ancho Canyon Aggregate Area, Revision 1,” dated January 2010 (LANL document LA-UR-10-0125).
 - Upon further data evaluation, EM-LA determined that site cleanup was deemed unnecessary, as soil screening levels and risk requirements had been met.
 - During the Aggregate Area Program Status meeting between NMED and EM-LA on June 26, 2019, NMED requested additional sampling information in order to define extent of contamination at the site.
 - Fifteen additional investigation samples at five locations were collected on August 20–21, 2019, to address NMED’s concern on extent of contamination.
 - Analytical results were delayed for over 3 weeks when Hurricane Dorian caused power outages and evacuations at the South Carolina contract laboratory (GEL Laboratories, LLC).
 - After receipt of the data, data analysis indicated that no site cleanup was required.
 - SWMU 15-007(c):
 - The field effort was planned per information presented in the “Supplemental Investigation Report for Threemile Canyon Aggregate Area, Revision 1,” dated July 2019 (Newport News Nuclear BWXT-Los Alamos, LLC [N3B] document EM2018-0011).
 - An x-ray fluorescence analyzer spectrometer was used to identify elevated concentrations of lead in soil, resulting in the collection of 78 additional samples.
 - The cleanup area was redefined per additional site characterization data.
 - Approximately 13.5 cubic yards of lead-contaminated soil was removed.
 - The field effort occurred from June 28 through September 6, 2019.
 - Field cleanup activities for SWMU 15-007(c) were completed.

The site cleanup effort of the fourth site, SWMU 15-008(b), began with field site characterization work as planned on June 28th. This startup date was planned in regards to the beryllium worker program implementation (medical surveillance requirements) and lifting of the Mexican spotted owl restrictions (March 1- mid May). The field work has produced new technical information, requiring excavation of approximately 1325 cubic yards of soil versus the approximately 356 cubic yards planned from initial site data. For SWMU 15-008(b), site cleanup area and volume along with confirmation sample locations were originally planned per information presented in the draft “Supplemental Investigation Report for Threemile Canyon Aggregate Area, Revision 1,” (N3B document EM2018-0011). The excavation area was

originally defined from existing soil sampling data for lead and copper. Site cleanup of 356 cubic yards of contaminated soil was completed on September 16, 2019.

Following mobilization in June for site characterization activities, approximately 279 new soil samples were collected during July and August 2019 in order to bound the excavation areas and make appropriate waste disposal determinations. Analytical results from the samples were evaluated and risk screening evaluations were conducted to approximate and redefine the cleanup area. This new technical information increased the original site cleanup volume from 356 cubic yards to approximately 1100 cubic yards requiring excavation. Analytical results from approximately 59 of the 279 new soil samples for SWMU 15-008(b) were delayed as Hurricane Dorian caused power outages and evacuations at the South Carolina contract laboratory (GEL Laboratories, LLC), resulting in a 5-day laboratory closure and an additional 7-day delay from limited staff availability and backlog from the initial closure. Analytical results for the 59 delayed soil samples were received from the laboratory and qualified on September 12–13, 2019, which resulted in the total site cleanup volume to increase to approximately 1325 cubic yards to achieve preliminary risk-screening calculations.

Excavating over 3.5 times the initial soil volume has extended the duration required to complete site cleanup. In addition, site access for cleanup at SWMU 15-008(b) was coordinated with the DOE National Nuclear Security Administration Los Alamos Site Office (NA-LA) Maintenance and Operation contractor Triad National Security, LLC (Triad) in November 2018, before the start of the project to avoid scheduling conflicts with Triad's mission-critical work. However, actual site availability has been and continues to be impacted by the mission-critical firing site activities, which have thus far limited access to this SWMU by 7 days in July and by 5 days in August. To work around the firing site schedule changes, work has been conducted 7 days a week, at 12-hour days, to compensate for some of the lost time; however, competing mission-critical activities continue to delay cleanup efforts. Finally, weather delays from lightning and heavy rain have resulted in cleanup delays of approximately 2 days per month.

Therefore, EM-LA asserts the new technical information resulting in a requirement to remove over three times the amount of soil originally planned for removal, and the force majeure impacts from Hurricane Dorian on obtaining analytical results to finalize soil removal volume and location, constitute good cause for extension of Milestone #19, compounded further by schedule delays from competing mission-critical work at the site.

The average volume of soil excavated per day is approximately 42 cubic yards; therefore, approximately 546 additional cubic yards of contaminated soil could potentially be excavated from September 18 through 30, barring weather and competing-mission delays. However, access delays to SWMU 15-008(b) from mission-critical firing site activities are expected to continue to reduce available field time. The current firing site schedule is expected to delay field access by another day during the week ending September 20 and by 2 calendar weeks in October. Weather is anticipated to continue to impact the field effort by 2 days per month (1 day from September 18 through 30). Therefore, the reduction of available field time by 2 days through September 30, 2019, is anticipated to reduce the volume that will be excavated to 462 cubic yards with the field crew continuing to work 7 days per week, from dawn to dusk. Approximately 410 cubic yards of contaminated soil has been excavated through September 17, 2019, with an additional 462 cubic yards scheduled for excavation through

September 30, 2019. Excavation of the remaining 453 cubic yards of contaminated soil is anticipated to require an additional 11 field days. Taking into consideration access delays from firing site activities, for which Triad is currently planning 14 calendar days, and anticipated lightning and other weather-related delays (2 days/month), EM-LA anticipates site cleanup at SWMU 15-008(b) will be complete by November 1, 2019. While cleanup continues at SWMU 15-008(b), N3B is preparing the letter report. The report will only need to be updated with SWMU 15-008(b) completion information, which will save days of letter report preparation. Therefore, EM-LA proposes to submit the Known Cleanup Sites Letter Report documenting field completion of cleanups for all four sites by November 15, 2019. EM-LA is continuing to work towards the September 30, 2019, milestone date, but completion is unlikely at this time because of the reasons for delay provided. No subsequent milestones or targets would be affected by this extension request.

If you have any questions, please contact Erich Evered at (505) 309-1360 (erich.evered@em-la.doe.gov) or Cheryl Rodriguez at (505) 257-7941 (cheryl.rodriguez@em.doe.gov).

Sincerely,



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EM-LA-N3B-30AD-00516