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Certified Mail - Return Receipt Requested

June 8, 2021

Mr. Brian D. Knight
Chief
Environmental Division (Building 163)
U.S. Army Garrison White Sands
White Sand Missile Range, New Mexico 88002-5000

**RE: FINAL DECISION CLASS 3 PERMIT MODIFICATION
CORRECTIVE ACTION COMPLETE (CAC) STATUS FOR FIVE SOLID
WASTE MANGEMENT UNITS (SWMUS) 116, 125, 126, 137, AND 162
WHITE SANDS MISSILE RANGE, NEW MEXICO
EPA ID#NM2750211235
HWB-WSMR-16-006, HWB-WSMR-18-015, HWB-WSMR-19-005**

Dear Mr. Knight,

The New Mexico Environment Department (NMED) hereby issues this approval of a modification to the December 2009 Resource Conservation and Recovery Act (RCRA) Hazardous Waste Permit (Permit) issued to the White Sands Missile Range (the Permittee). The modification consists of approval of Corrective Action Complete (CAC) status for five solid waste management units (SWMUs) based on permit modification requests submitted by the Permittee in November 2016, December 2018, and July 2019. The status of five SWMUs (SWMUs 116, 125, 126, 137, and 162) has been changed from Corrective Action Required to Corrective Action Complete without Controls. The unit listings have been moved from Permit Appendix 4 Table 4-1 (Solid Waste Management Units (SWMUs) & Areas of Concern (AOCs) Requiring Corrective Action) to Table 4-3 (SWMUs & AOCs Corrective Action Complete Without Controls).

In accordance with 20.4.1.901 of the New Mexico Administrative Code (NMAC), NMED provided public notice and conducted a 60-day public comment period from April 2, 2021 through June 1, 2021. One comment was received during the public comment period. NMED's response to the comment is included in Attachment 1.

The RCRA Permit, as modified, becomes effective thirty days after the date of the approval of this Class 3 Permit Modification and may be appealed under the provisions of 20.4.1.901.H NMAC and NMSA 1978, Section 74-4-14 of the Hazardous Waste Act.

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Hazardous Waste Bureau - 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6313
Telephone (505) 476-6000 - www.env.nm.gov

Mr. Knight
June 8, 2021
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Revised versions of Permit Appendix 4, Tables 4-1 and 4-3 are included in attachment 2. Please update your copy of the RCRA Permit by replacing your tables with the revised tables. If, in the future, new information becomes available indicating a release of hazardous waste or hazardous constituents at one or more of the SWMUs, NMED may require the Permittee to take additional corrective action.

If you have any questions regarding this letter, please contact Dave Cobrain of my staff at (505) 476-6055.

Sincerely,

**Chris
Catechis** Digitally signed
by Chris Catechis
Date: 2021.06.08
13:56:46 -06'00'

Chris Catechis
Acting Director
Resource Protection Division

Attachments:

cc: D. Cobrain, NMED HWB
L. Tsinnajinnie, NMED HWB
R. Murphy, NMED HWB
B. Avalos, WSMR
L. King, EPA Region 6 (EPA 6PD-N)

File: 2021 and Reading

Attachment 1

**Public Comment and NMED Response Regarding Proposal to Grant Corrective Action Complete with Controls (CAC) Status for Five Solid Waste Management Units
U.S. Army White Sands Missile Range**

Commenter	Summary of Public Comment	NMED Response
John Klingel	<p>Did the Firefighter Training Area, #162 contain any PFAS contaminates? If so, have they been completely cleaned up? While #162 may be on the Missile Range, the Tularosa basin has ground and surface waters critical to numerous species of NM wildlife.</p>	<p>The Permittee did not include PFAS as constituents of concern during its investigations because PFAS were not considered a constituent of concern by EPA at the time of the 2010 and prior investigation activities. According to the WSMR FY2008 Compliance-Related Cleanup Installation summary, SWMU 162 was in use prior to the 1980s and has not been used since. Soils were removed at the site from an area extending approximately 50 feet by 100 feet by 4 feet deep (approximately 740 cubic yards) and transferred to the Stallion Range Landfill in the 1980s. The Stallion Range Landfill also is a SWMU listed on the WSMR RCRA Permit. An additional 60 cubic yards of soil was removed from the site during the 2010 investigations. Evidence of contamination below 10 feet below ground surface (bgs) was not observed. There was no evidence that the identified contaminants at the site migrated to groundwater, which is approximately 190 ft below ground surface. Based on the age of the unit, its limited use, low annual precipitation, high evapotranspiration rate and the extent of the soil removal, it is unlikely that PFAS, if used at the site, would be present after the removal actions at levels and depths that would present an unacceptable ecological risk. PFAS are emerging contaminants. NMED is developing guidance concerning ecological risk related to PFAS. Should PFAS be detected in groundwater samples obtained from monitoring wells at the landfill where the soils were disposed or concerns related to ecological risk at sites where PFAS are suspected to be present be identified in the future, NMED will consider the concerns as reason to reopen corrective action at the site.</p>

Attachment 2

APPENDIX 4
SWMU, AOC, and Hazardous Waste Management Unit Tables

TABLE 4-1
SOLID WASTE MANAGEMENT UNITS (SWMUs) & AREAS OF CONCERN (AOCs) REQUIRING CORRECTIVE ACTION

UNIT ID NUMBER	UNIT DESCRIPTION	COMMENTS
SWMU 1	Floor Drain System for Building 1621	
SWMU 2	Bleach and Fixer Collection Containers	
SWMU 3	Bleach and Fixer Collection Containers	
SWMU 4	Bleach and Fixer Collection Containers	
SWMU 5	Bleach and Fixer Collection Containers	
SWMU 6	Bleach and Fixer Collection Containers	
SWMU 7	Silver Recovery Unit Tailing Tank	
SWMU 8	Waste Oil Tank & Sump at Building 1794	SWMUs 8 & 9 were combined into SWMU 8, Also identified as WSMR-36
SWMU 10	Wash Pad, Drains, & Sump at Building 1778	SWMUs 10 & 11 were combined into SWMU 10, Also identified as WSMR-74
SWMU 12	Wash Ramp, Drains, Sump, & Oil/Waste Separator @ Building 1778	SWMUs 12 & 13 were combined into SWMU 12, Also identified as WSMR-60
SWMU 14	Used Battery Accumulation Area at Main Post	SWMUs 14 & 15 were combined into SWMU 14, Also identified as WSMR-33
SWMU 16	Heavy Equipment Wash Pad & Drain at Building 1736	Also identified as WSMR-79
SWMU 17	Waste Underground Injection Pipe	Also identified as WSMR-73

SWMU 19	Steam Wash Pad & Oil/water Separator @ Building 1753	SWMUs 19 & 20 were combined into SWMU 9, Also identified as WSMR-80
SWMU 21	Main Post Former Fire Fighting Training Area & Pit	Also identified as WSMR-31
SWMU 22	Main Post Former Fire Fighting Training Area Waste Pile	Also identified as WSMR-32
SWMU 23	Hazardous Waste Tank at HELSTF	
SWMU 24	Hazardous Waste Tank at HELSTF	
SWMU 25	Hazardous Waste Tank at HELSTF	
SWMU 26	Vapor Recovery Unit @ HELSTF	
SWMU 27	Sanitary Treatment Impoundment at HELSTF	SWMUs 27, 28, 29, & 30 were combined into SWMU 27, Also identified as WSMR-44
SWMU 31	Chemical Waste Tank	Also identified as WSMR-43
SWMU 32	Chemical Waste Tank	Also identified as WSMR-43
SWMU 33	Fluorspar Tank	Also identified as WSMR-49
SWMU 34	Fluorspar Tank	Also identified as WSMR-49
SWMU 35	Ethylene Glycol Tank at HELSTF	Also identified as WSMR-50
SWMU 36	Ethylene Glycol Tank at HELSTF	Also identified as WSMR-50
SWMU 37	Waste Oil Accumulation Area at Building 26121 at HELSTF	
SWMU 40	Waste Oil Accumulation Drum	
SWMU 47	Former North Oscura Peak Landfill	Also identified as WSMR-71
SWMU 48	Former North Oscura Peak Landfills	SWMUs 48 & 49 were combined into SWMU 48, Also identified as WSMR-71
SWMU 62	Former STP Imhoff Tank	Also identified as WSMR-59
SWMU 63	Former Main Post Landfill 1A	Also identified as WSMR-39
SWMU 64	Former Main Post Landfill 2A	Also identified as WSMR-40

SWMU 66	Main Post Sewage Treatment Plant Subsurface Influent Line	Also identified as WSMR-17
SWMU 67	Main Post Sewage Treatment Plant (STP) Bar Screen and Grinder	Also identified as WSMR-17
SWMU 68	North Primary Clarifiers at the STP	SWMUs 68 through 78 were combined into SWMU 68, Also identified as WSMR-17
SWMU 69	South Primary Clarifiers at the STP	Also identified as WSMR-17
SWMU 79	Sludge Beds at the STP	Also identified as WSMR-29
SWMU 80	STP Sludge Waste Pile Main Post	Also identified as WSMR-30
SWMU 81	Boiler at the STP	
SWMU 84	Effluent Pipeline at the STP	
SWMU 85	STP Discharge at Playa Lake	Also identified as WSMR-42
SWMU 86	Sanitary Landfill at the Main Post	Also identified as WSMR-81
SWMU 87	Construction Landfill	Also identified as WSMR-82
SWMU 102	Burn Pan	
SWMU 103	Scrap Metal Yard	
SWMU 107	Storage Tank at Temperature Test Facility (TTF)	Also identified as WSMR-35
SWMU 108	Vapor Extraction Well at TTF	Also identified as WSMR-41
SWMU 109	Drum Storage Area (Splash Pan) at TTF	
SWMU 110	Methylene Chloride Catchment System at TTF	
SWMU 111	Methylene Chloride Separation System at TTF	
SWMU 112	Methylene Chloride Separation System at TTF	
SWMU 113	Salt Water Evaporation Tanks at TTF	
SWMU 119	Stallion Range Landfill	Also identified as WSMR-70

SWMU 120	Former Stallion Center Landfill	Also identified as WSMR-70
SWMU 121	Stallion Asphalt Tank	Also identified as WSMR-67
SWMU 122	Stallion Asphalt Tank	Also identified as WSMR-67
SWMU 123	Stallion Asphalt Tank	Also identified as WSMR-67
SWMU 124	Waste Oil Storage Tank @ Stallion	
SWMU 127	Autoclave at McAfee Clinic	
SWMU 128	Silver Recovery System Tailing Tank	
SWMU 129	Cyanide Treatment Unit at Building 1512	
SWMU 130	Former Spent Developer Storage Tank / Acetic Acid Spill Containment Tank	
SWMU 131	Former Spent Developer Storage Tank / Acetic Acid Spill Containment Tank	
SWMU 132	Orogrande Waste Stabilization Pond	Ft. Bliss operated SWMU, Also identified as WSMR-76
SWMU 133	NOMTS Machine Shop Accumulation Area	
SWMU 134	NOMTS Outdoor Accumulation Area	
SWMU 135	Paint Shop Accumulation Area	
SWMU 136	Paint Shop Spray Booth	
SWMU 138	Waste Accumulation Area @ RATSCAT	
SWMU 140	LC-37 Paint Dump	Also identified as WSMR-84
SWMU 141	Equipment Storage Area	Also identified as WSMR-83
SWMU 143	HELSTF Storage Yard Chromium Spill Site	Also identified as WSMR-54
SWMU 144	HELSTF Laser System Test Center Wastewater Discharge Pond	Also identified as WSMR-47
SWMU 145	HELSTF Test Cell Lagoons	Also identified as WSMR-53
SWMU 146	HELSTF STP Dry Pond	Also identified as WSMR-45
SWMU 147	Decontamination Pad & Underground Holding Tank	Also identified as WSMR-78

SWMU 148	Former MAR Waste Stabilization Pond	Also identified as WSMR-83
SWMU 149	Maintenance Building Septic System	Also identified as WSMR-46
SWMU 150	MAR Dump Site	
SWMU 151	Trailer Area Septic System	Also identified as WSMR-46
SWMU 152	Property and Supply Building Septic System	Also identified as WSMR-46
SWMU 153	Vandal Burial Site	Also identified as WSMR-58
SWMU 154	HELSTF Systematic Diesel Spill Site	Also identified as WSMR-55
SWMU 156	Former Golf Course Pesticide Storage Shed @ Building T-1348	Also identified as WSMR-57
SWMU 157	Former Oscura Range Center Landfill-A	Also identified as WSMR-05
SWMU 159	Former Oscura Range Center Landfill-C	Also identified as WSMR-05
SWMU 163	Abandoned Disposal Trench @ New Commissary	Also identified as WSMR-72
SWMU 164	AMRAD Facility	
SWMU 165	LC-34 Contaminated Soils @ Buildings 23104 & 23106	
SWMU 166	Denver	
SWMU 167	Malpais	
SWMU 168	Lance Missile Impact @ White Sands National Monument	
SWMU 197	HELSTF Technical Support Area	
SWMU 198	LC-38 Diesel Fuel Oil Release	
SWMU 199	Hardin Ranch First Site	
SWMU 200	Hardin Ranch Second Site	
SWMU 201	RAM (Facility 6002) Site	
SWMU 202	Dead Horse Instrumentation Site	
SWMU 203	Oscura (Facility 31795) Communication Site	

SWMU 204	Harriet (Facility 34600) Instrumentation Site	
SWMU 205	SE-70 (Facility S-31427) Instrumentation Site	
SWMU 206	Atom (Facility S-33151) First Site	
SWMU 207	Atom (Facility S-33151) Second Site	
SWMU 208	SE-50 (Facility 29055) Instrumentation Site	
SWMU 209	EC-50 (Facility 29085) Instrumentation Site	
SWMU 210	Minnow (Facility S-31132) Instrumentation Site	
SWMU 211	Cowan Instrumentation Site	
SWMU 212	NM-70 (Facility S-31620) Instrumentation Site	
SWMU 213	Gran Jean (Facility S-34050) Instrumentation Site	
SWMU 214	NE-50 (Facility 29090) Instrumentation Site	
SWMU 215	Missile Graveyard	
SWMU 216	UST at Timing Station, Building 20710, LC-32 (Uncle Site)	
SWMU 217	AAFES Gas Station at Building 270	
SWMU 218	LC-38-Building 23626	1,764-gallon steel UST
SWMU 219	Main Post POL	AST Release Site
AOC A	Sink & Drain System @ Building 1621	
AOC B	Battery Accumulation Area @ North Oscura	
AOC D	Drum Storage Area @ STP	
AOC E	Pesticide Storage Area	
AOC G	Brine (MeCl) Storage Tank	
AOC H, I, J, K, & L	Methylene Chloride Tanks (five tanks)	
AOC P	Chemistry Laboratory Drains at Building 1530	

AOC S	Septic Tanks with Leach Fields	Also identified as WSMR-69
AOC V	HELSTF Pressure Recovery System	
AOC W	Davies Tank	
AOC X	Stallion Range Desalinization/Sewage Lagoons	
AOC Y	Stormwater Drainage Ditches	From RFA* section 6.21, page 6-10
AOC Z	Abandoned Underground Storage Tank	From RFA* section 6.22, page 6-10
AOC AA	Alamogordo Bombing Range	Also identified as WSMR-003-R-01; Active Range, Deferred
AOC AB	Sewage Lagoon	Also identified as WSMR-004-R-01
AOC AC	Condron Field	Also identified as WSMR-005-R-01
AOC AD	Main Cantonment Area	Also identified as WSMR-006-R-01
AOC AE	Red Rio Bombing Range	Active Range, Deferred
AOC AF	Oscura Bombing Range	Active Range, Deferred
AOC AG	Main Post Skeet Range	Active Range, Deferred

* WSMR RCRA Facility Assessment PR/VSI Report, A.T. Kearney, Inc, August 1988

TABLE 4-2
SWMUs & AOCs
CORRECTIVE ACTION COMPLETE WITH CONTROLS

UNIT ID NUMBER	UNIT DESCRIPTION	COMMENTS

TABLE 4-3
SWMUs & AOCs

CORRECTIVE ACTION COMPLETE WITHOUT CONTROLS

UNIT ID NUMBER	UNIT DESCRIPTION	COMMENTS
SWMU 116	Rhodes Canyon Subgrade Asphalt Tanks	SWMUs 116, 117, & 118 were combined into SWMU 116, Also identified as WSMR-75
SWMU 125	Veterinary Clinic Incinerator	Also identified as WSMR-77
SWMU 126	McAfee Clinic Incinerator	
SWMU 137	Paint Shop Sump	Also identified as WSMR-56
SWMU 162	Stallion Range Center Former Firefighter Training Area	Also identified as WSMR-66
SWMU 219	Hawk Facility, Building 204548 at LC-38	3,000-gallon UST
SWMU 220	Rhodes Canyon Range Center POL Station, Building 30725-1 & 2)	
SWMU 139		No corresponding SWMU unit assigned to this number
AOC C	Areas Where heavy pesticides and/or herbicides were used	
AOC F	Methane Vent (Flare) at STP	

AOC M	Exploded / Unexploded Low Level Radioactive Ordnance	
AOC N	Process Spills at HELSTF	
AOC O	Miscellaneous Areas ID'd by Aerial Photos	
AOC Q	HELSTF Lab Drains	
AOC T	Collection Lines to the STP	
AOC U	Miscellaneous Spills	

**TABLE 4-4
HAZARDOUS WASTE MANAGEMENT UNITS**

UNIT ID NUMBER	UNIT DESCRIPTION	COMMENTS
SWMU 38	HELSTF Landfill	Also identified as WSMR-52, Closure required
SWMU 39	HELSTF Landfill	Also identified as WSMR-52, Closure required
SWMU 41	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 42	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 43	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 44	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 45	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 46	Oscura Munitions Landfill	Also identified as WSMR-03, Closure required
SWMU 50	Red Rio North Landfill	Also identified as WSMR-02, SWMUs 50-54 were combined into SWMU 50, Closure required
SWMU 55	Open Burn Pit at the OB/OD	Post Closure Care Plan Required
SWMU 56	Open Detonation Pit at the OB/OD	Post Closure Care Plan Required
SWMU 56A	Open Detonation Pit at the OB/OD	Post Closure Care Plan Required
SWMU 57	Tula Peak Burial Sites	Also identified as WSMR-23,

		SWMUs 57-60 were combined into SWMU 57, Closure required
SWMU 61	Tula Peak Incinerator	Also identified as WSMR-24, Closure required
SWMU 65	Former Main Post Landfill #3 at Scrap Yard	Also identified as WSMR-61, Closure required
SWMU 82	Former STP Ditches	SWMUs 82 and 83 were combined into SWMU 82. Also identified as WSMR-62, Closure required
SWMU 88	Container Storage Area	Operating
SWMU 89	Former Acid Neutralization Unit at the Hazardous Waste Storage Facility	Also identified as WSMR-27, Closure required
SWMU 90	Evaporation Tank at Building 22895	Also identified as WSMR-37, Clean closure complete
SWMU 91	Hazardous Waste Landfill	Clean closure complete
SWMU 92A	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 92B	Liquid Propellant Evaporation – Neutralization Pit 2	Closure required, Also identified as WSMR-11
SWMU 93	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 94	Liquid Propellant Evaporation – Neutralization Pit 4	Closure required, Also identified as WSMR-11
SWMU 95	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 96	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 97	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11

SWMU 98	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 99	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 100	Liquid Propellant Evaporation Neutralization Pits	Closure required, Also identified as WSMR-11
SWMU 101	Acid Neutralization Pit	Closure required
SWMU 104	Temperature Test Facility	Also identified as WSMR-34, Clean closure complete
SWMU 105	New Evaporation Tank at TTF	Closure complete
SWMU 106	Discharge Pipe at TTF	Closure required
SWMU 114	Rhodes Canyon Landfill	Also identified as WSMR-14, Closure complete, Post-closure Plan is included in the approved CMI Report
SWMU 115	Rhodes Canyon Landfill	Also identified as WSMR-14, Closure complete. Post-closure care plan is included in the approved CMI Report
SWMU 142	HELSTF Cleaning Facility Sump	Also identified as WSMR-48, Closure required
SWMU 155	Red Rio South Landfill	Closure required
SWMU 158	Former Oscura Range Landfill	Also identified as WSMR-05, Clean closure complete
SWMU 160	Nuclear Effects Reactor Facility Pond #1	Also identified as WSMR-09, Clean closure complete
SWMU 161	Nuclear Effects Reactor Facility Pond #2	Also identified as WSMR-09, Clean closure complete