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BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 15, 2018

Jeffrey Harrell
Manager
Sandia Site Office/NNSA
U.S. Department of Energy
P.O. Box 5400, MS 0184
Albuquerque, NM 87185-5400

Jaime L. Moya
Director
National Technology & Engineering Solutions of
Sandia, LLC
P.O. Box 5800, MS-0725
Albuquerque, NM 87185

**RE: APPROVAL FOR CORRECTIVE ACTION STATUS FOR
SIX SOLID WASTE MANAGEMENT UNITS, MAY 2016
SANDIA NATIONAL LABORATORIES
EPA ID# NM5890110518
HWB-SNL-16-009**

Dear Messrs. Harrell and Moya:

A Class 3 Permit Modification Request ("PMR") was submitted to the New Mexico Environment Department ("NMED") on May 16, 2016 to modify the U.S. Department of Energy/National Technology and Engineering Solutions of Sandia, LLC (collectively, the "Permittees") Hazardous Waste Facility Resource Conservation and Recovery Act ("RCRA") Permit No. NM5890110518 pursuant to 20.4.1.900 NMAC (incorporating 40 CFR §270.42(c)). The proposed PMR would establish Corrective Action Complete ("CAC") status for six Solid Waste Management Units ("SWMUs"), and modify Tables K-1, K-3, K-4 and M-1 of Permit Attachments K and M to move these SWMUs from the Permit's Table K-1, (*Summary of SWMUs/AOCs Requiring Corrective Action*) to Table K-3 (*Summary of SWMUs/AOCs With Corrective Action Complete with Controls*) or Table K-4 (*Summary of SWMUs/AOCs With Corrective Action Complete without Controls*). Table M-1 (*Summary of Institutional Controls for SWMUs and AOCs Requiring Controls*) modifications would add three SWMUs to the list of sites requiring long term monitoring. Two of those sites (58FF and 58B/8Y) were previously named Features and lie entirely within SWMUs 58 and 8.

Messrs. Harrel and Moya
June 15, 2018
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On November 17, 2017, NMED issued a public notice requesting public comment regarding the proposed PMR. The public comment period for this action ended January 17, 2018. Comments on the proposed Permit modification were received from the Permittee and one citizen. NMED's response to these comments is provided with this letter.

Under the authority of the New Mexico Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to -14, and the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC, NMED hereby approves the Permittees' PMR and grants CAC Without Controls status for three SWMUs as indicated on the attached Table K-4, and CAC with Controls status for three SWMUs as indicated on the attached Table K-3.

Attached is the comment response matrix, as well as the final versions of Tables K-1, K-3, K-4 and M-1 of the Permit's Attachment K and M.

This decision to grant CAC with and without Controls status to these SWMUs shall become effective thirty (30) days after the date of this letter. If you have any questions regarding this matter, please contact Mr. John Kieling of my staff at (505) 476-6035.

Sincerely,



J.C. Borrego
Deputy Secretary
New Mexico Environment Department

Enclosure: Tables K-1, K-3, K-4, M-1 and Comments Response Matrix

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
C. Amindyas, NMED HWB
B. Salem, NMED HWB
L. King, EPA, 6PD-N
C. Adkins, SNL, MS
D. Rast, NNSA/DOE, MS 0184

File: SNL 2018 and Reading File
SNL-16-009

TABLE K-1 Solid Waste Management Units and Areas of Concern Requiring Corrective Action Under the Consent Order		
SWMU/AOC #	Name or Description	Comments
<i>OU-1306</i>	<i>TAs-III & V</i>	
83	Long Sled Track	
84	Gun Facilities	
240	Short Sled Track	
	<i>Miscellaneous Sites</i>	
	Tijeras Ground-Water (TAG) Investigation	
	TA-V Ground-Water Investigation	
	Burn Site Ground-Water Investigation	

TABLE K-3 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete with Controls		
SWMU/AOC#	Name or Description	Date of CAC Approval
<i>OU-1289</i>	<i>Mixed Waste Landfill</i>	
76	Mixed Waste Landfill (TA-III)	
<i>OU 1295</i>	<i>Septic Tanks and Drainfields</i>	
137	Bldg. 6540/6542 Septic System (TA-III)	02/08
154	Bldg. 9960 Septic System and Seepage Pits (Coyote Test Field)	05/18
<i>OU 1302</i>	<i>TA-I</i>	
96	Storm System Drain	06/06
98	Bldg. 863 (TCA, Photochemical Releases: Silver Catch Boxes)	11/05
187	Septic Tank Piping for POTW	06/06
190	Steam Plant Tank Farm	06/06
226	Old Acid Waste Line	06/06
<i>OU 1303</i>	<i>TA-II</i>	
1	Radioactive Waste Landfill	02/08
2	Classified Waste Landfill (TA-II)	06/06
3	Chemical Disposal Pit	02/08
135	Bldg. 906 Drain System (TA-II)	06/06
<i>OU 1306</i>	<i>TAs-3&5</i>	
105	Mercury Spill (Bldg. 6536)	12/14
196	Bldg. 6597 Cistern (TA-V)	12/14
<i>OU 1307</i>	<i>Liquid Waste Disposal System</i>	
4	LWDS Surface Impoundments	12/14
<i>OU 1309</i>	<i>Tijeras Arroyo</i>	
45	Liquid Discharge (behind TA-IV)	02/08
46	Old Acid Waste Line Outfall	12/14
229	Storm Drain System Outfall (for TA-II)	06/06
<i>OU 1332</i>	<i>Foothills Test Area</i>	
58FF	Fire Bricks Feature (Coyote Canyon Blast Area)	05/18
58B/8Y	Debris Pile and Pit Area (Coyote Canyon Blast Area)	05/18
87	Bldg. 9990 Firing Site	06/06
<i>OU 1335</i>	<i>Southwest Test Area</i>	

TABLE K-3 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete with Controls		
SWMU/AOC#	Name or Description	Date of CAC Approval
91	Lead Firing Site (Thunder Range)	12/14
	<i>Miscellaneous Sites</i>	
1029	Bldg. 6584 North Septic System (TA-III)	06/06
1081	Bldg. 6650 Septic System (TA-III)	02/08
1090	Bldg. 6721 Septic System (TA-III)	12/14

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
<i>OU 1295</i>	<i>Septic Tanks and Drainfields</i>		
49	Bldg. 9820 Drains (Lurance Canyon)	12/14	
101	Bldg. 9926/9926A Septic System and Seepage Pit (Coyote Test Field)	12/14	
116	Bldg. 9990 Septic System (Coyote Test Field)	12/14	
138	Bldg. 6630 Septic System (TA-III)	12/14	
139	Bldg. 9964 Septic System	12/95	
140	Bldg. 9965 Septic System and Drywell (Thunder Range)	12/14	
141	Bldg. 9967 Septic System	11/01	
142	Bldg. 9970 Septic System	09/00	
143	Bldg. 9972 Septic System	09/00	
144	Bldg. 9980 Septic System	09/00	
145	Bldgs. 9981/9982 Septic System	09/00	
146	Bldg. 9920 Drain System (Coyote Test Field)	02/08	
147	Bldg. 9925 Septic Systems (Coyote Test Field)	12/14	
148	Bldg. 9927 Septic System (Coyote Test Field)	02/08	
149	Bldg. 9930 Septic System (Coyote Test Field)	05/18	
150	Bldgs. 9939/ 9939A Septic System and Drainfield (Coyote Test Field)	12/14	
151	Bldg. 9940 Septic System	11/01	
152	Bldg. 9950 Septic System (Coyote Test Field)	02/08	
153	Bldg. 9956 Septic Systems (Coyote Test Field)	02/08	
160	Bldg. 9832 Septic System	11/01	
161	Bldg. 6636 Septic System (TA-III)	12/14	
<i>OU 1300</i>			
211	Bldg. 840, Former UST 840-1 (TA-I)	09/00	
<i>OU 1302</i>	<i>TA-I</i>		
25	Burial Site (South of TA-I)	12/95	

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
30	PCB Spill (Reclamation Yard)	04/05	
32	Steam Plant Oil Spill	12/95	
33	Motor Pool Oil Spill	04/05	
41	Bldg. 838 Mercury Spill	12/95	
42	Acid Spill, Bldg. 879 Water Treatment Facility	09/00	
73	Hazardous Waste Repackaging and Storage (Bldg. 895)	12/95	
104	PCB Spill	12/95	
186	TCE Dumping south of Bldg. 859	09/00	
192	TA-I Waste Oil Tank	07/00	
276	Former Bldg. 829X Silver Recovery Sump (TA-I)	02/08	
OU 1303	TA-II		
43	Radioactive Material Storage Yard (TA-2)	09/00	
44	Decontamination Site and Uranium Calibration Pits (UCPs)	07/00	
48	Bldg. 904 Septic System and HE Drain System (TA-II)	06/06	
113	Area II Firing Sites	11/01	
114	Explosive Burn Pit	04/05	
136	Bldg. 907 Septic System and HE Drain System (TA-II)	06/06	
159	Bldg. 935 Septic System and Drywell (TA-II)	06/06	
165	Bldg. 901 Septic System (TA-II)	06/06	
166	Bldg. 919 Septic System (TA-II)	06/06	
167	Bldg. 940 Septic System and Seepage Pit (TA-II)	06/06	
OU 1306	TAs-3&5		
18	Concrete Pad	04/05	
26	Burial Site (Western Part of TA-3)	04/05	
31	Electrical Transformer Oil Spill	11/01	
34	Centrifuge Oil Spill	11/01	
35	Vibration Facility Oil Spill (TA-3)	04/05	
36	HERMES Oil Spill	11/01	
37	PROTO Oil Spill	11/01	
51	Bldg. 6924 Pad, Tank, and Pit	11/01	
78	Gas Cylinder Disposal Pit	02/08	
100	Bldg. 6620 Drain/Sump	11/01	
102	Radioactive Disposal Area	11/01	
107	Explosive Test Area (South-East TA-3)	04/05	Also site of CAMU
111	Bldg. 6715 Sump/Drain	11/01	

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
188	Bldg. 6597 Above Ground Containment Spill Tank	12/95	
241	Storage Yard	04/05	
275	Seepage Pits, TA-V	07/00	
OU 1307	Liquid Waste Disposal System		
5	LWDS Drainfield (TA-V)	12/14	
52	LWDS Holding Tank	12/14	
OU 1309	Tijeras Arroyo		
7	Gas Cylinder Disposal (Arroyo del Coyote)	09/00	Transferred to KAFB in 2000, listed on KAFB Permit
16	Open Dumps (Arroyo del Coyote)	09/00	
23	Disposal Trenches (near Tijeras Arroyo)	07/00	
40	Oil Spill (6000 Igloo Area)	11/97	
50	Old Centrifuge Site (Tijeras Arroyo)	09/00	
77	Oil Surface Impoundment	07/00	
227	Bunker 904 Outfall	06/06	
228A	Centrifuge Dump Site	09/00	
228B	Centrifuge Dump Site	11/01	
230	Storm Drain System Outfall (for TA-4)	04/05	
231	Storm Drain System Outfall (for TA-4)	04/05	
232	Storm Drain System Outfall	04/05	
233	Storm Drain System Outfall	07/12	
234	Storm Drain System Outfall	07/12	
235	Storm Drain System Outfall	09/00	
OU 1332	Foothills Test Area		
8	Open Dump (Coyote Canyon Blast Area)	05/18	
15	Trash Pits (Frustration Site)	12/97	
19	TRUPAK Boneyard Storage Area (NW End of Old Aerial Cable)	07/00	
27	Animal Disposal Pit (Coyote Springs)	07/00	
28-1	Mine Shafts	12/97	
28-2	Mine Shafts	12/14	
28-3	Mine Shafts	12/97	
28-4	Mine Shafts	12/97	
28-5	Mine Shafts	12/97	
28-6	Mine Shafts	12/97	
28-7	Mine Shafts	12/97	
28-8	Mine Shafts	12/97	
28-9	Mine Shafts	12/97	
28-10	Mine Shafts	11/01	
58	Coyote Canyon Blast Area	05/18	
66	Boxcar Site	04/05	
67	Frustration Site	11/01	
82	Old Aerial Cable Site	11/01	
277	New Firing Site East of Optical Range	11/01	
OU 1333	Canyons Test Area		

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
10	Burial Mounds (Bunker Area North of Pendulum Site)	07/00	
12A	Open Arroyo Channel	09/00	
12B	Buried Debris in Graded Area	07/00	
13	LCBS Oil Surface Impoundment (Lurance Canyon Burn Site)	07/00	
59	Pendulum Site	07/00	
60	Bunker Area	11/01	
63-A	Balloon Test Area: Plutonium Dispersal Study Program (PDSP) Site	09/00	
63-B	Balloon/Helicopter Site	07/00	
64	Gun Site (Madera Canyon)	09/00	
65-A	Lurance Canyon Explosive Test Site: Small Debris Mound	09/00	
65-B	Lurance Canyon Explosive Test Site: Primary Detonation Area	09/00	
65-C	Lurance Canyon Explosive Test Site: Secondary Detonation Area	09/00	
65-D	Lurance Canyon Explosive Test Site: Near Field Dispersion Area	09/00	
65-E	Far Field Dispersion Area	07/00	
72	Operation Beaver Site	07/00	
81-A	Catcher Box/Sled Track	11/01	
81-B	Impact Pad	11/01	
81-C	New Aerial Cable Site: Former Burial Location	09/00	
81-D	Northern Cable Area	11/01	
81-E	Gun Impact Area	11/01	
81-F	Scrap Yard	11/01	
92	Pressure Vessel Test Site (Coyote Canyon Blast Area)	12/97	
93	Madera Canyon Rocket Launcher Pads A, B & C	07/00	
94-A	Aboveground Tanks, Lurance Canyon Burn Site	07/00	
94-B	Debris/Soil Mound Area	04/05	
94-C	Bomb Burner Area and Discharge Line	11/01	
94-D	Lurance Canyon Burn Site: Bomb Burner Discharge Pit	09/00	
94-E	Lurance Canyon Burn Site: Small Surface Impoundment	09/00	
94-F	LAARC Discharge Pit	04/05	
94-G	Scrap Yard, Lurance Canyon Burn Site	11/01	
94-H	Fuel Spill at Open Pool Test Area, Lurance Canyon Burn Site	04/05	
225	AEC Storage Facility/Kirtland AFB	12/05/96	Transferred to KAFB in 1996, listed on KAFB Permit
OU 1334	Central Coyote Test Area		

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
9	Burial/Open Dump (Schoolhouse Mesa)	04/05	
11	Explosive Burial Mounds	09/00	
20	School House Mesa Burn Site	12/95	
21	Metal Scrap (Coyote Springs)	09/00	
22	Storage/Burn (West of DEER)	07/00	
47	Unmanned Seismic Observatory	12/95	
57-A	Workman Site-Firing Site	09/00	
57-B	Workman Site-Target Area	09/00	
61-A	Blast Area	07/00	
61-B	Cratering Area	12/05/96	Transferred to KAFB in 1996, listed on KAFB Permit
61-C	Schoolhouse Mesa Test Site -- Schoolhouse Bldg.	09/00	
62	Greystone Manor Site (Coyote Springs)	12/95	
68	Old Burn Site	05/18	
69	Old Borrow Pit	12/95	
70	Explosives Test Pit (Water Towers)	09/00	
71	Moonlight Shot Area	07/00	
88-A	Firing Site: Ranch House	12/95	
88-B	Firing Site: Instrumentation Pole	09/00	
OU 1335	Southwest Test Area		
6	Gas Cylinder Disposal Pit (Bldg. 9966)	11/01	
6-A	Gas Cylinder Disposal Pit	11/01	
14	Burial Site (Bldg. 9920)	07/00	
17	Scrap Yards/Open Dump (Thunder Range)	07/00	
39	Oil Spill - Solar Facility	11/97	
38	Oil Spills (Bldg. 9920)	07/00	
53	Bldg. 9923 Storage Igloo	11/97	
54	Pickax Site (Thunder Range)	07/00	
55	Red Towers Site (Thunder Range)	09/00	
56	Old Thunderwells (Thunder Range)	07/00	
85	Burial Site (Bldg. 9920)	07/00	
86	Firing Site (Bldg. 9927)	11/01	
89	Shock Tube Site (Thunder Range)	07/00	
90	Beryllium Firing Site (Thunder Range)	09/00	
103	Scrap Yard (Bldg. 9939)	07/00	
108	Firing Site (Bldg. 9940)	07/00	
109	Firing Site (Bldg. 9950)	07/00	
112	Explosive Contaminated Sump (Bldg. 9956)	09/00	
115	Firing Site (Bldg. 9930)	09/00	
117	Trenches (Bldg. 9939)	11/01	
191	EQUUS Red	11/01	
193	Sabotage Test Area	07/00	
194	General Purpose Heat Source Test Area	11/97	

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
<i>Misc. Sites</i>			
	Building 828, TA-I	04/05	
	TNT Site	04/05	
195	Experimental Test Pit	11/05	
1001	Bldg. 898 Septic System (TA-I)	11/05	
1002	Bldg. 8895/MO 100 Septic System (TA-I)		No Investigation Needed, Active System
1003	Former Bldg. 915/922 Septic System (TA-II)	11/05	
1004	Bldg. 6969 Septic System (Robotic Vehicle Range)	02/08	
1005	Bldg. 6020 Septic System (6000 Igloo Area)		No Investigation Needed, Active System
1006	Bldg. 6741 Septic System (TA-III)	06/06	
1007	Bldg. 6530 Septic System (TA-III)	06/06	
1008	Bldg. 6750 Septic System (TA-III)	11/05	
1009	Bldg. 6620 Internal Sump (TA-III)	11/05	
1010	Bldg. 6530 Septic System (TA-III)	06/06	
1013	Bldg. T-52 and Former Bldg. 6500 South Septic System (TA-V)		Does Not Exist
1014	Former T-12, T-42, and T-43 Septic System (TA-V)	11/05	
1015	Bldg. 6530 Septic System (TA-III)	06/06	
1016	Bldg. 914 Seepage Pit (TA-II)		No Investigation Needed
1017	Bldg. 897X Septic System (TA-I)		Does Not Exist
1020	MO-146, MO-235, and T-40 Septic System (TA-III)	06/06	
1021	Bldg. 859 Drywell (TA-I)		No Investigation Needed
1022	Bldg. 6505A Seepage Pit (TA-III)		No Investigation Needed
1023	Bldg. 6505 Southwest Seepage Pit (TA-III)		No Investigation Needed
1024	MO 242-245 Septic System (TA-III)	06/06	
1025	Bldg. 6501 East Septic System (TA-III)	11/05	
1026	Bldg. 6501 West Septic System (TA-III)	11/05	
1027	Bldg. 6530 Septic System (TA-III)	11/05	
1028	Bldg. 6560 Septic System (TA-III)	06/06	
1030	Bldg. 6587 Septic System (TA-III)	11/05	
1031	Former Bldgs. 6589 and 6600 Septic System (TA-III)	02/08	
1032	Bldg. 6610 Septic System (TA-III)	11/05	
1033	Bldg. 6631 Septic System (TA-III)	11/05	
1034	Bldg. 6710 Septic System (TA-III)	02/08	
1035	Bldg. 6715 Septic System (TA-III)	02/08	
1036	Bldg. 6922 Septic System (TA-III)	02/08	
1037	MO 14, MO 15 Septic System (TA-I)		No Investigation Needed, Active System

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
1038	MO 154 Drywell (TA-I)		No Investigation Needed
1039	MO 155 Drywell (TA-I)		No Investigation Needed
1040	MO 156 Drywell (TA-I)		No Investigation Needed
1041	T-28 Drywell (TA-I)		No Investigation Needed
1042	T-29 Drywell (TA-I)		No Investigation Needed
1043	T-30 Drywells (TA-I)		No Investigation Needed
1044	T-31 Drywell (TA-I)		No Investigation Needed
1045	T-32-2 Drywell (TA-I)		No Investigation Needed
1046	T-44 Drywell (TA-I)		No Investigation Needed
1047	T-45 Drywell (TA-I)		No Investigation Needed
1048	T-46 Drywell (TA-I)		No Investigation Needed
1049	T-47 Drywells (TA-I)		No Investigation Needed
1050	T-48 Drywells (TA-I)		No Investigation Needed
1051	Bldg. 803 Outfall (TA-I)		No Investigation Needed
1052	Bldg. 803 Seepage Pit (TA-I)	02/08	
1053	Bldg. 823 Outfall (TA-I)		No Investigation Needed
1054	Bldg. 823 Drywells (TA-I)		No Investigation Needed
1055	Bldg. 829 Drywell (TA-I)		No Investigation Needed
1056	Bldg. 838 Drywell (TA-I)		No Investigation Needed
1057	Bldg. 839 Drywell (TA-I)		No Investigation Needed
1058	Bldg. 847 Drywell (TA-I)		No Investigation Needed
1059	Bldg. 850 Drywell (TA-I)		No Investigation Needed
1060	Bldg. 857A Drywell (TA-I)		No Investigation Needed
1061	Bldg. 867 Drywells (TA-I)		No Investigation Needed
1062	Bldg. 869 Drywell (TA-I)		No Investigation Needed
1063	Bldg. 882 Drywell (TA-I)		No Investigation Needed
1064	Bldg. 890 Drywells (TA-I)		No Investigation Needed
1065	Bldg. 893 Drywells (TA-I)		No Investigation Needed
1066	Bldg. 894 Drywells (TA-I)		No Investigation Needed
1067	Bldg. 959 Drywell (TA-I)		No Investigation Needed
1068	Bldg. 904E Drywell (TA-II)		No Investigation Needed
1069	Bldgs. 913/913A Septic System (TA-II)		Does Not Exist?
1070	Bldg. 962 Drywells (TA-IV)		No Investigation Needed
1071	Bldg. 986 Drywell (TA-IV)		No Investigation Needed
1072	Bldg. T-52 and Former Bldg. 6500 Septic System (TA-V)	11/05	
1073	Bldg. 6580 Seepage Pit (TA-V)	11/05	
1074	Bldgs. 6581/6582 MO 32/57 Septic System (TA-V)		No Investigation Needed
1075	Bldg. 6582 Septic System (TA-V)		Does Not Exist
1076	Bldg. 6585 Septic System (TA-V)		Does Not Exist
1077	Bldg. 6920 Septic System (TA-III)	11/05	
1078	Bldg. 6640 Septic System (TA-III)	02/08	
1079	Bldg. 6643 Septic System (TA-III)	02/08	
1080	Bldg. 6644 Septic System (TA-III)	02/08	
1082	Bldg. 6620 Septic System (TA-III)	11/05	
1083	Bldg. 6570 Septic System (TA-III)	06/06	
1084	Bldg. 6505 Septic System (TA-III)	02/08	

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
1085	Bldg. 6520 Septic System (TA-III)		Does Not Exist
1086	Bldg. 6526 Septic System (TA-III)	06/06	
1087	Bldg. 6743 Seepage Pit (TA-III)	02/08	
1088	Bldg. 6736 Septic System (TA-III)		Does Not Exist
1089	Bldg. 6734 Seepage Pit (TA-III)	11/05	
1091	Bldg. 6720 Septic System (TA-III)	11/05	
1092	MO 228-230 Septic System (TA-III)	02/08	
1093	Bldg. 6584 West Septic System (TA-III)	11/05	
1094	Live Fire Range East Septic System (Lurance Canyon)	12/14	
1095	Bldg. 9938 Seepage Pit (Coyote Test Field)	12/14	
1096	Bldg. 6583 Septic System (TA-III)	11/05	
1097	SFER/127/128/130 Septic System (Lurance Canyon) (DOE Facility)		No Investigation Needed
1098	TA-V Plenum Rooms Drywell (TA-V)	02/08	
1099	Bldg. 634 Outfall (TA-I)		No Investigation Needed
1100	Bldg. 814 Outfall (TA-I)		No Investigation Needed
1101	Bldg. 885 Septic System (TA-I)	12/14	
1102	Former Bldg. 889 Septic System (TA-I)	02/08	
1103	Bldg. 6030 Septic System (6000 Igloo Area)		No Investigation Needed, Active System
1104	Bldg. 6595 Seepage Pit (TA-V)	02/08	
1105	Bldg. 6596 Drywell (TA-V)	11/05	
1106	Bldg. 6505 Interior Sump (TA-III)		No Investigation Needed
1107	Bldg. 6526 Drywell (TA-III)		No Investigation Needed
1108	Bldg. 6531 Seepage Pits (TA-III)	06/06	
1109	Bldg. 6530 Seepage Pit (TA-III)		No Investigation Needed
1110	Bldg. 6536 Drain System (TA-III)	06/06	
1111	Bldg. 6720 Seepage Pit (TA-III)	11/05	Site referred to as Bldg. 6720 Drywell (TA-III) in Consent Order
1112	Bldg. 6590 Reactor Sump Drywell (TA-V)	11/05	
1113	Building 6597 Drywell (TA-V)	02/08	
1114	Bldg. 9978 Drywell (Coyote Test Field)	12/14	
1115	Former Offices Septic System (Solar Tower Complex)	07/12	
1116	Bldg. 9981A Seepage Pit (Solar Tower Complex)	12/14	
1117	Bldg. 9982 Drywell (Solar Tower Complex)	12/14	
1118	Bldg. 9966 Drywell (Thunder Range)		No Investigation Needed
1119	Live Fire Range West Septic System (Lurance Canyon) (DOE Facility)		No Investigation Needed, Active System
1120	Bldg. 6595 Seepage Pit (TA-V)	02/08	
LTES-1	Cable Debris Site	12/14	

TABLE K-4 Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete without Controls			
SWMU/AOC#	Name or Description	Date of CAC Approval	Comments
502	Building 9938 Surface Discharge Site	05/18	

Table M-1 Summary of Institutional Controls for Solid Waste Management Units and Areas of Concern Requiring Controls							
SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
<i>OU 1289 Mixed Waste Landfill</i>							
76	Mixed Waste Landfill (TA-III)		Industrial		Annual	Controls and other requirements specified in Mixed Waste Landfill Long-Term Monitoring and Maintenance Plan, dated March 2012 (and as the plan may be updated)	3
<i>OU 1295 Septic Tanks and Drainfields</i>							
137	Bldg. 6540/6542 Septic System (TA-III)	Maintained and tracked	Industrial	4 signs on SWMU perimeter, one each at selected corners of the SWMU	Annual		3
154	Bldg. 9960 Septic System and Seepage Pits (Coyote Test Field)	Maintained and tracked	Industrial	4 signs at 2 areas that comprise the SWMU; 2 signs near selected corners of each area	Annual		4

Table M-1
Summary of Institutional Controls for Solid Waste Management Units
and Areas of Concern Requiring Controls

SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
<i>OU 1302 TA-I</i>							
96	Storm System Drain	Maintained and tracked	Industrial	Not feasible	None	SWMU consists of underground storm drains throughout TA-I. No signs, postings, or inspections are feasible due to SWMU features.	Not shown
98	Building 863 (TCA, Photochemical Releases: Silver Catch Boxes)	Maintained and tracked	Industrial	Not feasible	Annual	SWMU consists of subsurface area located under a building. No signs, postings, or inspections are feasible due to SWMU features.	1
187	Septic Tank Piping for POTW	Maintained and tracked	Industrial	Not feasible	None	SWMU consists of underground sewer lines throughout TA-I. No signs, postings, or inspections are feasible due to SWMU features.	Not shown
190	Steam Plant Tank Farm	Maintained and tracked	Industrial ^a	4 signs on SWMU perimeter, one in the approximate middle of each side of the SWMU	Annual		1

Table M-1 Summary of Institutional Controls for Solid Waste Management Units and Areas of Concern Requiring Controls							
SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
226	Old Acid Waste Line	Maintained and tracked	Industrial	Not feasible	None	SWMU consists of underground drain line throughout TA-I, II, and IV. No signs, postings, or inspections are feasible due to SWMU features.	1 and 2
OU 1303 TA-II							
1	Radioactive Waste Landfill	Maintained and tracked	Industrial	4 signs on SWMU perimeter, one each in selected corners of the SWMU	Annual		2
2	Classified Waste Landfill (TA-II)	Maintained and tracked	Industrial	5 signs on SWMU perimeter, one in the approximate middle of each side of the SWMU	Annual		2
3	Chemical Disposal Pit	Maintained and tracked	Industrial	Included with SWMU 1	Annual	Located adjacent to SWMU 1.	2
135	Building 906 Drain System	Maintained and tracked	Industrial	1 sign	Annual		2

Table M-1 Summary of Institutional Controls for Solid Waste Management Units and Areas of Concern Requiring Controls							
SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
<i>OU 1306 TA III and V</i>							
105	Mercury Spill (Bldg. 6536)	Maintained and tracked	Industrial	4 signs on SWMU perimeter, one in the approximate middle of each side of the SWMU	Annual		3
196	Bldg. 6597 Cistern (TA-V)	Maintained and tracked	Industrial	1 sign near the northeast corner of the SWMU	Annual		3
<i>OU 1307 Liquid Waste Disposal System</i>							
4	LWDS Surface Impoundments	Maintained and tracked	Industrial	4 signs on SWMU perimeter, one in the approximate middle of each side of the SWMU	Annual		3
<i>OU 1309 Tijeras Arroyo</i>							
45	Liquid Discharge (Behind TA- IV)	Maintained and tracked	Industrial	5 signs on SWMU perimeter, one in approximately each corner of the SWMU outside of the TA-IV fence	Annual	Western half of the SWMU is located within the TA-IV fenced boundary	2

Table M-1
Summary of Institutional Controls for Solid Waste Management Units
and Areas of Concern Requiring Controls

SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
46	Old Acid Waste Line Outfall	Maintained and tracked	Industrial	4 signs along the TA-IV fence line and 7 signs posted along the south and west perimeter of the SWMU	Annual		2
229	Storm Drain System Outfall (for TA-II)	Maintained and tracked	Industrial	1 sign at the top of the outfall	Annual		2
<i>OU 1332 Foothills Test Area</i>							
58FF	Fire Bricks Feature (Coyote Canyon Blast Area)	Maintained and tracked	Industrial	2 signs on perimeter	Annual	Feature within SWMU 58	5
58B/8Y	Debris Pile and Pit Area (Coyote Canyon Blast Area)	Maintained and tracked	Industrial	4 signs on perimeter	Annual	Feature within SWMU 58	5
87	Building 9990 Firing Site	Maintained and tracked	Industrial ^a	4 signs, one at the access road and three on the perimeter of the SWMU	Annual		5

Table M-1 Summary of Institutional Controls for Solid Waste Management Units and Areas of Concern Requiring Controls							
SWMU/ AOC Number	Site Name	Site Data	Land Use	Signs and Postings	SWMU/AOC Inspections	Additional Information	Figure
<i>OU 1335 Southwest Test Area</i>							
91	Lead Firing Site (Thunder Range)	Maintained and tracked	Industrial ^a	4 signs on SWMU perimeter, one in the approximate middle of each side of the SWMU	Annual		4
<i>Miscellaneous Sites</i>							
1029	Building 6584 North Septic System (TA-III)	Maintained and tracked	Industrial	3 signs on SWMU perimeter	Annual		3
1081	Building 6650 Septic System (TA-III)	Maintained and tracked	Industrial	3 signs on SWMU perimeter	Annual		3
1090	Bldg. 6721 Septic System (TA-III)	Maintained and tracked	Industrial	1 sign, approximately in the middle of the SWMU	Annual		3

**NEW MEXICO ENVIRONMENT DEPARTMENT'S RESPONSE TO PUBLIC COMMENT RECEIVED ON THE
NOVEMBER 2017 REQUEST FOR CORRECTIVE ACTION COMPLETE
FOR 6 SOLID WASTE MANAGEMENT UNITS AT
U. S. DEPARTMENT OF ENERGY/SANDIA CORPORATION'S
SANDIA NATIONAL LABORATORIES
JUNE 2018**

Public comment concerning the November 2017 Permit modification request for Corrective Action Complete (CAC) for 6 Solid Waste Management Units (SWMUs) / Areas of Concern (AOCs) at the U. S. Department of Energy / National Technology & Engineering Solutions of Sandia, LLC (NTESS) Sandia National Laboratories (SNL) Facility was accepted by the New Mexico Environment Department (NMED) from November 17, 2017 to January 16, 2018. The term CAC replaces the older term No Further Action (NFA). The U.S. Department of Energy and the Permittees are requesting the Class 3 Permit modification for CAC. SWMUs / AOCs granted CAC status will have their listings transferred from Table K-1 of Module IV of the SNL RCRA Permit to either Table K-3 or K-4. Table K-4 lists SWMUs and AOCs that do not require controls. K-3 lists SWMUs and AOCs that require land use controls.

The following table identifies persons that submitted comments, the organization they represent, and their comments referenced by number.

Commenter ID	Commenter / Organization	Comment #(s)
A	William P. Moats	1 – 8
B	U. S. Department of Energy/NTESS (Permittees)	9 – 12

NMED's response to public comment includes a description of any modifications that are to be made to the Permit because of public comment.

NO.	COMMENTS	NMED RESPONSE
1	<u>General Comment About SWMUs with Groundwater Monitoring Wells that are Septic Systems</u> Two of the SWMUs proposed for CAC are small septic systems (SWMUs 149, 154) that have been investigated under written procedures developed in negotiations between the DOE, SNL, and the NMED. Where groundwater monitoring wells were installed, the locations were negotiated in the field between DOE, SNL, and NMED staff. The locations of the wells are not immediately adjacent to the points of discharge, but instead are typically several hundred feet in a direction believed to be hydraulically downgradient based on surface topography and general knowledge of groundwater flow directions throughout the surrounding area. The reason the well locations were placed further away than is normally done is based on two major factors. First, groundwater flow velocities near and at the highlands on the east side of Kirtland Air Force Base are expected to be higher than those commonly observed in the Albuquerque Basin proper; and second, wastes have not likely been discharged into these septic systems for many years prior to the groundwater investigations. By placing the wells further away, it was believed that if groundwater contamination exists at some particular SWMU, there was a higher chance of discovering the contamination under the belief that the contaminant plume would have migrated some distance downgradient from its source by the time the groundwater investigation was initiated. If a contaminant is detected in the groundwater at a SWMU, then further investigation may or may not be warranted depending on the concentrations of the contaminant and how consistent the contaminant was detected. In the case of the six SWMUs currently being proposed for CAC status, low levels of contaminants were potentially found or were found in groundwater at SWMUs 149 and 154. However, as discussed below, no further investigations of the groundwater at these two SWMUs are necessary.	NMED agrees that the groundwater at SWMUs 149 and 154 is adequately characterized. Modification: None.

NO.	COMMENTS ID	COMMENT	NMED RESPONSE
2	A	General Comment about MDAs Exceeding Background Levels There are several statements in the Fact Sheet/Statement of Basis that discuss in some cases, that for radionuclides, the minimum detectable activity (MDA) achieved during the analysis of samples slightly exceeded the respective approved background level for a given radionuclide. SNL typically includes these radionuclides in radiological risk assessments setting the maximum detected level as the MDA when sample results were all reported as less than the MDA. This approach taken by SNL is conservative. Additionally, I agree that the MDAs are only slightly higher than the approved background levels, and at the levels of the MDAs, there is no significant risk to human health or the environment. My main point however is to make clear that I support the NMED's (and SNL/DOE's) position that these data are acceptable for their intended purpose (to support site characterization or clean up).	NMED agrees that at the level detected, the radionuclides pose is no significant risk to human health or the environment at those sites where samples contained levels minimally above background. Additional site characterization or cleanup is not necessary. Modification: None.

3	A	<u>SWMU 8, Open Dump (Covote Canyon Blast Area) and SWMU 58 Covote Canyon Blast Area</u> SWMUs 8 and 58, combined, encompass a large area where explosive testing was conducted. Many smaller areas within these SWMUs have been identified and referred to as "features". The features include locations where testing occurred or where debris was dumped or left on the ground surface after tests were completed. Most of the features occupy only small areas, and potential or actual contamination is limited to surface soil or shallow subsurface soil. The features are also mainly located on the flatter areas within the SWMU boundaries rather than on hill slopes where access is more difficult. SWMU 58 represents the zone of fragment dispersal from explosives testing. The many features found in its area, and including those of SWMU 8, are scattered across much of the two sites. From experience, high order (full) detonations leave but trace amounts of explosives in soil. The components of test objects and test structures that can be found after such detonations tend to be chiefly nonhazardous solid wastes. Although sometimes unsightly, these wastes and remnant structures are not significant threats to human health or the environment. Sampling of surface soil at the numerous features scattered across SWMUs 8 and 58, in my opinion, adequately covers the general dispersion zone of SWMU 58. Contaminants present in surface soil at the features are more likely to occur at higher levels than those in surface soil outside of these features. So, sampling results from the features would be conservative as applied to the overall dispersion zone. I have considerable personal experience walking over SWMUs 8 and 58 looking at the numerous features. In my opinion, Features 8Y/58B (Debris Pile and Pit Area) have the largest potential for being a source for groundwater contamination. These features, collectively, were basically a large open dump containing considerable quantities of debris, including concrete, wood, metal, plastic, and even several jet assist takeoff (JATO) motors, all which chiefly are nonhazardous debris. The main concern was the possibility of liquid contaminants	NMED agrees that the soil at SWMUs 8 and 58 were adequately sampled to determine if risk to human health or the environment exists. In those areas where the potential for groundwater contamination exists, monitoring wells were installed to assess the groundwater for the presence of contamination. However, soil contamination is present at concentrations greater than residential screening levels at Features 8Y/58B and 58 FF and therefore land use controls are necessary. Therefore, NMED agrees that SWMUs 8 and 58 are suitable for CAC status overall, but land use is limited to industrial use only at Features 8Y/58B and 58 FF. Modification: None.
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NO.	COMMENTER ID	COMMENT	NMED RESPONSE
		being disposed of at the dump site, including whether fuel had been used at the site to burn wood and other combustible debris, and whether any such liquids could have contaminated groundwater.	
3	A	Two groundwater monitoring wells were installed to evaluate water quality at SWMUs 8 and 58, including well CCBA-MW1. Well CCBA-MW1 is situated to monitor groundwater from various features, including Features 8Y/58B. Groundwater samples from both wells indicate that no contamination is present, and I make this statement taking into consideration sporadic, low-level detections of toluene, benzo (b) fluoranthene, and benzo (a) pyrene, for which there is no definitive evidence of actual contamination. Fluoride was detected in groundwater at a maximum of 5.36 mg/L, with all other results less than 2 mg/L (the New Mexico Water Quality Control Commission (NMWQCC) standard is 1.6 mg/L); however, I believe the fluoride detected is of natural origin given that the levels of fluoride are not exceptionally elevated, and that SWMUs 8 and 58 are situated along the Tijeras Fault Zone where there is evidence of weak mineralization throughout the area. For example, fluorite (CaF₂) is common at abandoned mines and prospects in the area. In my opinion, based on the investigation already done, additional groundwater wells and groundwater monitoring are not needed at SWMUs 8 and 58. In conclusion, soil sampling indicates that residual contamination at SWMUs 8 and 58 does not pose unacceptable risk to human health or the environment. Groundwater was investigated and determined not to be contaminated. Thus, SWMUs 8 and 58 are appropriate for CAC status.	

NO.	COMMENTS	COMMENT	NMED RESPONSE
4	A	SWMU 68, Old Burn Site SWMU 68 consists of a burn pan, when used for testing, was filled with water and floating fuel. After tests were completed, wastewater was discharged into a ditch where it flowed into an overflow basin. In addition to the burn pan, burn tests using magnesium scrap and SNAP reactors were also conducted in a plastic lined pit. A mound, referred to as the 68A Mound, lies to the north of the burn pan. Of these features, I considered the ditch and overflow basin as the two features having the most potential to cause groundwater contamination.	NMED agrees that the characterization of soil and groundwater is adequate to determine if any contamination is present. SWMU 68 is suitable for CAC status. NMED also agrees that radionuclides are not regulated. However, if the data indicates the presence of radiological contaminants at levels that are not protective of human health and the environment for the current and projected future land use, NMED suggests that land use restrictions be attached to the site. Modification: None.

NO.	COMMENTER ID	COMMENT	NMED RESPONSE
4	A	Soil samples were collected from the burn pan, ditch, and overflow basin. Soil samples were also collected from the plastic line pit, the arroyo south of the 68A Mound, at the 68A mound, and an area cleaned up under a voluntary corrective measure (VCM) in 2004. Table 7 of the Fact Sheet/Statement of Basis shows that, collectively, a number of organic contaminants were detected in soil; however, none represents a significant risk. According to the table, the risk driver for the site is the inorganic constituent arsenic; however, the maximum level of arsenic detected is in my opinion indicative of background levels. Thus, arsenic should not be considered a true contaminant at this site, and its contribution to the risk results should be ignored. Furthermore, in my opinion, all of the metals (inorganics) listed in Table 7 have maximum levels that are indicative of background concentrations. The risk of lead contamination is addressed separately from Table 7, as appropriate. Lead contaminated soil was detected and removed from the overflow basin. The maximum lead concentration found in verification samples was less than 800 mg/kg. In fact, an argument could be made that the average lead concentration left on site is sufficiently low that the site meets the risk level for residential land use (in consideration of the risk pertaining to lead).	

NO.	COMMENTER ID	COMMENT	NMED RESPONSE
4	A	Three groundwater monitoring wells were installed at SWMU 68. Groundwater flow in this part of Kirtland Air Force Base is complex and can be controlled by the bedrock paleotopography beneath the unconsolidated sediments that overly the bedrock. I believe that the well locations that were utilized are acceptable, and that the groundwater data obtained from the wells are adequate to make a decision about groundwater quality at this site. Groundwater samples indicate that no contamination is present, including consideration of the toluene detected at trace levels in the July 2012 samples, which were likely a result of laboratory contamination. Fluoride was detected at about 2.3 mg/L (the NMWQCC standard is 1.6 mg/L); however, I believe this level is indicative of natural conditions. There is no known significant source for fluoride based on historical operations conducted at the site, lending credence to the argument that the observed fluoride is of natural occurrence. Taking all of the above into account, I am satisfied that additional groundwater wells and groundwater monitoring are not needed for this site. The NMED proposes industrial controls for the site stating "However, the estimated excess cancer risk is not acceptable for a residential land-use scenario", which is in reference to radionuclides (cesium-137, thorium-232, uranium-235 and uranium-238). However, these radionuclides are not regulated by the NMED. The DOE, under its procedures and authority, has deemed the site suitable for unrestricted radiological release and may argue against any restriction imposed by the NMED on land use due to these radionuclides. If that push back occurs, I recommend that the NMED accept the position of the DOE as a TEDE of 3.2 mrem/year is much less than background in this part of the world and is a level that does not pose a threat to human health or the environment. In conclusion, soil sampling indicates that residual contamination at SWMU 68 does not pose unacceptable risk to human health or the environment. Groundwater was investigated and determined not to be contaminated. Thus, SWMU 68 is appropriate for CAC status.	

5	A	SWMU 149, Building 9920 Septic System SWMU 149 is an abandoned small septic system consisting of a septic tank connected to a seepage pit. Soil samples collected adjacent to the seepage pit and analyzed for a wide range of possible contaminants indicate that no significant chemical or radiological contamination is present. Traces of various contaminants were sporadically detected in groundwater samples over several years of monitoring; however, the only significant and consistently detected potential contaminants are selenium and fluoride. Selenium, although at concentrations exceeding the approved background level, does not occur at concentrations exceeding the U. S. Environmental Protection Agency (EPA) Maximum Contaminant Limit (MCL) or NMWQCC standard of 0.05 mg/L. Fluoride exceeds the NMWQCC standard of 1.6 mg/L. However, the levels of selenium and fluoride do not notably exceed the approved background levels for these constituents. Based on my experience working on groundwater issues at SNL, including that concerning the establishment of background conditions, I believe the selenium and fluoride concentrations detected in the water samples from well CTF-MW3 are of natural origin and are related to the geologic environment that exists where the SWMU is located. My opinion is supported in that concentrations of chloride and potassium suggest that the groundwater at SWMU 149 contains a component of deep-sourced groundwater that is upwelling along faults. Deep groundwaters often contain higher concentrations of natural inorganic constituents compared to shallow, usually younger groundwaters. The one-time trace detections of constituents such as acetone, toluene, and 2-amino 4,6-dinitrotoluene are of no concern. It is doubtful that these constituents are actually present in the groundwater, and if they do, they occur at insignificant levels. Nitrate is also of no concern even though levels occasionally slightly exceed the approved background level which is not uncommon at some areas within Kirtland Air Force Base. Nitrate at this site does not exceed the EPA MCL and NMWQCC standard of 10 mg/L.	NMED agrees that soil and groundwater sampling indicate that the trace levels of contamination at SWMU 149 do not pose unacceptable risk to human health or the environment. Therefore, SWMU 149 is suitable for CAC status without controls. Modification: None.
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NO.	COMMENTER ID	COMMENT	NMED RESPONSE
5	A	The trihalomethanes chloroform, bromodichloromethane, and dibromochloromethane were detected at generally less than 0.5 µg/L in six, two, and three groundwater samples, respectively, over a period of eight quarters suggesting that they might be groundwater contaminants. However, none of these compounds exceeds their respective tap water screening level. Furthermore, chloroform occurs at levels far below the NMWQCC standard of 0.100 mg/L. All three trihalomethanes combined do not exceed EPA's standard for total trihalomethanes at 0.080 mg/L. Although these compounds may be used as solvents, refrigerants, or feedstock for making other chemicals, they occur occasionally in trace amounts in drinking water as a result of disinfecting water using chlorine. If these trihalomethanes are indeed groundwater contaminants, the trace levels at which they have been detected indicate that they are insignificant. Thus, additional groundwater wells and groundwater monitoring are not needed for this site. In conclusion, soil and groundwater sampling indicate that the trace levels of contamination at SWMU 149 do not pose unacceptable risk to human health. The depth at which contamination occurs precludes unacceptable ecological risk. Thus, SWMU 149 is appropriate for CAC status based on a residential land use scenario.	

6	A	<u>SWMU 154, Building 9960 Septic System, Septic Tanks and Drainfield</u> SWMU 154 consists of a small septic system that discharged from Building 9960 to a seepage pit east of the building, and a small high explosives (HE) drain system connected to two seepage pits on the west side of the building. In addition, there is a small seepage pit located approximately 43 feet northwest of Building 9961. Soil samples collected adjacent to the seepage pits indicate that barium; silver; 2-Amino-4,6-dinitrotoluene; 4-amino-4,6-dinitrotoluene; 2,4-dinitrotoluene; 3-nitrotoluene; 4-nitrotoluene; 1,3,5,7-Tetranitro-1,3,5,7-tetrazocane (HMX); 1,3,5-Trinitrobenzene; hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX); and 2,4,6-Trinitrotoluene contamination are present in subsurface soil surrounding the HE seepage pits. 2,4,6-Trinitrotoluene is the main risk driver for soil contamination. The HE drain system at SNL is unusual among the small septic systems at SNL in that appreciable contamination was found in soil at the site. I note that arsenic, selenium, and chromium (III and VI) are included as soil contaminants in the risk assessment, but each of these are	NMED agrees that soil and groundwater sampling indicate that the trace levels of contamination at SWMU 154 are adequately characterized and do not pose unacceptable risk to human health or the environment under an industrial land-use scenario. Therefore, SWMU 154 is suitable for CAC status with controls. Modification: None.
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NO.	COMMENTS ID	COMMENT	NMED RESPONSE
		likely representative of natural background concentrations, should not be considered as contaminants for the site, and should be ignored in evaluating the risk assessment results. I also believe that lead, detected at a maximum concentration of 30 mg/kg, occurs only at background levels and should not be considered a contaminant at SWMU 154. In groundwater samples, RDX is the only compound with consistent detections. RDX occurs at small concentrations (about 0.1-0.3 µg/L) compared to the screening level for tap water of 7.02 µg/L. Sporadic trace detections of other organic and inorganic contaminants in groundwater are of no concern as there is no definitive evidence that they are indeed contaminants. Furthermore, I believe the elevated fluoride and arsenic levels observed in groundwater at SWMU 154 are of natural origin, and do not represent contamination. Concentrations of chloride and potassium suggests that the groundwater at SWMU 154 contains a component of deep-sourced groundwater that is upwelling along faults. Deep groundwaters often contain higher concentrations of natural inorganic constituents compared to shallow, usually younger groundwaters. Furthermore,	

NO.	COMMENTS ID	COMMENT	NMED RESPONSE
6		there is no source of fluoride or arsenic at SWMU 154, and arsenic was detected only at background levels. In summary, the only real contaminant in the groundwater at SWMU 154 is RDX, albeit at trace concentrations of no concern. The levels of contamination found in soil and groundwater at SWMU 154 do not pose unacceptable risk to human health or the environment for the foreseeable future land use. Furthermore, the trace concentrations of RDX in groundwater are not significant, thus, additional groundwater monitoring or further investigation of groundwater are not needed for this site. SWMU 154 is appropriate for CAC status based on an industrial land use scenario.	

NO.	COMMENTS ID	COMMENT	NMED RESPONSE
7	A	SWMU 502, Building 9938 Surface Discharge Site SWMU 502 consists of a small area defined by a shallow depression located near Building 9938. Approximately 250-gallons of wastewater that was generated from explosive synthesis activities were discharged to the ground surface at the site. The site conceptual model is simple -- shallow soil contamination would be all that would be expected given the small amount of the discharge and that groundwater is in the range of 350 feet. Pentaerythritol tetranitrate (PETN); RDX; Dinitrophenol, 2,4-; HMX, barium, and perchlorate are the contaminants found in the soil, with PETN being the main risk driver for this SWMU. Trace amounts of numerous other organic contaminants were also detected in the soil samples, but they are not of significance. Although arsenic and antimony are also listed as risk drivers according to Table 11 of the Fact Sheet/Statement of Basis, in my opinion, these constituents are of naturally occurring concentrations, are not contaminants, and should be ignored as risk drivers. Furthermore, all other inorganic constituents listed in Table 11, with the exception of barium, also represent background concentrations, and thus, should not be classified as actual contaminants for the site; they too should be ignored as contributing to the calculated risk for the site. As would be expected, concentrations of PETN generally decrease notably at depths of 2 feet or more, indicating most of the contamination was in surface soil. The low levels of soil contamination that occur at SWMU 502 do not pose unacceptable risk to the environment or human health based on a residential land use scenario. Thus, SWMU 502 is appropriate for CAC status.	NMED agrees that the minimal levels of soil contamination documented at SWMU 502 do not pose a risk to human health or the environment. SWMU 502 is suitable for CAC status under a residential land-use scenario. Modification: None.

NO.	COMMENTS ID	COMMENT	NMED RESPONSE
8	A	In summary, all six of the SWMUs proposed for Corrective Action Complete should be granted this status. Additionally, there is no need for the groundwater monitoring that was conducted at some of these SWMUs to continue into the future, and there is no need for further groundwater investigations. My latter point considers that additional investigations would be costly and require considerable investment of work and time by the DOE/SNL and the NMED, with little chance that significant contamination would be found by the additional effort. Because no standards have been exceeded, groundwater remediation is not warranted at any of the SWMUs where groundwater was investigated.	NMED agrees that sufficient groundwater monitoring has been performed at all the SWMUs proposed for Corrective Action Complete. Modification: None.

9	B	<u>SWMU 68, Old Burn Site, Central Coyote Test Area</u> The Permittees oppose any NMED intent to regulate radiological constituents. This opposition is based on the lack of NMED jurisdiction, as acknowledged by the 2004 Compliance Order on Consent (NMED 2004), which states: "The requirements of this Order do not apply to radionuclides ..." DOE has agreed to voluntarily provide information to the NMED on radiological constituents and continues to provide that information, but such information is not subject to enforcement under the Order (see Section III of the Consent Order). Furthermore, as noted in the April 30, 2006 letter from Patty Wagner to James Bearzi (DOE 2006) the radiological risk concerns of any given site are the jurisdiction of the DOE, not NMED. This division of authority was also expressed by the NMED in a letter dated 01/08/2007 regarding Environmental Restoration (ER) Site 28-2 which indicated that radiological risk will not be considered in Corrective Action Complete determinations (NMED January 2007). Please note that the pertinent reference value that has been agreed to between NMED and DOE in 1998 regarding the discussion of radiological aspects of NO Further Action (NFA) documents is dose, not risk [SNL/NM January 1998]. The TEDE for SWMU 68 is less than the residential standard of 75 millirem per year. The radiological standards have been met at this site for residential land use and should be stated as such in a correction to the SOB. This site meets the radiological dose requirements, and the nonradiological risk is acceptable for a residential land-sue scenario. Therefore, SWMU 68 should be listed on Table K-4 of the Permit as CAC without Controls, and should not be included in Permit Attachment M.	NMED believes it must consider the risk of radiological contaminants as part of determining the overall risk of exposure to contaminants (radioactive or chemical) at any given site. If both hazardous constituents and radionuclides have been released at a site, NMED may require additional clean-up of the hazardous constituents to lower the overall risk to human health and the environment to levels that are sufficiently protective. NMED appreciates that DOE shares information on radiological constituents detected at sites. Such information is not subject to enforcement under the Consent Order. However, if the information indicates the presence of radiological contaminants at levels that are not protective of human health and the environment for the current and projected future land use, NMED will request that DOE attach land use restrictions to the site. While NMED does not have the authority to regulate radionuclides, NMED can request that land-use restrictions be imposed on a site based upon cancer risk related to radionuclide contamination. The overall cancer risk due to residual radiological contamination is not acceptable for residential (unrestricted) land use as indicated in the Statement of Basis. NMED does not have the authority to place restrictions on land use based upon an unacceptable excess cancer risk due solely to the presence of radiological constituents. Therefore, SWMU 68 will be listed as CAC without Controls. NMED is requesting that DOE place land use restriction on the SWMU due to the excess cancer risk from radionuclides. Modification: NMED will move SWMU 68 from Table K-3 to Table K-4 to reflect CAC without Controls status for SWMU 68.
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NO.	COMMENTS ID	COMMENT	NMED RESPONSE
10	B	<u>SWMUs 8 and 58, Feature 58B/8Y, Debris Pile and Pit Area</u> The Permittees do not agree with the risk assessment methodology used to evaluate the risk associated with nonradiological COCs at this site. For the residential land-use scenario the site has been adequately characterized, and average concentrations are more representative of the actual site conditions. Using the upper confidence limit (UCL) of the mean concentrations leads to a total hazard index (HI) of 0.71 which is below NMED guidelines. In addition, none of the individual hazard quotients for noncarcinogens exceed 1.0 at maximum concentrations. The Permittees recommend a risk-based determination of CAC without Controls for Feature 58B/8Y.	Four of ten soil samples collected at the site after soil excavation contained concentrations of high explosives (HE) above background levels. All the soil samples collected at the time had concentrations of copper above background soil concentrations. Nickel, one of the main drivers of the elevated risk numbers, was also detected in the samples at depth. While the risk assessment used proper methodology, given the uncertainties in the soil sampling data, the small number of samples collected in this relatively large Feature, and the shallow depth of the contamination, NMED does not approve using the mean concentrations to calculate the HI. Therefore, the level of risk is acceptable under an industrial land-use scenario, and controls limiting land use to industrial apply to the site. Modification: None
11	B	<u>SWMU 58, Feature 58FF, Fire Brick</u> The permittees agree with the NMED conclusion that Feature 58FF is acceptable for industrial land use. However, the Permittees do not agree with the risk assessment methodology used to evaluate the risk associated with the nonradiological COCs at this site. For the residential land-use scenario the site has been adequately characterized, and average concentrations are more representative of the actual site conditions. For the residential land-use scenario, using the UCL of the mean concentrations provides more realistic concentrations in the risk calculations that more accurately depict actual site conditions. Based on this methodology the total and incremental HI, and incremental estimated excess cancer risk values are below NMED guidelines for residential land-use. Regardless, the Permittees agree that Feature 58FF should be CAC with controls because lead is present in the soil at levels that exceed the EPA residential screening levels.	NMED agrees that the minimal levels of soil contamination documented at Feature 58FF do not pose a risk to human health or the environment. However, while the site was adequately characterized and the use of the UCL of the mean concentrations is appropriate in the risk methodology used by SNL, the elevated levels of lead in the soil merit controls for the site. Therefore, Feature 58FF is suitable for CAC status under an Industrial land-use scenario. Modification: None.

NO.	COMMENTS ID	COMMENT	NMED RESPONSE
12	B	The comments address proposed modifications to Tables K-3 and K-4 in Permit Attachment K and Table M-1 in Permit Attachment M.	Modification: Table K-4 will be changed to list SWMU 68 as Corrective Action Complete without Controls. SWMU 68 will not be listed on Table M-1 as a site requiring institutional controls.