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Los Alamos NATIONAL LABORATORY

Waste Management Division
Waste Management Programs (WM-PROG)
PO Box 1663, M704
Los Alamos, New Mexico 87545
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National Nuclear Security Administration
Los Alamos Field Office, A316
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Los Alamos, New Mexico, 87545
(505) 667-5794/FAX (505) 667-5948

Date: July 10, 2013
Symbol: WM-DO-13-0011
LAUR: 13-24250

Mr. John E. Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Dear Mr. Kieling:

SUBJECT: REVISION TO RESPONSE TO PUBLIC NOTICE NO. 13-01, NOTICE OF PUBLIC COMMENT PERIOD AND OPPORTUNITY TO REQUEST A PUBLIC HEARING FOR A CLASS 3 HAZARDOUS WASTE PERMIT MODIFICATION REQUEST FOR LOS ALAMOS NATIONAL LABORATORY, EPA ID NUMBER: NM0890010515 LA-UR-13-21734

The purpose of this letter is to transmit updated information pertaining to the proposed Technical Area (TA) 63 Transuranic Waste Facility (TWF) Permit Modification Request Public Notice referenced above. Public Notice No. 13-01 announced the New Mexico Environment Department's (NMED's) intent, pending public input, to approve a Class 3 Permit Modification Request for the TWF originally submitted by the United States Department of Energy and Los Alamos National Security, LLC (Permittees), on August 18, 2011.

The Permittees responded to the Notice with the document, *Permittees Comments on the Revised Draft Permit for the TA-63 Transuranic Waste Facility* on March 14, 2013. Recent soil gas analytical data for Material Disposal Area (MDA)-C in the vicinity of the TWF was originally sent as Attachment 1 in the Comments in support of proposed actions for potential soil gas monitoring activities for the new hazardous waste management unit.

This transmittal letter includes an updated Attachment 1 containing analytical results for the sampling of soil gas volatile organic compounds (VOCs) at MDA C. The initial submittal of Attachment 1 contained results that used an incorrect calculation for the concentration of VOC constituents. The Permittees' identified the issue and notified Mr. Tim Hall of the NMED Hazardous Waste Bureau by telephone on May 21, 2013, and was directed to resubmit the corrected data.

The source of the error in the data calculation has been determined to be a software input error associated with conversion factors for pore gas data. The chemical-specific conversion factors are used to convert the units

provided by the analytical laboratory (parts per billion by volume) to reporting units (micrograms per cubic meter). The data error was discovered during the preparation of another report and has been corrected. However, this did not occur until after the submittal of the March 14 Comments. This error does not affect any other pore gas data previously reported to NMED.

The re-calculated data do not contradict the Permittees' response to NMED's draft permit or change the Permittees' overall conclusions, but affect specific observations about the pore vapor concentrations in the MDA-C vapor plume. The corrected results support the general discussion regarding the nature of the concentration gradient from the middle of the vapor plume to the TA-63 location, the extent of the plume, and the observance of a general decrease in concentrations from previous sampling events. However, the decrease is not as large as originally calculated and the comparison with pore vapor concentration threshold limit values (TLVs) has been altered.

It was noted in the Comments, Section B, 3.14.3 Subsection 2. *Consent Order Investigations and History of MDA C*, (last paragraph) that: "No VOC concentrations from the most recent event exceeded TLVs." Based on the recalculation, the correct statement would be that a single VOC concentration (Sample ID MD50-13-24041) from the sampling event exceeded the TLV for trichloroethene. This sample was taken from the highest concentration area of the soil vapor plume at MDA-C at a depth of 241 feet and not in the area near the TWF.

If you have comments or questions regarding this submittal, please contact Gene E. Turner at (505) 667-5794 or Mark P. Haagenstad at (505) 665-2014.

Sincerely,

For Jody A. Armijo
Group Leader (Acting), Waste Management Programs
Waste Management Division Office
Los Alamos National Security LLC

Sincerely,

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Field Office
U.S. Department of Energy

JAA:GET

Enclosure 1: Attachment 1: Results of October-November 2012 Vapor Monitoring at MDA C, Revision 1.0

Cy: Laurie King, USEPA/Region 6, Dallas, TX, w/enc.
Tim Hall, NMED/HWB, Albuquerque, NM, w/enc.
Juan L. Griego, NA-00-LA, w/o enc., (E-File)
Peter Maggiore, NA-00-LA, w/o enc., (E-File)
Gene E. Turner, NA-00-LA, w/o enc., (E-File)
Carl A. Beard, PADOPS, w/o enc., A102
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Bob Dodge, WM-DO, w/o enc., (E-File)
Gregory B. Juerling, MOF-PM2, w/o enc., (E-File)
David J. McInroy, CAP, w/o enc., (E-File)
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ENCLOSURE 1

Attachment 1: Results of October-November 2012 Vapor Monitoring at MDA C, Revision 1.0

WM-DO-0011

LAUR-13-24250

Date: July 10, 2013

Attachment 1

MDA C Monitoring Well Network Sampling Results

Attachment 1 Results of October–November 2012 Vapor Monitoring at MDA C Revision 1.0 June, 2013

Sample Group	Field Sample ID	Location ID	Depth (ft)	Sample Type	Carbon Tetrachloride	Chloroform	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloroethene[cis-1,2-]	Dichloropropane[1,2-]	Hexane	Hexanone[2-]	Methylene Chloride	Tetrachloroethene	Tetrahydrofuran	Trichloro-1,2,2-trifluoroethane[1,1	Trichloroethane[1,1,1-]	Trichloroethene
		ACGIH TLV			31,500	48,800	4,950,000	405,000	40,500	19,800	na[a]	46,200	176,000	20,500	174,000	170,000	147,000	7,660,000	1,910,000	53,700
Organic Chemical Detects per Sample, Standard UOM = ug/m3																				
50-009	MD50-13-24032	50-24784	155-155	Gas	182	293	138	-	-	-	-	69	-	-	-	2305	-	138	55	3706
50-009	MD50-13-24033	50-24784	244-244	Gas	270	107	178	-	-	-	-	-	-	-	-	1898	-	100	-	3974
50-009	MD50-13-24034	50-24784	362-362	Gas	377	-	242	-	-	-	-	-	-	-	-	1356	-	-	-	2793
50-009	MD50-13-24035	50-24784	450-450	Gas	245	-	208	-	-	-	-	-	-	-	-	454	-	-	-	967
50-009	MD50-13-24038	50-24813	25-25	Gas	1257	1122	385	-	-	-	-	-	-	-	-	454	-	-	-	13426
50-009	MD50-13-24040	50-24813	150-150	Gas	1006	1659	593	-	-	-	325	-	-	-	347	386	-	-	-	26852
50-009	MD50-13-24041	50-24813	241-241	Gas	1446	1805	1680	-	-	-	515	-	-	-	1007	813	-	-	-	69816
50-009	MD50-13-24036	50-24813	358-358	Gas	396	283	741	-	-	-	-	-	-	-	-	-	-	-	-	26315
50-009	MD50-13-24037	50-24813	450-450	Gas	446	-	890	-	-	-	-	-	-	-	160	271	-	-	-	26315
50-009	MD50-13-24039	50-24813	600-600	Gas	132	-	385	-	-	-	-	-	-	-	-	-	-	-	-	3330
50-009	MD50-13-24042	50-24822	25-25	Gas	75	273	222	-	-	-	-	-	-	-	-	183	-	-	-	6982
50-009	MD50-13-24046	50-24822	142-142	Gas	226	586	741	-	-	-	135	-	-	-	167	210	-	-	-	24704
50-009	MD50-13-24044	50-24822	235-235	Gas	296	586	1087	-	-	-	158	-	-	-	330	-	-	-	-	36519
50-009	MD50-13-24045	50-24822	351-351	Gas	126	83	440	-	-	-	-	-	-	-	62	-	-	-	-	11815
50-009	MD50-13-24043	50-24822	450-450	Gas	145	-	455	-	-	-	-	-	-	-	-	-	-	-	-	9130
50-009	MD50-13-24051	50-603061	25-25	Gas	-	-	741	-	-	246	-	-	-	-	-	102	-	11488	1527	462
50-009	MD50-13-24047	50-603061	128-128	Gas	-	-	465	-	-	1704	-	-	-	-	-	298	-	27572	5180	2739
50-009	MD50-13-24048	50-603061	228-228	Gas	-	-	316	-	-	1268	-	-	-	-	-	210	-	19147	3435	3437
50-009	MD50-13-24049	50-603061	347-347	Gas	88	-	252	-	-	222	-	-	-	-	-	81	-	5821	403	1181
50-009	MD50-13-24050	50-603061	450-450	Gas	-	-	158	-	-	59	-	-	-	-	-	-	-	1532	-	532
50-009	MD50-13-24052	50-603062	122-122	Gas	-	68	222	-	-	-	-	-	-	-	-	-	-	368	50.70916028 (J)	6445
50-009	MD50-13-24053	50-603062	217-217	Gas	-	-	282	-	-	-	-	-	-	-	-	-	-	444	-	6982
50-009	MD50-13-24054	50-603062	337-337	Gas	-	-	178	-	-	-	-	-	-	-	-	-	-	115	-	2041
50-009	MD50-13-24055	50-603062	450-450	Gas	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	591
50-009	MD50-13-24060	50-603063	25-25	Gas	-	-	198	-	-	-	-	-	-	-	-	346	-	2298	305	1396
50-009	MD50-13-24056	50-603063	128-128	Gas	126	229	385	57	-	214	-	-	-	-	-	746	-	3676	600	6982
50-009	MD50-13-24057	50-603063	228-228	Gas	365	488	692	-	-	349	127	-	-	-	-	1491	-	5131	654	22556
50-009	MD50-13-24058	50-603063	347-347	Gas	214	195	381	-	-	-	-	-	-	-	56	576	-	1149	-	11278
50-009	MD50-13-24059	50-603063	450-450	Gas	170	132	267	-	-	-	-	-	-	-	-	325	-	138	-	7519
50-009	MD50-13-24061	50-603064	113-113	Gas	-	927	593	-	-	674	269	-	-	-	-	657	-	12254	2672	28463
50-009	MD50-13-24062	50-603064	214-214	Gas	-	488	840	-	-	634	202	-	-	-	382	468	-	11488	1854	29537
50-009	MD50-13-24063	50-603064	332-332	Gas	182	-	593	-	-	143	-	-	-	-	66	203	-	3293	169	13963
50-009	MD50-13-24064	50-603064	500-500	Gas	-	-	282	-	-	-	-	-	-	-	-	-	-	184	-	1504
50-009	MD50-13-24157	50-603383	26-26	Gas	-	-	163	-	-	-	-	-	-	-	-	332	-	375	71	752
50-009	MD50-13-24153	50-603383	139-139	Gas	170	156	381	-	-	67	-	249	-	-	38	1152	-	1225	207	4296
50-009	MD50-13-24154	50-603383	244-244	Gas	289	127	321	-	-	59	48	309	-	-	56	1220	-	758	164	5370
50-009	MD50-13-24155	50-603383	359-359	Gas	138	-	193	-	-	-	-	-	-	-	-	258	-	276	-	1450
50-009	MD50-13-24156	50-603383	450-450	Gas	207	-	222	-	-	-	-	-	-	-	-	258	35	84	-	1343
50-009	MD50-13-24066	50-603467	143-143	Gas	346	488	208	-	-	-	95	-	-	-	104	-	-	-	-	10741
50-009	MD50-13-24070	50-603467	244-244	Gas	629	732	489	-	-	-	202	-	-	-	590	881	-	-	-	30074
50-009	MD50-13-24068	50-603467	360-360	Gas	534	400	410	-	-	-	-	-	-	-	146	746	-	-	-	29000
50-009	MD50-13-24069	50-603467	500-500	Gas	214	-	257	-	-	-	-	-	-	-	-	258	-	-	-	8593
50-009	MD50-13-24067	50-603467	600-600	Gas	126	-	168	-	-	-	-	-	-	409	-	115	100	-	-	3652
50-009	MD50-13-24159	50-603468	142-142	Gas	365	478	425	-	-	-	151	-	-	-	208	373	-	-	-	24167
50-009	MD50-13-24158	50-603468	233-233	Gas	572	586	692	-	-	-	210	-	-	-	555	434	-	-	-	29537
50-009	MD50-13-24160	50-603468	354-354	Gas	377	249	544	-	-	-	95	-	-	-	243	258	-	-	-	20408
50-009	MD50-13-24161	50-603468	403-403	Gas	440	205	692	-	-	-	-	-	-	-	212	305	-	-	-	22556
50-009	MD50-13-24077	50-603470	83-83	Gas	547	1659	642	-	-	-	262	-	-	-	-	1220	-	528	-	25778
50-009	MD50-13-24078	50-603470	203-203	Gas	-	1122	1137	-	-	-	-	-	-	-	590	-	-	766	-	40278
50-009	MD50-13-24079	50-603470	278-278	Gas	-	830	1236	-	-	-	-	-	-	-	660	-	-	842	-	45112
50-009	MD50-13-24080	50-603470	351-351	Gas	-	-	741	-	-	-	-	-	-	-	226	-	-	-	-	22556

Sample Group	Field Sample ID	Location ID	Depth (ft)	Sample Type	Carbon Tetrachloride	Chloroform	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloroethene[cis-1,2-]	Dichloropropane[1,2-]	Hexane	Hexanone[2-]	Methylene Chloride	Tetrachloroethene	Tetrahydrofuran	Trichloro-1,2,2-trifluoroeth ne[1,1,2	Trichloroethane[1,1,1-]	Trichloroethene
		ACGIH TLV			31,500	48,800	4,950,000	405,000	40,500	19,800	na[a]	46,200	176,000	20,500	174,000	170,000	147,000	7,660,000	1,910,000	53,700
Organic Chemical Detects per Sample, Standard UOM = ug/m3																				
50-009	MD50-13-24081	50-603470	450-450	Gas	251	-	791	-	-	-	-	-	-	-	80	149	-	184	-	19334
50-009	MD50-13-24075	50-603470	600-600	Gas	-	-	297	-	-	-	-	-	-	-	-	-	-	-	-	1557
50-009	MD50-13-24076	50-603470	650-650	Gas	-	-	69	-	-	-	-	-	-	-	-	-	-	-	-	86
50-009	MD50-13-24082	50-603471	90-90	Gas	1635	1854	405	-	133	-	242	-	-	-	257	1017	-	314	-	19871
50-009	MD50-13-24083	50-603471	209-209	Gas	629	1464	385	-	-	-	329	-	-	-	903	949	-	-	-	35445
50-009	MD50-13-24084	50-603471	288-288	Gas	1069	1366	1038	-	-	-	396	-	-	-	1736	949	-	-	-	53167
50-009	MD50-13-24085	50-603471	360-360	Gas	754	634	1038	-	-	-	-	-	-	-	833	881	-	-	-	44575
50-009	MD50-13-24086	50-603471	450-450	Gas	616	444	642	-	-	-	147	-	-	-	347	746	-	-	-	38667
50-009	MD50-13-24143	50-603472	27-27	Gas	-	263	49	-	-	-	-	-	-	-	-	495	-	-	-	2685
50-009	MD50-13-24144	50-603472	146-146	Gas	214	586	188	-	-	-	123	106	-	-	417	813	-	-	-	13426
50-009	MD50-13-24147	50-603472	292-292	Gas	472	586	465	-	-	-	174	-	-	-	868	1559	-	-	-	31149
50-009	MD50-13-24145	50-603472	364-364	Gas	346	156	455	-	-	-	-	-	-	-	229	813	-	-	-	17185
50-009	MD50-13-24146	50-603472	450-450	Gas	308	-	381	-	-	-	-	-	-	-	80	576	-	-	-	11815
50-009	MD50-13-24094	50-603503	133-133	Gas	57	102	74	-	-	-	-	-	-	-	-	474	-	123	-	2148
50-009	MD50-13-24093	50-603503	237-237	Gas	107	127	99	-	-	-	-	-	-	-	111	529	-	-	-	4887
50-009	MD50-13-24092	50-603503	347-347	Gas	75	54	89	-	-	-	-	-	-	-	38	312	-	-	-	2900
50-009	MD50-13-24091	50-603503	450-450	Gas	88	-	99	-	-	-	-	-	-	-	-	244	-	-	-	2954
50-009	MD50-13-24089	50-613182	550-550	Gas	157	-	282	-	-	-	-	-	-	-	-	169	-	-	-	3222
50-009	MD50-13-24087	50-613183	550-550	Gas	163	-	435	-	-	-	-	-	-	-	-	75	-	-	-	3813
50-009	MD50-13-24088	50-613183	642.5-642.5	Gas	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	75
50-009	MD50-13-24074	50-613184	500-500	Gas	138	-	297	-	-	-	-	-	-	-	-	-	-	-	-	4135
50-009	MD50-13-24073	50-613184	600-600	Gas	-	-	138	-	-	-	-	-	-	-	-	-	-	-	-	698
50-009	MD50-13-24072	50-613184	664.5-664.5	Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107
50-009	MD50-13-24099	50-613185	145-145	Gas	94	107	148	-	-	-	-	-	-	-	-	81	-	-	-	4619
50-009	MD50-13-24098	50-613185	235-235	Gas	138	93	213	-	-	-	-	-	-	-	62	122	-	-	-	7519
50-009	MD50-13-24095	50-613185	350-350	Gas	113	-	193	-	-	-	-	-	-	-	-	-	-	-	-	4082
50-009	MD50-13-24096	50-613185	450-450	Gas	69	-	133	-	-	-	-	-	-	-	-	-	-	-	-	1557
50-009	MD50-13-24097	50-613185	600-600	Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97

Document: MDA C VOC Update
Date: June 2013

CERTIFICATION

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

Robert L. Dodge

7/10/13

Robert L. Dodge
Division Leader
Waste Management Division
Los Alamos National Laboratory
Operator

Date Signed

15 JULY 2013

Geoffery L. Beausoleil
Acting Manager, Los Alamos Field Office
National Nuclear Security Administration
U.S. Department of Energy
Owner/Operator

Date Signed

Document: MDA C VOC Update
Date: June 2013

INTERNAL CERTIFICATION
ENVIRONMENTAL PROGRAMS DIRECTORATE

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

Kathryn Roberts

Kathryn M. Roberts
Group Leader, Regulatory Support and Performance
Regulatory Management Program
Los Alamos National Laboratory

6-27-13

Date Signed