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DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Field Office
Los Alamos, New Mexico 87544



ENTERED



Kieling

MAR 05 2014

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

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

RECEIVED

MAR 10 2014

NMED
Hazardous Waste Bureau

Dear Mr. Kieling:

Subject: Formal Notification of Methane at 100 percent of the Lower Explosive Limit at Vent Risers along the North Edge of the Los Alamos Airport Landfill Cap for the Month of February 2014

The purpose of this letter is to provide formal notification to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) of methane at 100 percent of the Lower Explosive Limit (LEL) at vent risers along the north edge of the Los Alamos Airport Landfill cap. Enclosed are the four Landfill Gas Monitoring Reports for the month of February 2014.

If you have comments or questions, please contact Ramoncita N. Massey of my staff at (505) 665-7771.

David S. Rhodes
Federal Project Director
Environmental Projects Office

Enclosures



cc w/enclosures:

Dave Cobrain

Hazardous Waste Bureau
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T. Haagenstad, CAP, LANS, MS-M992
Records Center, NA-LA
Official Contract File, NA-LA

EPO-32RM-589-563684

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 2/4/14 Barometric Pressure: 29.79 Temperature: 26 F

Weather conditions: Partly Cloudy Wind Direction: WNW Wind Speed: 5 mph

Date and amount of last precipitation (within last 48 hours): 2/3/14 0.5" snow

Instrument: MSA Altair 5X #1550 Calibration method and date: Pentane gas 2/4/14

February Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*				
HP-02	2 inches above expansion joint*				
HP-03	2 inches above expansion joint*				
HP-04	2 inches above expansion joint*				
HP-05	2 inches above expansion joint*				
HP-06	2 inches above expansion joint*				
HP-07	2 inches above expansion joint*				
HP-08	2 inches above expansion joint*				
HP-09	2 inches above expansion joint*				
HP-10	2 inches above expansion joint*				
HP-11	2 inches above expansion joint*				
HP-12	2 inches above expansion joint*				
HP-13	2 inches above expansion joint*				
HP-14	2 inches above expansion joint*				
HP-15	2 inches above expansion joint*				

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate				
TD-02	4 inches below trench grate				
TD-03	4 inches below trench grate				
TD-04	4 inches below trench grate				
TD-05	4 inches below trench grate				
TD-06	4 inches below trench grate				
TD-07	4 inches below trench grate				
TD-08	4 inches below trench grate				
TD-09	4 inches below trench grate				
TD-10	4 inches below trench grate				
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate				
DC-02	4 inches below grate				
DC-03	4 inches below grate				
DC-04	4 inches below grate				
DC-05	4 inches below grate				
DC-06	4 inches below grate				
DC-07	4 inches below grate				
DC-08	4 inches below manhole lid				
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface				
PG-02	2 inches above ground surface				
PG-03	2 inches above ground surface				
PG-04	2 inches above ground surface				
PG-05	2 inches above ground surface				
PG-06	2 inches above ground surface				
PG-07	2 inches above ground surface				
PG-08	2 inches above ground surface				

PG-09	2 inches above ground surface				
PG-10	2 inches above ground surface				
PG-11	2 inches above ground surface				
PG-12	2 inches above ground surface				
PG-13	2 inches above ground surface				
PG-14	2 inches above ground surface				
PS-01	at spinner (4 ft above pavement)	0936	0	0	0
PS-02	at spinner (4 ft above pavement)	0938	32	20.3	0
PS-03	at spinner (4 ft above pavement)	0939	34	20.6	0
PS-04	at spinner (4 ft above pavement)	0940	0	0	0
PS-05	at spinner (4 ft above pavement)	0942	100	17.5	0
PS-06	at spinner (4 ft above pavement)	0944	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Snow on ground and asphalt. Could not measure methane from other locations.

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 2/12/14 Barometric Pressure: 30.21 Temperature: 36 F

Weather conditions: Mostly Sunny Wind Direction: WNW Wind Speed: 3 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1308 Calibration method and date: Pentane gas 1/22/14

February Weekly Monitoring

Sample Location	Height (ft)	Time	CH₄ % LEL	O₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	0944	0	20.8	0
HP-02	2 inches above expansion joint*	0945	0	20.8	0
HP-03	2 inches above expansion joint*	0946	0	20.8	0
HP-04	2 inches above expansion joint*	0947	0	20.8	0
HP-05	2 inches above expansion joint*	0948	0	20.8	0
HP-06	2 inches above expansion joint*	0949	0	20.8	0
HP-07	2 inches above expansion joint*	0950	0	20.8	0
HP-08	2 inches above expansion joint*	0951	0	20.8	0
HP-09	2 inches above expansion joint*	0952	0	20.8	0
HP-10	2 inches above expansion joint*	0954	0	20.8	0
HP-11	2 inches above expansion joint*	0955	0	20.8	0
HP-12	2 inches above expansion joint*	0956	0	20.8	0
HP-13	2 inches above expansion joint*	0958	0	20.8	0
HP-14	2 inches above expansion joint*	0959	0	20.8	0
HP-15	2 inches above expansion joint*	1000	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	0943	0	20.8	0
TD-02	4 inches below trench grate	0942	0	20.8	0
TD-03	4 inches below trench grate	0947	0	20.8	0
TD-04	4 inches below trench grate	0946	0	20.8	0
TD-05	4 inches below trench grate	0950	0	20.8	0
TD-06	4 inches below trench grate	0949	0	20.8	0
TD-07	4 inches below trench grate	0954	0	20.8	0
TD-08	4 inches below trench grate	0953	0	20.8	0
TD-09	4 inches below trench grate	0958	0	20.8	0
TD-10	4 inches below trench grate	0957	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	0941	0	20.8	0
DC-02	4 inches below grate	0940	0	20.8	0
DC-03	4 inches below grate	0939	0	20.8	0
DC-04	4 inches below grate	0938	0	20.8	0
DC-05	4 inches below grate	0937	0	20.8	0
DC-06	4 inches below grate	0936	0	20.8	0
DC-07	4 inches below grate	0935	0	20.8	0
DC-08	4 inches below manhole lid	1019	0	20.8	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1002	0	20.8	0
PG-02	2 inches above ground surface	1003	0	20.8	0
PG-03	2 inches above ground surface	1004	0	20.8	0
PG-04	2 inches above ground surface	1006	0	20.8	0
PG-05	2 inches above ground surface	1008	0	20.8	0
PG-06	2 inches above ground surface	1010	0	20.8	0
PG-07	2 inches above ground surface	1011	0	20.8	0
PG-08	2 inches above ground surface	1012	0	20.8	0

PG-09	2 inches above ground surface	1013	0	20.8	0
PG-10	2 inches above ground surface	1018	0	20.8	0
PG-11	2 inches above ground surface	1017	0	20.8	0
PG-12	2 inches above ground surface	1014	0	20.8	0
PG-13	2 inches above ground surface	1016	0	20.8	0
PG-14	2 inches above ground surface	1015	0	20.8	0
PS-01	at spinner (4 ft above pavement)	0926	0	20.8	0
PS-02	at spinner (4 ft above pavement)	0927	100	18.6	0
PS-03	at spinner (4 ft above pavement)	0929	5	20.8	0
PS-04	at spinner (4 ft above pavement)	0931	0	20.8	0
PS-05	at spinner (4 ft above pavement)	0932	0	20.8	0
PS-06	at spinner (4 ft above pavement)	0933	0	20.8	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 2/18/14 Barometric Pressure: 30.09" Temperature: 57° F

Weather conditions: Mostly Sunny Wind Direction: SE Wind Speed: 7 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1548 Calibration method and date: Pentane gas 1/22/14

February Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1421	0	20.8	0
HP-02	2 inches above expansion joint*	1422	0	20.8	0
HP-03	2 inches above expansion joint*	1423	0	20.8	0
HP-04	2 inches above expansion joint*	1418	0	20.8	0
HP-05	2 inches above expansion joint*	1419	0	20.8	0
HP-06	2 inches above expansion joint*	1419	0	20.8	0
HP-07	2 inches above expansion joint*	1414	0	20.8	0
HP-08	2 inches above expansion joint*	1415	0	20.8	0
HP-09	2 inches above expansion joint*	1416	0	20.8	0
HP-10	2 inches above expansion joint*	1411	0	20.8	0
HP-11	2 inches above expansion joint*	1412	0	20.8	0
HP-12	2 inches above expansion joint*	1412	0	20.8	0
HP-13	2 inches above expansion joint*	1407	0	20.8	0
HP-14	2 inches above expansion joint*	1408	0	20.8	0
HP-15	2 inches above expansion joint*	1409	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1424	0	20.8	0
TD-02	4 inches below trench grate	1425	0	20.8	0
TD-03	4 inches below trench grate	1421	0	20.8	0
TD-04	4 inches below trench grate	1420	0	20.8	0
TD-05	4 inches below trench grate	1417	0	20.8	0
TD-06	4 inches below trench grate	1416	0	20.8	0
TD-07	4 inches below trench grate	1413	0	20.8	0
TD-08	4 inches below trench grate	1412	0	20.8	0
TD-09	4 inches below trench grate	1411	0	20.8	0
TD-10	4 inches below trench grate	1410	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1449	0	20.8	0
DC-02	4 inches below grate	1448	0	20.8	0
DC-03	4 inches below grate	1447	0	20.8	0
DC-04	4 inches below grate	1446	0	20.8	0
DC-05	4 inches below grate	1445	0	20.8	0
DC-06	4 inches below grate	1444	0	20.8	0
DC-07	4 inches below grate	1443	0	20.8	0
DC-08	4 inches below manhole lid	1436	0	20.8	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1426	0	20.8	0
PG-02	2 inches above ground surface	1427	0	20.8	0
PG-03	2 inches above ground surface	1428	0	20.8	0
PG-04	2 inches above ground surface	1428	0	20.8	0
PG-05	2 inches above ground surface	1429	0	20.8	0
PG-06	2 inches above ground surface	1430	0	20.8	0
PG-07	2 inches above ground surface	1431	0	20.8	0
PG-08	2 inches above ground surface	1432	0	20.8	0

PG-09	2 inches above ground surface	1432	0	20.8	0
PG-10	2 inches above ground surface	1440	0	20.8	0
PG-11	2 inches above ground surface	1439	0	20.8	0
PG-12	2 inches above ground surface	1433	0	20.8	0
PG-13	2 inches above ground surface	1438	0	20.8	0
PG-14	2 inches above ground surface	1434	0	20.8	0
PS-01	at spinner (4 ft above pavement)	1348	0	20.8	0
PS-02	at spinner (4 ft above pavement)	1349	100	18.7	0
PS-03	at spinner (4 ft above pavement)	1352	100	18.8	0
PS-04	at spinner (4 ft above pavement)	1355	26	19.5	0
PS-05	at spinner (4 ft above pavement)	1357	100	11.3	0
PS-06	at spinner (4 ft above pavement)	1400	100	19.9	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.

LANDFILL GAS MONITORING FORM

Landfill Name: Airport Landfill, SWMU 73-001(a) at the Los Alamos County Airport

Inspector Printed Name: Derek Faulk Inspector Signature: _____

Date: 2/26/14 Barometric Pressure: 30.10 " Temperature: 36° F

Weather conditions: Mostly Sunny Wind Direction: E Wind Speed: 3 mph

Date and amount of last precipitation (within last 48 hours): 0.00"

Instrument: MSA Altair 5X #1307 Calibration method and date: Pentane gas 2/24/14

February Weekly Monitoring

Sample Location	Height (ft)	Time	CH ₄ % LEL	O ₂ %	CO %
Hangar Pads: Samples will be collected on the east side of the pad along the expansion joint.* After a hangar is built, samples will be collected along the interior walls at 4 inches to 4 ft above pad.					
HP-01	2 inches above expansion joint*	1133	0	20.8	0
HP-02	2 inches above expansion joint*	1134	0	20.8	0
HP-03	2 inches above expansion joint*	1134	0	20.8	0
HP-04	2 inches above expansion joint*	1130	0	20.8	0
HP-05	2 inches above expansion joint*	1130	0	20.8	0
HP-06	2 inches above expansion joint*	1131	0	20.8	0
HP-07	2 inches above expansion joint*	1126	0	20.8	0
HP-08	2 inches above expansion joint*	1126	0	20.8	0
HP-09	2 inches above expansion joint*	1127	0	20.8	0
HP-10	2 inches above expansion joint*	1124	0	20.8	0
HP-11	2 inches above expansion joint*	1124	0	20.8	0
HP-12	2 inches above expansion joint*	1125	0	20.8	0
HP-13	2 inches above expansion joint*	1120	0	20.8	0
HP-14	2 inches above expansion joint*	1121	0	20.8	0
HP-15	2 inches above expansion joint*	1122	0	20.8	0

Trench drains (west side of each hangar pad)					
TD-01	4 inches below trench grate	1136	0	20.8	0
TD-02	4 inches below trench grate	1135	0	20.8	0
TD-03	4 inches below trench grate	1132	0	20.8	0
TD-04	4 inches below trench grate	1131	0	20.8	0
TD-05	4 inches below trench grate	1128	0	20.8	0
TD-06	4 inches below trench grate	1127	0	20.8	0
TD-07	4 inches below trench grate	1126	0	20.8	0
TD-08	4 inches below trench grate	1125	0	20.8	0
TD-09	4 inches below trench grate	1123	0	20.8	0
TD-10	4 inches below trench grate	1122	0	20.8	0
Drainage culverts (drainage inlets on the buried storm sewer lines)					
DC-01	4 inches below grate	1137	0	20.80	0
DC-02	4 inches below grate	1138	7	20.8	0
DC-03	4 inches below grate	1138	4	20.8	0
DC-04	4 inches below grate	1139	5	20.8	0
DC-05	4 inches below grate	1140	0	20.8	0
DC-06	4 inches below grate	1141	0	20.8	0
DC-07	4 inches below grate	1142	10	20.8	0
DC-08	4 inches below manhole lid	1147	0	20.8	0
Northern perimeter (ground and spinner [wind turbine] locations)					
PG-01	2 inches above ground surface	1229	0	20.8	0
PG-02	2 inches above ground surface	1228	0	20.8	0
PG-03	2 inches above ground surface	1227	0	20.8	0
PG-04	2 inches above ground surface	1226	0	20.8	0
PG-05	2 inches above ground surface	1225	0	20.8	0
PG-06	2 inches above ground surface	1150	0	20.8	0
PG-07	2 inches above ground surface	1149	0	20.8	0
PG-08	2 inches above ground surface	1149	0	20.8	0

PG-09	2 inches above ground surface	1148	0	20.8	0
PG-10	2 inches above ground surface	1151	0	20.8	0
PG-11	2 inches above ground surface	1151	0	20.8	0
PG-12	2 inches above ground surface	1148	0	20.8	0
PG-13	2 inches above ground surface	1152	0	20.8	0
PG-14	2 inches above ground surface	1147	0	20.8	0
PS-01	at spinner (4 ft above pavement)	1109	0	20.8	0
PS-02	at spinner (4 ft above pavement)	1110	100	15.8	0
PS-03	at spinner (4 ft above pavement)	1113	100	17.9	0
PS-04	at spinner (4 ft above pavement)	1114		20.8	0
PS-05	at spinner (4 ft above pavement)	1117	91	19.1	0
PS-06	at spinner (4 ft above pavement)	1119	100	20.3	0

Note:

Methane concentrations shall be measured in percent of the LEL. Other gases measured in %.

DC = Drainage Culvert (inlet)

HP = Hangar Pad

LEL = lower explosive limit

PG = Perimeter Ground

PS = Perimeter Spinner (wind turbine)

TD = Trench Drain

Methane = CH₄

Oxygen = O₂

Carbon dioxide = CO₂

Comments:

Form modified from <http://www.nmenv.state.nm.us/swb/documents/ExampleMethaneFORM10-10-08.doc>.