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Date: December 5, 2008
Refer To: EP2008-0621

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Request for Extension to Complete the Material Disposal Area C Phase II Investigation Report

Dear Mr. Bearzi:

Los Alamos National Laboratory's (the Laboratory's) Environmental Programs Directorate is requesting an extension for the delivery date associated with the Material Disposal Area (MDA) C Phase II investigation report. A vapor-monitoring pilot study conducted at MDA C identified technical problems associated with installing Flexible Liner Underground Technology (FLUTe) systems. Several of the sand-filled FLUTe systems failed after installation was completed, as discussed in the June 6, 2008, letter to the New Mexico Environment Department (NMED). To avoid similar problems with the 10 remaining Phase II boreholes at MDA C, stainless-steel vapor-monitoring systems will be installed. The time required to install a stainless-steel system is significantly greater than to install a FLUTe system; however, the stainless-steel system is less likely to fail after installation.

The approved Phase II work plan included the scope to install vapor-monitoring systems in a total of 14 boreholes at MDA C. During the pilot study, 4 of the 14 boreholes were completed with FLUTe systems. One additional borehole, located next to a FLUTe system, was installed with a stainless-steel system. The analytical data collected from the two monitoring systems were compared and were found not to be significantly different. In the September 10, 2008, letter, NMED agreed with the conclusions of the pilot study that either system is appropriate to use as vapor-monitoring systems at MDA C. Since installation of the FLUTe systems has been problematic, stainless-steel systems were selected for the remaining 10 boreholes at MDA C.

The stainless-steel systems have a series of individual tubes that are installed at preselected depth intervals. Typically, in a 450-ft borehole approximately eight intervals or eight individual tubes are installed. Each individual tube has a screen at the end that is installed in a 5- to 8-ft layer of sand. Bentonite is placed above and below each sand layer to ensure no cross-contamination occurs and to constrain the size of the vapor-sampling interval. The bentonite layers above and below the sand layer take approximately 4 hours each to hydrate and set. The intervals between the bentonite seals are also filled with bentonite and additional time for hydration is required. Installing the FLUTe

system is much quicker and consists of lowering the FLUTe membrane with installed sampling ports into a borehole and filling it with sand. At MDA C, a 450-ft FLUTe system took approximately 5 work days to install.

The schedule in the Phase II work plan assumed it would take 5 work days to install each FLUTe systems in the 14 boreholes. Since stainless-steel systems will be installed in the remaining 10 boreholes, additional time for installation is required. Currently, 3 of the 10 boreholes have been installed with stainless-steel systems. It is taking approximately 12 to 15 work days to install each stainless-steel system. The difference in the number of days is primarily the result of the total borehole depth and, therefore, the different number of ports in each borehole. Based on the most recent installations, it is anticipated the remaining boreholes will take approximately13 work days each to install. This is an increase of 8 work days per installation from the 5 work days assumed in the original schedule. Therefore, an additional 80 work days are required to install the 10 stainless-steel systems. Currently, the due date for the Phase II investigation report is January 21, 2009. The Laboratory requests an extension for the delivery of the report to May 7, 2009. A detailed schedule to complete the Phase II investigation activities is attached.

If you have any questions, please contact Kent Rich at (505) 665-4272 (krich@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (crodriguez2@doeal.gov).

Sincerely,

Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

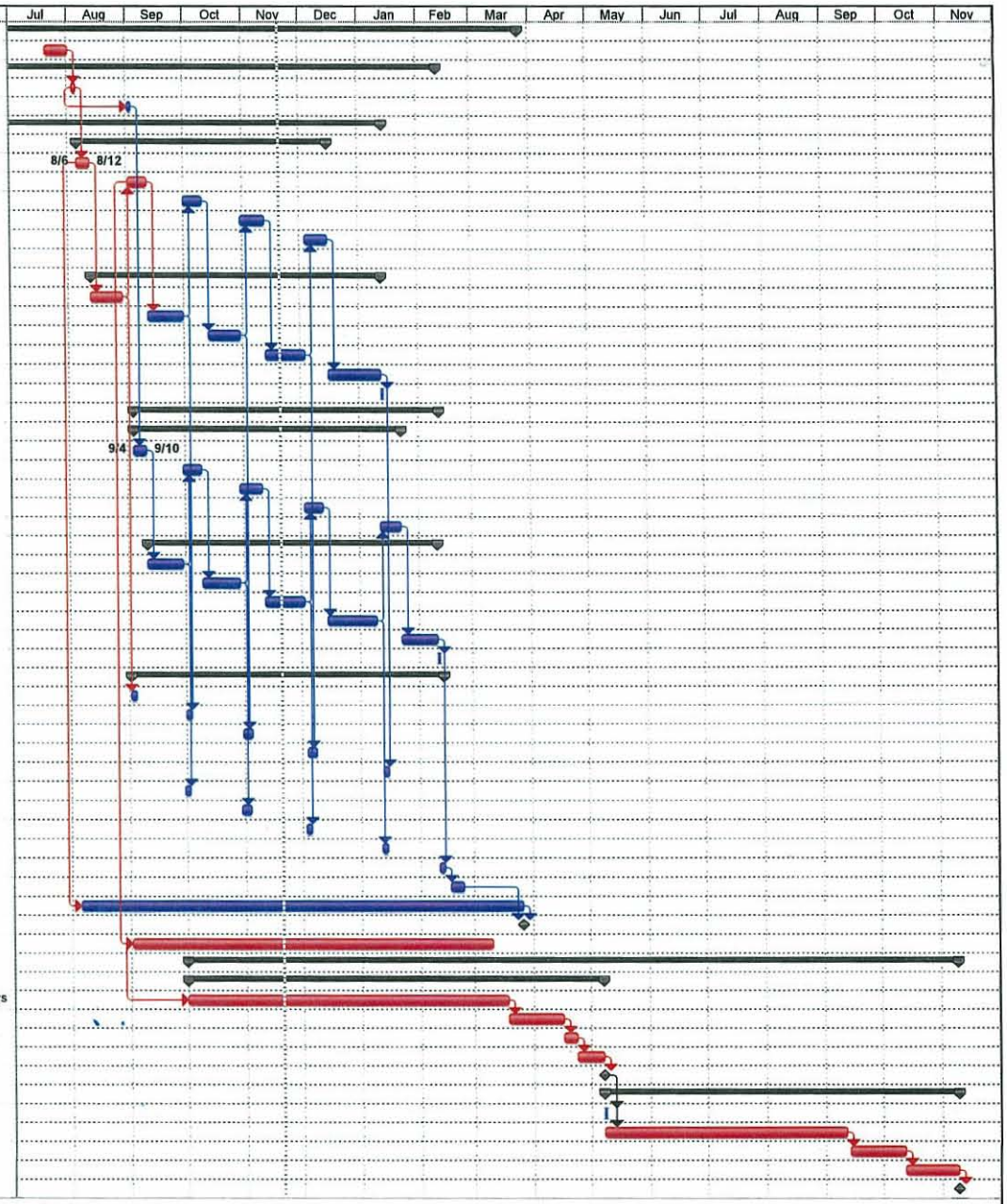
David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

MG/DG/DM/KR:sm

Attachment: 1) Revised schedule to complete the Phase II investigation activities at MDA C

Cy: (w/enc.)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-OB, White Rock, NM
Tom Skibitski, NMED-OB, Santa Fe, NM
Alison Bennett, DOE-LASO (date-stamped letter emailed)
Cheryl Rodriguez, DOE-LASO, MS A316
Joe Sena, LATA
Kent Rich, EP-CAP, MS M992
Dave McInroy, EP-CAP, MS M992
Michael J. Graham, ADEP, MS M991
Alison M. Dorries, EP-WES, MS M992
Kristine Smeltz, EP-WES, MS M992
EP-CAP File, MS M992
RPF, MS M707
IRM-RMMSO, MS A150

ID	Task Name	Duration	Start	Finish	Predecessors
1	**MDA C Phase II Field Work**	**415 days**	**Jul 16 '07**	**Mar 26 '09**	
2	Prepare and Conduct Readiness	10 days	Jul 21 '08	Aug 1 '08	
3	**Drill Boreholes**	**385 days**	**Jul 16 '07**	**Feb 11 '09**	
4	Mobilize Air-Rotary Rig 1	2 days	Aug 4 '08	Aug 5 '08	2
5	Mobilize Air-Rotary Rig 2	2 days	Sep 2 '08	Sep 3 '08	4SS+20 days
6	**Air-Rotary Rig 1**	**365 days**	**Jul 16 '07**	**Jan 13 '09**	
7	**Drill (0-450 ft)**	**89 days**	**Aug 6 '08**	**Dec 15 '08**	
8	50-A (adjacent)	5 days	Aug 6 '08	Aug 12 '08	4
9	50-24822	8 days	Sep 2 '08	Sep 11 '08	15
10	50-C	8 days	Oct 1 '08	Oct 10 '08	16
11	50-E	8 days	Oct 31 '08	Nov 12 '08	17
12	50-24783	8 days	Dec 4 '08	Dec 15 '08	18
13	Manufacture FLUTe System	8 days	Jul 16 '07	Jul 25 '07	
14	**Install Stainless-Steel System**	**97 days**	**Aug 13 '08**	**Jan 12 '09**	
15	50-A	13 days	Aug 13 '08	Aug 29 '08	8
16	50-24822	13 days	Sep 12 '08	Sep 30 '08	9
17	50-C	13 days	Oct 14 '08	Oct 30 '08	10
18	50-E	13 days	Nov 13 '08	Dec 3 '08	11
19	50-24783	13 days	Dec 16 '08	Jan 12 '09	12
20	Demobilize Air-Rotary Rig 1	1 day	Jan 13 '09	Jan 13 '09	19
21	**Air-Rotary Rig 2**	**103 days**	**Sep 4 '08**	**Feb 11 '09**	
22	**Drill (0-450 ft)**	**89 days**	**Sep 4 '08**	**Jan 22 '09**	
23	50-D (adjacent)	5 days	Sep 4 '08	Sep 10 '08	5
24	50-B	8 days	Sep 30 '08	Oct 9 '08	29
25	50-24769	8 days	Oct 30 '08	Nov 10 '08	30
26	50-24813	8 days	Dec 3 '08	Dec 12 '08	31
27	50-24784	8 days	Jan 12 '09	Jan 22 '09	32
28	**Install Stainless-Steel System**	**97 days**	**Sep 11 '08**	**Feb 10 '09**	
29	50-D	13 days	Sep 11 '08	Sep 29 '08	23
30	50-B	13 days	Oct 10 '08	Oct 29 '08	24
31	50-24769	13 days	Nov 12 '08	Dec 2 '08	25
32	50-24813	13 days	Dec 15 '08	Jan 9 '09	26
33	50-24784	13 days	Jan 23 '09	Feb 10 '09	27
34	Demobilize Air-Rotary Rig 2	1 day	Feb 11 '09	Feb 11 '09	33
35	**Collect Pore-Gas Samples**	**107 days**	**Sep 2 '08**	**Feb 13 '09**	
36	50-A	3 days	Sep 2 '08	Sep 4 '08	15
37	50-24822	3 days	Oct 1 '08	Oct 3 '08	16
38	50-C	3 days	Oct 31 '08	Nov 4 '08	17
39	50-E	3 days	Dec 4 '08	Dec 8 '08	18
40	50-24783	3 days	Jan 13 '09	Jan 15 '09	19
41	50-D	3 days	Sep 30 '08	Oct 2 '08	29
42	50-B	3 days	Oct 30 '08	Nov 3 '08	30
43	50-24769	3 days	Dec 3 '08	Dec 5 '08	31
44	50-24813	3 days	Jan 12 '09	Jan 14 '09	32
45	50-24784	3 days	Feb 11 '09	Feb 13 '09	33
46	**Site Restoration**	**5 days**	**Feb 17 '09**	**Feb 23 '09**	**45**
47	**Waste Management**	**153 days**	**Aug 6 '08**	**Mar 26 '09**	**8SS**
48	**Field Activities Completed**	**0 days**	**Mar 26 '09**	**Mar 26 '09**	**46,47**
49	**Lab Analysis of Samples**	**123 days**	**Sep 2 '08**	**Mar 10 '09**	**9SS**
50	**MDA C Phase II Investigation Report**	**275 days**	**Oct 1 '08**	**Nov 9 '09**	
51	**Prepare Phase II Investigation Report**	**144 days**	**Oct 1 '08**	**May 7 '09**	
52	Data Analysis and Assessment	108 days	Oct 1 '08	Mar 18 '09	49SS+21 days
53	Prepare Draft Report	21 days	Mar 19 '09	Apr 16 '09	52
54	Peer Review Draft Report	5 days	Apr 17 '09	Apr 23 '09	53
55	Incorporate Peer Review Comments	10 days	Apr 24 '09	May 7 '09	54
56	**Submit Phase II Investigation Report to AA**	**0 days**	**May 7 '09**	**May 7 '09**	**55**
57	**AA Review**	**131 days**	**May 8 '09**	**Nov 9 '09**	
58	AA Administrative Acceptance Fee	1 day	May 8 '09	May 8 '09	56
59	AA Review Phase II Investigation Report	90 days	May 8 '09	Sep 11 '09	56
60	Response to AA and Finalize IR	21 days	Sep 14 '09	Oct 12 '09	59
61	AA Reviews NOD Response	20 days	Oct 13 '09	Nov 9 '09	60
62	**AA Final Approval of IR**	0 days	Nov 9 '09	Nov 9 '09	61



Project: MDA C Phase II Activities
Date: Nov 20 '08

Task | Milestone | Rolled Up Critical Task | Split | Group By SummTask
Critical Task | Summary | Rolled Up Milestone | External Tasks | Critical Task
Progress | Rolled Up Task | Rolled Up Progress | Project Summary