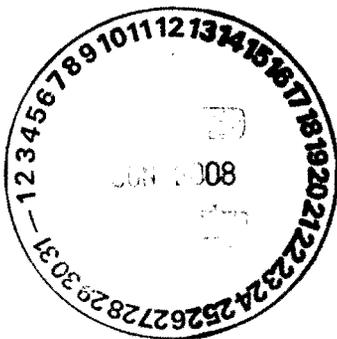


**Environmental Programs**  
P.O. Box 1663, MS M991  
Los Alamos, New Mexico 87545  
(505) 606-2337/FAX (505) 665-1812



REGISTERED



**National Nuclear Security Administration**  
Los Alamos Site Office, MS A316  
Environmental Restoration Program  
Los Alamos, New Mexico 87544  
(505) 667-4255/FAX (505) 606-2132

*Date:* June 6, 2008  
*Refer To:* EP2008-0297

Mr. James Bearzi  
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 Pilot Test and 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 dates associated with the Material Disposal Area (MDA) C pilot study report and the Phase II investigation report. Technical problems encountered while installing vapor monitoring FLUTE systems at MDA C impacted the pilot study schedule by 15 drilling days or three calendar weeks. Borehole 50-24820 had to be redrilled to 600 ft and another FLUTE system was installed, which took 10 days. Borehole 50-24817 was also redrilled and a FLUTE system installed and took 6 days. In addition, a 300-ft borehole will be drilled at MDA C and a FLUTE system installed as part of the MDA G pilot study. This installation will take an additional 5 days. The current submittal date for the pilot study report is June 25, 2008. The Los Alamos National Laboratory (the Laboratory) requests a 4-week extension to submit the pilot study report and proposes a revised due date of July 25, 2008. In support of this request, a detailed description of the technical problems and equipment failure encountered by the Laboratory are captured in the following text.

After the first FLUTE was installed in borehole 50-24820 and while vapor samples were being collected for the pilot study, the FLUTE system dropped approximately 9 ft down the borehole and could not be recovered. An evaluation was immediately conducted to determine the cause for the FLUTE system failure. After discussions with the FLUTE technician who assisted with the installation, it was determined that the sand within the FLUTE system had either settled or had moved into a possible void space created in the top 300 ft of the borehole after an existing auger borehole was drilled. Although the void space was filled with sand during the installation of the FLUTE, additional settling of sand in the void space may have pulled the FLUTE system down the borehole.

The primary technical issue identified with overdrilling an existing auger borehole is that there is no way to guarantee the air-rotary drill rig will follow the auger borehole exactly. Any deviation from the auger borehole will produce a void space. To avoid a recurrence of this problem at borehole



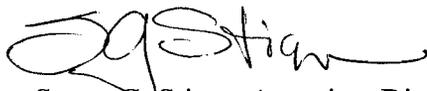
50-24820, a separate air-rotary borehole was drilled to 600 ft, and another FLUTE system was installed. Unfortunately, the day after the second FLUTE system was installed, the sand again settled and pulled the FLUTE system down by approximately 10 ft. However, the on-site FLUTE technician conducted a system test and confirmed that all but 2 of the 20 sampling ports were usable. Therefore, vapor samples could be collected from the intervals specified in the pilot study work plan.

Before borehole 50-24820 was redrilled and the second FLUTE system installed, a second borehole next to borehole 50-24817 was drilled using an air-rotary rig. A 450-ft FLUTE system was successfully installed at this location, and vapor samples were collected. After the system was successfully installed, the Laboratory assumed that drilling a separate borehole with an air-rotary drill rig would minimize the FLUTE installation problems encountered at borehole 50-24820. This, however, was not the case because sand settling problems occurred again at the second 600-ft-deep borehole. Subsequently, the manufacturer recommended using coarser, well-rounded sand in future FLUTE installations to minimize the potential for the sand to spontaneously settle in boreholes greater than 450 ft.

The results from the MDA C pilot study will be used to complete the Phase II investigation activities. At the New Mexico Environment Department's (NMED's) direction, the Phase II investigation activities have been suspended until the pilot study results become available. As a result of this suspension, the Phase II investigation report will not be completed by the current work plan approval date of June 30, 2008. A total of 4 of 14 Phase II boreholes will be completed as part of the pilot study. A detailed schedule to complete the remaining 10 boreholes is attached. The proposed schedule assumes FLUTE will be selected as the appropriate monitoring system for collecting vapor samples. If a different monitoring system is selected, the schedule may need to be modified. Based on the proposed schedule, Phase II drilling activities will restart on August 4, 2008, 1 week after the pilot study report is submitted to NMED. The Laboratory requests a revised due date of January 21, 2009, to submit the MDA C Phase II investigation report.

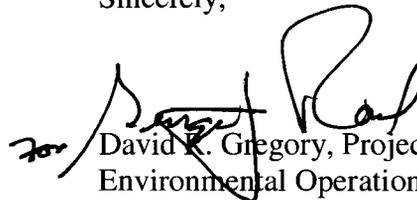
If you have any questions, please contact Kent Rich at (505) 665-4272 (krich@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (crodriguez2@doeal.gov).

Sincerely,



Susan G. Stiger, Associate Director  
Environmental Programs  
Los Alamos National Laboratory

Sincerely,



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

SS/DG/DM/KR:sm

Attachment: 1) Proposed 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  
Susan G. Stiger, ADEP, MS M991  
Dave McInroy, EP-CAP, MS M992  
Alison M. Dorries, EP-WES, MS M992  
Peggy Reneau, EP-WES, MS M992  
RPF, MS M707  
EP-CAP File, MS M992  
IRM-RMMSO, MS A150

6	<b>Air-Rotary Rig 1</b>	<b>61 days</b>	<b>Aug 6 '08</b>	<b>Oct 31 '08</b>	
7	<b>Drill (0-450 ft)</b>	<b>55 days</b>	<b>Aug 6 '08</b>	<b>Oct 23 '08</b>	
8	50-A (adjacent)	5 days	Aug 6 '08	Aug 12 '08	4
9	50-24822	8 days	Aug 18 '08	Aug 27 '08	19
10	50-C	8 days	Sep 5 '08	Sep 16 '08	20
11	50-E	8 days	Sep 24 '08	Oct 3 '08	21
12	50-24783	8 days	Oct 14 '08	Oct 23 '08	22
13	<b>Manufacture FLUTE System</b>	<b>41 days</b>	<b>Aug 28 '08</b>	<b>Oct 27 '08</b>	
14	50-24822	2 days	Aug 28 '08	Aug 29 '08	9
15	50-C	2 days	Sep 17 '08	Sep 18 '08	10
16	50-E	2 days	Oct 6 '08	Oct 7 '08	11
17	50-24783	2 days	Oct 24 '08	Oct 27 '08	12
18	<b>Install FLUTE System</b>	<b>55 days</b>	<b>Aug 13 '08</b>	<b>Oct 30 '08</b>	
19	50-A	3 days	Aug 13 '08	Aug 15 '08	8
20	50-24822	3 days	Sep 2 '08	Sep 4 '08	14
21	50-C	3 days	Sep 19 '08	Sep 23 '08	15
22	50-E	3 days	Oct 8 '08	Oct 10 '08	16
23	50-24783	3 days	Oct 28 '08	Oct 30 '08	17
24	Demobilize Air-Rotary Rig 1	1 day	Oct 31 '08	Oct 31 '08	23
25	<b>Air-Rotary Rig 2</b>	<b>61 days</b>	<b>Aug 6 '08</b>	<b>Oct 31 '08</b>	
26	<b>Drill (0-450 ft)</b>	<b>55 days</b>	<b>Aug 6 '08</b>	<b>Oct 23 '08</b>	
27	50-D (adjacent)	5 days	Aug 6 '08	Aug 12 '08	5
28	50-B	8 days	Aug 18 '08	Aug 27 '08	38
29	50-24769	8 days	Sep 5 '08	Sep 16 '08	39
30	50-24813	8 days	Sep 24 '08	Oct 3 '08	40
31	50-24784	8 days	Oct 14 '08	Oct 23 '08	41
32	<b>Manufacture FLUTE System</b>	<b>41 days</b>	<b>Aug 28 '08</b>	<b>Oct 27 '08</b>	
33	50-B	2 days	Aug 28 '08	Aug 29 '08	28
34	50-24769	2 days	Sep 17 '08	Sep 18 '08	29
35	50-24813	2 days	Oct 6 '08	Oct 7 '08	30
36	50-24784	2 days	Oct 24 '08	Oct 27 '08	31
37	<b>Install FLUTE System</b>	<b>55 days</b>	<b>Aug 13 '08</b>	<b>Oct 30 '08</b>	
38	50-D	3 days	Aug 13 '08	Aug 15 '08	27
39	50-B	3 days	Sep 2 '08	Sep 4 '08	33
40	50-24769	3 days	Sep 19 '08	Sep 23 '08	34
41	50-24813	3 days	Oct 8 '08	Oct 10 '08	35
42	50-24784	3 days	Oct 28 '08	Oct 30 '08	36
43	Demobilize Air-Rotary Rig 2	1 day	Oct 31 '08	Oct 31 '08	42
44	<b>Collect Pore-Gas Samples</b>	<b>55 days</b>	<b>Aug 18 '08</b>	<b>Nov 4 '08</b>	
45	50-A	3 days	Aug 18 '08	Aug 20 '08	19
46	50-24822	3 days	Sep 5 '08	Sep 9 '08	20
47	50-C	3 days	Sep 24 '08	Sep 26 '08	21
48	50-E	3 days	Oct 14 '08	Oct 16 '08	22
49	50-24783	3 days	Oct 31 '08	Nov 4 '08	23
50	50-D	3 days	Aug 18 '08	Aug 20 '08	38
51	50-B	3 days	Sep 5 '08	Sep 9 '08	39
52	50-24769	3 days	Sep 24 '08	Sep 26 '08	40
53	50-24813	3 days	Oct 14 '08	Oct 16 '08	41
54	50-24784	3 days	Oct 31 '08	Nov 4 '08	42
55	<b>Site Restoration</b>	<b>5 days</b>	<b>Nov 5 '08</b>	<b>Nov 12 '08</b>	<b>54</b>
56	<b>Waste Management</b>	<b>91 days</b>	<b>Aug 6 '08</b>	<b>Dec 17 '08</b>	<b>8SS</b>
57	<b>Field Activities Completed</b>	<b>0 days</b>	<b>Dec 17 '08</b>	<b>Dec 17 '08</b>	<b>55,56</b>
58	<b>Lab Analysis of Samples</b>	<b>70 days</b>	<b>Aug 18 '08</b>	<b>Nov 26 '08</b>	<b>9SS</b>
59	<b>MDA C Phase II Investigation Report</b>	<b>164 days</b>	<b>Sep 17 '08</b>	<b>May 21 '09</b>	
60	<b>Prepare Phase II Investigation Report</b>	<b>79 days</b>	<b>Sep 17 '08</b>	<b>Jan 21 '09</b>	
61	Data Analysis and Assessment	54 days	Sep 17 '08	Dec 5 '08	58SS+21 days
62	Prepare Draft Report	15 days	Dec 8 '08	Jan 6 '09	61
63	Peer Review Draft Report	5 days	Jan 7 '09	Jan 13 '09	62
64	Incorporate Peer Review Comments	5 days	Jan 14 '09	Jan 21 '09	63
65	<b>Submit Phase II Investigation Report to AA</b>	<b>0 days</b>	<b>Jan 21 '09</b>	<b>Jan 21 '09</b>	<b>64</b>
66	<b>AA Review</b>	<b>85 days</b>	<b>Jan 22 '09</b>	<b>May 21 '09</b>	
67	AA Administrative Acceptance Fee	1 day	Jan 22 '09	Jan 22 '09	65
68	AA Review Phase II Investigation Report	45 days	Jan 22 '09	Mar 26 '09	65
69	RSI Response to AA	20 days	Mar 27 '09	Apr 23 '09	68
70	Finalize Phase II Investigation Report	20 days	Apr 24 '09	May 21 '09	69
71	<b>Submit Final Phase II Investigation Report</b>	<b>0 days</b>	<b>May 21 '09</b>	<b>May 21 '09</b>	<b>70</b>

