

IV.D.3. Ongoing Disposal Room VOC Monitoring in Panel 3 Through 7

The Permittees shall continue VOC monitoring in Room 1 of Panels 3 through 7 after completion of waste emplacement until final panel closure unless the isolation wall is installed in any of these panels.

IV.F.4 Mine Ventilation Rate Monitoring

IV.F.4.b Reporting requirements - the Permittees shall report to the Secretary annually, beginning twelve (12) months after issuance of this Permit, the results of the data and analysis of the Mine Ventilation Rate Monitoring Plan. Also included in this report will be an annual certification by a registered professional engineer certifying the stability of the isolation walls in Panels 1 and 2.

IV.F.5 Hydrogen and Methane Monitoring Program

Implementation of the Hydrogen and Methane Monitoring - the Permittees shall implement the Hydrogen and Methane Monitoring specified in Permit Attachment N.

Notification requirements - the Permittees shall notify the Secretary in writing, within five (5) working days of obtaining validated analytical results, whenever the concentration of hydrogen or methane in a filled panel exceeds the action levels specified in Table IV.F.5.a below.

Table IV.F.5.a - Action Levels for Hydrogen and Methane Monitoring		
<u>Compound</u>	<u>Action Level for Hydrogen and Methane at 10% of the Lower Explosive Limit (see note)</u>	<u>Action Level for Hydrogen and Methane at 20% of the Lower Explosive Limit (see note)</u>
<u>Hydrogen</u>	<u>0.4%</u>	<u>0.8%</u>
<u>Methane</u>	<u>0.5%</u>	<u>1.0%</u>

1 The Permittees will also notify the e-mail notification list if the Action
2 Levels are exceeded.

3
4
5
6 NOTE - The LEL for methane and hydrogen are 5% and 4% respectively. The Action
7 Levels will be set based on the composite LEL computed as follows:

8
9
10
11
12
$$\frac{P_t}{L_t} = \frac{P_m}{L_m} + \frac{P_h}{L_h}$$

13
14
15 Where P_t, P_m, P_h are the percentage concentrations of the total (mixture) flammable
16 gases, methane, and hydrogen, respectively and L_t, L_m, L_h are the LELs for the total
17 (mixture), methane, and hydrogen respectively.

18
19 Remedial action - upon receiving validated analytical results that indicate that hydrogen
20 or methane has reached the "10% Action Level" for 3 consecutive months in a filled
21 panel as specified in Table IV.F.5.a, the sampling frequency for such filled panels will
22 increase to once per week. The once per week sampling will continue until the
23 concentrations in the filled panel(s) fall below the "10% Action Level" in Table IV.F.5.a. If
24 hydrogen or methane in a filled panel reaches the "20% Action Level" in Table IV.F.5.a,
25 another sample will be taken to confirm the existence of such a condition. If the second
26 sample confirms those results the 12-foot isolation wall in Permit Attachment I will be
27 installed in the panel.

28
29 Any loss of sampling lines will be evaluated as described in Section N-7d(2), and
30 notifications submitted to the Secretary and to the e-mail notification list within 14
31 calendar days of the discovery of loss of sampling line(s).

**TABLE D-1
INSPECTION SCHEDULE/PROCEDURES**

System/Equipment Name	Responsible Organization	Inspection ^a Frequency and Job Title of Personnel Normally Making Inspection	Procedure Number and Inspection Criteria
Air Intake Shaft Hoist	Underground Operations	Preoperational ^c See Lists 1b and c	WP 04-HO1004 Inspecting for Deterioration ^b , Safety Equipment, Communication Systems, and Mechanical Operability ^m in accordance with Mine Safety and Health Administration (MSHA) requirements
Ambulances (Surface and Underground) and related emergency supplies and equipment	Emergency Services	Weekly See List 11	PM000030 Inspecting for Mechanical Operability ^m , Deterioration ^b , and Required Equipment ⁿ
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational See List 8	WP 05-WH1410 Inspecting for Mechanical Operability ^m and Deterioration ^b
Backup Power Supply Diesel Generators	Facility Operations	Monthly See List 3	WP 04-ED1301 Inspecting for Mechanical Operability ^m and Leaks/Spills by starting and operating both generators. Results of this inspection are logged in accordance with WP 04-AD3008.
Facility Inspections (Water Diversion Berms)	Facility Engineering	Annually See List 4	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration ^b
Central Monitoring Systems (CMS)	Facility Operations	Continuous See List 3	Automatic Self-Checking
Contact-Handled (CH) TRU Underground Transporter	Waste Handling	Preoperational See List 8	WP 05-WH1603 Inspecting for Mechanical Operability ^m , Deterioration ^b , and area around transporter clear of obstacles
Facility Transfer Vehicle	Waste Handling	Preoperational See List 8	WP 05-WH1406 Inspecting for Mechanical Operability ^m , Deterioration ^b , path clear of obstacles, and guards in the proper place
Exhaust Shaft	Underground Operations	Quarterly See List 1a	PM041099 Inspecting for Deterioration ^b and Leaks/Spills
Eye Wash and Shower Equipment	Equipment Custodian	Weekly See List 5	WP 12-IS1832 Inspecting for Deterioration ^b
		Semi-annually See List 2a	WP 12-IS1832 Inspecting for Deterioration ^b and Fluid Levels—Replace as Required
Fire Detection and Alarm System	Emergency Services	Semiannually See List 11	PM000027 Inspecting for Deterioration ^b , Operability of indicator lights and, underground fuel station dry chemical suppression system. Inspection is per NFPA 72

**TABLE D-1
INSPECTION SCHEDULE/PROCEDURES**

System/Equipment Name	Responsible Organization	Inspection ^a Frequency and Job Title of Personnel Normally Making Inspection	Procedure Number and Inspection Criteria
1 Fire Extinguishers'	Emergency Services	Monthly See List 11	PM000036 Inspecting for Deterioration ^b , Leaks/Spills, Expiration, seals, fullness, and pressure
2 Fire Hoses	Emergency Services	Annually (minimum) See List 11	PM000031 Inspecting for Deterioration ^b and Leaks/Spills
3 Fire Hydrants	Emergency Services	Semi-annual/ annually See List 11	PM000034 Inspecting for Deterioration ^b and Leaks/Spills
4 Fire Pumps	Emergency Services	Weekly/annually See List 11	PM000026 Inspecting for Deterioration ^b , Leaks/Spills, valves, and panel lights
5 Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly See List 11	PM000025 Inspecting for Deterioration ^b , Leaks/Spills, static pressures, and removable strainers
6 Fire and Emergency 7 Response Trucks 8 (Seagrave Fire Apparatus, 9 Emergency One 10 Apparatus, and 11 Underground Rescue 12 Truck)	Emergency Services	Weekly See List 11	PM000033 Inspecting for Mechanical Operability ^m , Deterioration ^b , Leaks/Spills, and Required Equipment ⁿ
13 Forklifts Used for Waste 14 Handling (Electric and 15 Diesel forklifts, Push-Pull 16 Attachment)	Waste Handling	Preoperational See List 8	WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Mechanical Operability ^m , Deterioration ^b , and On board fire suppression system
17 Hazardous Material 18 Response Equipment	Emergency Services	Weekly See List 11	PM000033 Inspecting for Mechanical Operability ^m , Deterioration ^b , and Required Equipment ⁿ
19 Miners First Aid Station	Emergency Services	Quarterly See List 11	PM000035 Inspecting for Required Equipment ⁿ
20 Mine Pager Phones 21 (between surface and 22 underground)	Facility Operations	Monthly See List 3	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations
23 MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily ⁱ See Lists 1 and 10	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check
24 Perimeter Fence, Gates, 25 Signs	Security	Daily See List 6	PF0-011 Inspecting for Deterioration ^b and Posted Warnings

**TABLE D-1
INSPECTION SCHEDULE/PROCEDURES**

System/Equipment Name	Responsible Organization	Inspection ^a Frequency and Job Title of Personnel Normally Making Inspection	Procedure Number and Inspection Criteria
Personal Protective Equipment (not otherwise contained in emergency vehicles or issued to individuals): —Self-Contained Breathing Apparatus	Emergency Services	Weekly See List 11	PM000029 Inspecting for Deterioration ^b and Pressure
Public Address (and Intercom System)	Facility Operations	Monthly See List 3	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode
Radio Equipment	Facility Operations	Daily ⁱ See List 3	Radios are operated daily and are repaired upon failure
Rescue Truck (Surface and Underground)	Emergency Services	Weekly See List 11	PM000030 and PM000033 Inspecting for Mechanical Operability ^m , Deterioration ^b , Leaks/Spills, and Required Equipment ⁿ
Salt Handling Shaft Hoist	Underground Operations	Preoperational See List 1b and c	WP 04-HO1002 Inspecting for Deterioration ^b , Safety Equipment, Communication Systems, and Mechanical Operability ^m in accordance with MSHA requirements
Self-Rescuers	Underground Operations	Quarterly See List 1c	WP 04-AU1026 Inspecting for Deterioration ^b and Functionality in accordance with MSHA requirements
Surface TRU Mixed Waste Handling Area ^k	Waste Handling	Preoperational or Weekly ^e See List 8	WP 05-WH1101 Inspecting for Deterioration ^b , Leaks/Spills, Required Aisle Space, Posted Warnings, Communication Systems, Container Condition, and Floor coating integrity
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually See List 8	WP 05-WH1101 Inspecting for Required Equipment ⁿ
Underground Openings— Roof Bolts and Travelways	Underground Operations	Weekly See List 1a	WP 04-AU1007 Inspecting for Deterioration ^b
Underground— Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly See List 9	WP 07-EU1301 Inspecting for Deterioration ^b
Underground TRU Mixed Waste Disposal Area	Waste Handling	Preoperational See List 8	WP 05-WH1810 Inspecting for Deterioration ^b , Leaks/Spills, mine pager phones, equipment, unobstructed access, signs, debris, and ventilation

**TABLE D-1
INSPECTION SCHEDULE/PROCEDURES**

System/Equipment Name	Responsible Organization	Inspection ^a Frequency and Job Title of Personnel Normally Making Inspection	Procedure Number and Inspection Criteria
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily See List 3	WP 04-ED1542 Inspecting for Mechanical Operability ^m and Deterioration ^b with no malfunction alarms. Results of this inspection are logged in accordance with WP 04-AD3008.
TDOP Upender	Waste Handling	Preoperational See List 8	WP 05-WH1010 Inspecting for Mechanical Operability ^m and Deterioration ^b
Vehicle Siren	Emergency Services	Weekly See List 11	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks
Ventilation Exhaust	Maintenance Operations	Quarterly See List 10	IC041098 Check for Deterioration ^b and Calibration of Mine Ventilation Rate Monitoring Equipment
Waste Handling Cranes	Waste Handling	Preoperational See List 8	WP 05-WH1407 Inspecting for Mechanical Operability ^m , Deterioration ^b , and Leaks/Spills
Waste Hoist	Underground Operations	Preoperational See List 1b and c	WP 04-HO1003 Inspecting for Deterioration ^b , Safety Equipment, Communication Systems, and Mechanical Operability ^m , Leaks/Spills, in accordance with MSHA requirements
Water Tank Level	Facility Operations	Daily See List 3	SDD-WD00 Inspecting for Deterioration ^b , and water levels. Results of this inspection are logged in accordance with WP 04-AD3008.
Push-Pull Attachment	Waste Handling	Preoperational See List 8	WP 05-WH1401 Inspecting for Damage and Deterioration ^b
Trailer Jockey	Waste Handling	Preoperational See List 8	WP 05-WH1405 Inspecting for Mechanical Operability ^m and Deterioration ^b

**TABLE D-1
INSPECTION SCHEDULE/PROCEDURES**

System/Equipment Name	Responsible Organization	Inspection ^a Frequency and Job Title of Personnel Normally Making Inspection	Procedure Number and Inspection Criteria
Facility Grapple	Waste Handling	Preoperational See List 8	To Be Determined (RH equipment)
15-Ton Bridge Crane	Waste Handling	Preoperational See List 8	To Be Determined (RH equipment)
Hook and Rope on 50/25-Ton Bridge Crane	Waste Handling	Preoperational See List 8	To Be Determined (RH equipment)
<u>Panel Isolation Walls</u>	<u>Underground Operations</u>	<u>Quarterly</u> <u>See List 1</u>	<u>Integrity and Deterioration^p of Accessible Areas</u>
<u>Monitoring Bulkhead in Filled Panels</u>	<u>Underground Operations</u>	<u>Monthly</u> <u>See List 1</u>	<u>Integrity and Deterioration^p of Accessible Areas</u>

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PRE-DECISIONAL DRAFT

**TABLE I-1
ANTICIPATED EARLIEST CLOSURE DATES FOR
THE UNDERGROUND HWDUs**

HWDU	OPERATIONS START	OPERATIONS END	CLOSURE START	CLOSURE END
PANEL 1	3/99	2/03	3/03	9/03 SEE NOTE 5
PANEL 2	3/03	6/05	7/05	1/06 SEE NOTE 5
PANEL 3	7/05	1/07	2/07	8/07 SEE NOTE 6
PANEL 4	1/07	1/09	2/09	8/09 <u>SEE NOTE 6</u>
PANEL 5	1/09	1/11	2/11	8/11 <u>SEE NOTE 6</u>
PANEL 6	1/11	1/13	2/13	8/13 <u>SEE NOTE 6</u>
PANEL 7	1/13	1/15	2/15	8/15 <u>SEE NOTE 6</u>
PANEL 8	1/15	1/17	2/17	8/17
PANEL 9	1/17	1/28	2/28	SEE NOTE 4
PANEL 10	1/28	9/30	10/30	SEE NOTE 4

NOTE 1: Only Panels 1 to 4 will be closed under the initial term of this permit. Closure schedules for Panels 5 through 10 are projected assuming new permits will be issued in 2009 and 2019.

NOTE 2: The point of closure start is defined as sixty (60) days following notification to the NMED of closure.

NOTE 3: The point of closure end is defined as one hundred eighty (180) days following placement of final waste in the panel.

NOTE 4: The time to close these areas may be extended depending on the nature and extent of the disturbed rock zone. The excavations that constitute these panels will have been opened for as many as forty (40) years so that the preparation for closure may take longer than the time allotted in Figure I-2. If this extension is needed, it will be requested as an amendment to the Closure Plan.

DRAFT
8-29-07

NOTE 5: The anticipated closure end date for Panels 1 and 2 is for installation of the 12-foot explosion isolation wall. Final closure of Panels 1 and 2 will be completed as specified in this Permit no later January 2016 ~~June 30, 2009~~.

NOTE 6: The anticipated closure end date for Panel 3 through 7 is for initially blocking ventilation through the closed panel. Final closure of Panel 3 through 7 will be completed as specified in this Permit no later than January 2016 ~~June 30, 2009~~.

ATTACHMENT N

VOLATILE ORGANIC COMPOUND MONITORING PLAN

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45 N-3a(3) Ongoing Disposal Room VOC Monitoring in Panels 3 through 7
46

1 The Permittees shall continue VOC monitoring in Room 1 of filled panels 3 through 7 ~~Panel 3~~
2 after completion of waste emplacement until final panel closure unless an isolation wall is
3 installed.

4
5
6 N-3c Sampling and Analysis Methods for VOC Monitoring

7
8 The VOC monitoring programs include a comprehensive VOC monitoring program established
9 at the facility; equipment, training, and documentation for VOC measurements are already in
10 place.

11
12 The method used for VOC sampling is based on the concept of pressurized sample collection
13 contained in the U.S. Environmental Protection Agency (EPA) Compendium Method TO-15
14 (EPA, 1999). The TO-15 sampling concept uses 6-liter SUMMA[®] passivated (or equivalent)
15 stainless-steel canisters to collect integrated air samples at each sample location. This
16 conceptual method will be used as a reference for collecting the samples at WIPP. The samples
17 will be analyzed using gas chromatography/mass spectrometry (GC/MS) under an established
18 QA/quality control (QC) program. Laboratory analytical procedures have been developed based
19 on the concepts contained in both TO-15 and 8260B. Section N-5 contains additional QA/QC
20 information for this project.

21
22 The TO-15 method is an EPA-recognized sampling concept for VOC sampling and speciation. It
23 can be used to provide integrated samples, or grab samples, and compound quantitation for a
24 broad range of concentrations. The sampling system can be operated unattended but requires
25 detailed operator training. This sampling technique is viable for use while analyzing the sample
26 using other EPA methods such as 8260B.

27
28 The field sampling systems will be operated in the pressurized mode. In this mode, air is drawn
29 through the inlet and sampling system with a pump. The air is pumped into an initially evacuated
30 SUMMA[®] passivated (or equivalent) canister by the sampler, which regulates the rate and
31 duration of sampling. The treatment of tubing and canisters used for VOC sampling effectively
32 seals the inner walls and prevents compounds from being retained on the surfaces of the
33 equipment. By the end of each sampling period, the canisters will be pressurized to about two
34 atmospheres absolute. In the event of shortened sampling periods or other sampling conditions,
35 the final pressure in the canister may be less than two atmospheres absolute. Sampling
36 duration will be approximately six hours, so that a complete sample can be collected during a
37 single work shift.

38
39 The canister sampling system and GC/MS analytical method are particularly appropriate for the
40 VOC Monitoring Programs because a relatively large sample volume is collected, and multiple
41 dilutions and reanalyses can occur to ensure identification and quantification of target VOCs
42 within the working range of the method. The contract-required quantitation limits (CRQL) are 5
43 parts per billion by volume (ppbv) or less for the nine target compounds. Consequently, low
44 concentrations can be measured. CRQLs are the EPA-specified levels of quantitation proposed
45 for EPA contract laboratories that analyze canister samples by GC/MS. For the purpose of this

1 plan, the CRQLs will be defined as the method reporting limits (**MRL**). The MRL is a function of
2 instrument performance, sample preparation, sample dilution, and all steps involved in the
3 sample analysis process.

4
5 Disposal room VOC monitoring system in open panels will employ the same canister sampling
6 method as used in the repository VOC monitoring. Passivated or equivalent sampling lines will
7 be installed in the disposal room as described in Section N-3a(2) and maintained once the room
8 is closed until the panel associated with the room is closed. The independent lines will run from
9 the sample inlet point to the individual sampler located in the access drift to the disposal panel.
10 The air will pass through dual particulate filters to prevent sample and equipment contamination.

11
12 N-3d(2) Sampling Schedule for Disposal Room VOC Monitoring

13
14 The disposal room sampling in open panels will occur once every two weeks, unless the need
15 to increase the frequency to weekly occurs in accordance with Permit Condition IV.F.3.c.

16
17 N-3e(2) Data Evaluation and Reporting for Disposal Room VOC Monitoring **in Open Panels**

18
19 When the Permittees receive laboratory analytical data from an air sampling event, the data will
20 be validated as specified in Section N-5a, within ten (10) working days of receiving the
21 laboratory analytical data. After obtaining validated data from an air sampling event, the data will
22 be evaluated to determine whether the VOC concentrations in the air of any closed room, the
23 active open room, or the immediately adjacent closed room exceeded the Action Levels for
24 Disposal Room Monitoring specified in Permit Module IV, Table IV.F.3.b.

25
26 The Permittees shall notify the Secretary in writing, within five (5) working days of obtaining
27 validated analytical results, whenever the concentration of any VOC specified in Permit Module
28 IV, Table IV.D.1 exceeds the action levels specified in Permit Module IV, Table IV.F.3.b.

29
30 The Permittees shall submit to the Secretary the Semi-Annual VOC Monitoring Report specified
31 in Permit Condition IV.F.2.b that also includes results from disposal room VOC monitoring.

32
33 N-4 Sampling and Analysis Procedures **for VOC Monitoring in Filled Panels**

34
35 This section describes the equipment and procedures that will be implemented during sample
36 collection and analysis activities for VOCs at WIPP.

37
38 VOC Disposal Room monitoring in the filled panels, beginning with Panel 3, will be continued
39 until final panel closure. The Permittees will continue monitoring VOCs in Room 1 of each filled
40 panel monthly to assure worker safety and protection. Only VOCs in the adjacent closed room
41 (Room 1 in a filled panel) pose a health risk to workers in the immediate vicinity.

42
43 Samples will be collected using the subatmospheric pressure grab sampling technique
44 described in USEPA Method TO-15. This method uses an evacuated SUMMA[®] passivated
45 canister (or equivalent) that is under vacuum (0.05 mm Hg) to draw the air sample from the

1 sample lines into the canister. The sample lines will be purged prior to sampling to ensure that
2 a representative sample is collected. The passivation of tubing and canisters used for VOC
3 sampling effectively seals the inner walls and prevents compounds from being retained on the
4 surfaces of the equipment. By the end of each sampling period, the canisters will be near
5 atmospheric pressure.

6
7 The analytical procedures for VOC monitoring in filled panels will be the same as indicated in
8 Attachment N, Section N-4e.

9
10 N-6 Hydrogen and Methane Monitoring

11
12 The Permittees will monitor for hydrogen and methane in filled Panels 3 through 7.

13
14 Monitoring of filled panels will involve installing the following in each filled panel:

- 15 • a substantial barrier
- 16 • an isolation barrier
- 17 • five additional monitoring locations.

18
19 The substantial barrier serves to protect the waste from events such as ground movement or
20 vehicle impacts. The substantial barrier will be constructed from available materials such as
21 magnesium oxide or mined salt.

22
23 The isolation barrier serves to block ventilation in the filled panel and prevent personnel access.
24 The isolation barrier is constructed as a typical WIPP bulkhead with no access doors or panels.

25
26 N-7 Sampling and Analysis Methods

27
28 N-7a Sampling Locations

29
30 The monitoring of flammable gas concentrations in filled panels will use the system installed for
31 VOC monitoring. Additional monitoring locations will be installed in each filled panel at the
32 following locations:

- 33
- 34 • the inlet of room 1,
- 35 • the waste side off the south isolation barrier
- 36 • the waste side off the north isolation barrier
- 37 • the accessible side off the south isolation barrier
- 38 • the accessible side off the north isolation barrier
- 39

1 N-7b Sampling Schedule

2
3 Sampling will be conducted monthly for the first twelve months at the start of monitoring
4 in each filled panel to establish the panel baseline. Subsequently, sampling will be
5 every two months, unless the baseline is greater than 10% of the composite Lower
6 Explosive Limit (LEL), in which case the frequency will be twice per month.

7
8 N-7c Sampling Methodology

9
10 Samples for hydrogen and methane will be collected using subatmospheric pressure
11 grab sampling as described in Environmental Protection Agency (EPA) Compendium
12 Method TO-15. The TO-15 sampling method uses passivated stainless-steel sample
13 canisters to collect integrated air samples at each sample location. Flow rates and
14 sampling duration may be modified as necessary to meet data quality objectives.

15
16 Sample lines shall be purged prior to sample collection.

17
18
19 N-7d Sampling Equipment

20
21 N-7d(1) SUMMA® Canisters

22
23 Stainless-steel canisters with passivated or equivalent interior surfaces will be used to collect
24 and store gas samples for hydrogen and methane analyses collected as part of the monitoring
25 processes. These canisters will be cleaned and certified prior to their use, in a manner similar to
26 that described by Compendium Method TO-15. The vacuum of certified clean canisters will be
27 verified upon initiation of a sample cycle. Sampling will be conducted using subatmospheric
28 pressure grab sampling techniques as described in TO-15.

29
30 N-7d(2) Sample Tubing

31
32 Treated stainless steel tubing shall be used as a sample path and treatment shall prevent the
33 inner walls from absorbing contaminants.

34
35 Any loss of the ability to obtain a sample from a sample line will be evaluated.

36
37 The criteria used for evaluation include:

- 38
39 • location of the line (e.g., loss of lines in rooms closest to the bulkheads may pose
40 greater risk than elsewhere in the panel)
41
42 • number of lines that have failed (e.g., loss of all lines in adjacent rooms may leave large
43 portions of the panel unmonitored)
44

- the flammable gas concentration observed immediately before failure (e.g., little or no flammable gas accumulation may indicate that additional monitoring is not important in the area where the lines are lost)

If safety cannot be assured the isolation wall will be constructed. That is, if a positive statement regarding the build up of flammable gases in areas that are not monitored cannot be made (e.g., it is unlikely that gas will accumulate to hazardous levels because the accumulation rates are low and adjacent monitoring will detect such increases), the isolation wall will be constructed.

Whenever the evaluation leads to a decision to continue monitoring in spite of the loss of the ability to take a sample from one or more sample lines, the decision will be re-evaluated periodically (e.g., after each sampling event) to assure continued safety.

N-7e Sample Management

Sample containers shall be sealed and uniquely marked at the time of collection of the sample. A Request-for-Analysis Form shall be completed to identify the sample canister number(s), sample type, and type of analysis requested.

N-7f Sampler Maintenance

Periodic maintenance for samplers and associated equipment shall be performed as recommended by the manufacturer.

N-7g Analytical Procedures

The samples will be analyzed using gas chromatography equipped with the appropriate detector under an established QA/quality control (QC) program. Analysis of samples shall be performed by a laboratory that the Permittees select and approve through established Quality Assurance processes.

N-9 Data Evaluation

Analytical data from sampling events will be evaluated and, it will be determined whether the sample concentrations of flammable gases exceed the action levels.

The Permittees shall notify the Secretary in writing, within five (5) working days of obtaining validated analytical results if either the lower or the upper action level is exceeded and the actions taken in response to that data. Should the actions include installation of the isolation wall the Permittees will include a schedule for the completion of such construction. Notifications sent to the Secretary will also be sent to the e-mail notification list in accordance with Permit Condition I.H.