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DEC 06 2001

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

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2. To: (Receiving Organization)	3. From' (Originating Organization)	4. Related EDT No.:
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16. KEY

Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D OR N/A (See WHC-CM-3-5, Sec. ~~12.7~~) DAP 11-19-01	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION
(See Approval Designator for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
1	1	Design Authority WJ Powell	WJ Powell	11/16/01	55-13
		Design Agent			
1	1	Cog. Eng. D. B. Parkman	D. B. Parkman	11/14/01	55-13
1	1	Cog. Mgr. M. J. Sutey	M. J. Sutey	11/14/01	T4-07
		QA W L Adams, W L Adams	W L Adams, W L Adams	11/14/01	55-11
1	1	Safety LJ Krippe		11/16/01	
		Env.			

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
1	1	M. R. Loch	M. R. Loch	11/20/01	

18.

Signature of EDT Originator	Date	Authorized Representative for Receiving Organization	Date	Design Authority/ cognizant Manager	Date
M. J. Sutey	11/14/01				

☐ Approved wicomments
☐ Disapproved wicomments

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DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	SST Engineering	Date 10/12/01
Project Title/Work Order		EDT No. 619733
RPP-9015, Flammable Gas Accumulation in Waste Transfer-Associated Structures Engineering Task Plan		ECN No. N/A

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
SUTEY, MJ	T4-07	X			
PARKMAN, DB	S5-13	X			
KOCH, MR	57-90	X			
DEFIGH-PRICE, C	R2-58	X			
LOWE, DC	R2-58	X			
KISON, PF	T4-07	X			
POWELL, WJ	55-13	X			
OTEN, TC	S5-05	X			
KFIPPS, LJ	RI-44	X			

Flammable Gas Accumulation in Waste Transfer-Associated Structures Engineering Task Plan

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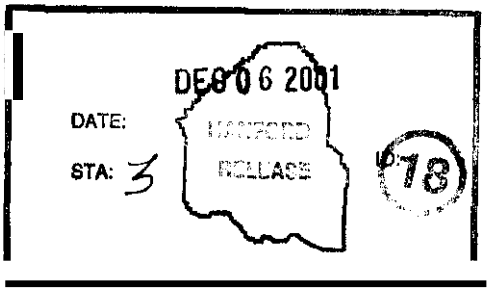
Abstract: The purpose of this Engineering Task Plan is to identify engineering activities necessary to complete the evaluation of potential flammable gas hazards in waste transfer-associated structures and to provide direction to correct any deficiencies found during the evaluation.



11-26-01
Release Approval Date

Release Stamp

Approved For Public Release

ENGINEERING TASK PLAN

FOR

FLAMMABLE GAS ACCUMULATION IN WASTE TRANSFER-ASSOCIATED STRUCTURES

By
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DB Parkman
MJ Sutey

CH2M HILL Hanford Group, Inc.
November 2001

1.0 Introduction

As part of the closure of the Flammable Gas Unreviewed Safety Question (USQ) for waste transfer-associated structures (e.g., process pits, valve pits, diversion boxes), a new Technical Safety Requirement (TSR) Administrative Control (AC) 5.9, "Flammability Controls," key element was proposed by CH2M HILL Hanford Company, Inc. (CHG) and approved by the U.S. Department of Energy (DOE) Office of River Protection (ORP). The new AC 5.9 key element (AC 5.9.2.b, "Waste Transfer-Associated Structure Ventilation Control) states.

> "Design changes or operations actions that could cause a reduction of ventilation flow (i.e., air exchange rate) in waste transfer-associated structures shall be evaluated to ensure that the ventilation flow is not reduced below that of barometric breathing. If the design change or operations action could cause a ventilation flow less than barometric breathing, installed equipment in the waste transfer-associated structure shall meet Ignition Source Control (IC) Set #1 requirements in AC 5.10, "Ignition Controls," or be removed or deenergized."

The new AC 5.9.2.bwaste transfer-associated structure ventilation control was written and implemented as a forward-looking control, i.e., only future design changes and operations actions needed to be evaluated. The control was forward-looking based on the consensus at the control decision meeting that there were no existing tank farm waste transfer-associated structures with energized electrical equipment where the ventilation flow had been reduced below barometric breathing.

In their letter approving the AC 5.9.2.bwaste transfer-associated structure ventilation control, ORP also directed CHG "to verify that in the current configuration there are no waste transfer associated structures in the tank farms where the reduced air flow would warrant application of the new AC 5.9 requirement." In response to this directed action, CHG performed a walk down ofthe approximately 550 active and inactive tank farm waste transfer-associated structures. This walk down identified approximately 250 structures where ventilation flow has not been reduced (i.e., bare, tape, rain cover) and approximately 300 structures that were covered with urethane foam (see Attachment A). Because the urethane foam has the potential to reduce the ventilation flow below barometric breathing, engineering evaluations were planned and initiated on the foam-covered structures to verify that there is another ventilation path from the structure or, if not, that there is no ignition source in the structure. CHG plans were to use a statistical approach to achieve an acceptable level of confidence that in their existing configuration there is no flammable gas accumulation hazard in the 300 foam-covered waste transfer-associated structures.

During the engineering evaluations ofthe foam-covered waste transfer-associated structures, it was found that the foam-covered 241-A-153 transfer box contained an energized leak detector that did not meet IC Set #1 and no other ventilation path could be found. Because the existing configuration is contrary to a key safety analysis and control decision assumption, it identified a Potential Inadequacy of the Safety Analysis (PISA)

and lead to an occurrence report (RP-CHG-TANKFARM-2001-0082), a Problem Evaluation Request (PER-2001-1551), and a positive USQ screening (TF-OI-0702). The CHG Plant Review Committee (PRC) declared a "Discovery" on September 24, 2001 and directed an accelerated verification of the configuration of all waste transfer-associated structures to ensure that there are no existing structures with potential ignition sources where the ventilation flow has been reduced below barometric breathing.

This document is the engineering task plan to satisfy the ORP directed action and the PRC direction to verify that in their current configuration there are no waste transfer-associated structures in the tank farms that pose **a** flammable gas hazard.

2.0 Scope

This document identifies the activities necessary to complete the evaluation of waste transfer-associated structures to ensure their configuration provides ventilation to prevent accumulation of flammable gas or that there are no potential ignition sources that do not meet IC Set #1 requirements. This Task Plan will verify, for foam-covered waste transfer-associated structures, the ignition source first and then identify breathing path, if required. It also provides direction to correct any non-conforming conditions found during the evaluation.

This document is a design baseline document. It will not be kept current after the maintenance work is completed. Any future work will have to comply with **AC** 5.9.2.b requirements before the work is performed.

2.1 Objectives

The objective of this task plan is to verify and document that the configuration of all waste transfer-associated structures allow a minimum ventilation flow rate (barometric breathing) or that the structure does not contain ignition sources that do not meet IC Set #1 requirements. This objective will be met by performing drawing reviews, field walkdowns, examination of previously completed work packages, and field modifications, as necessary.

2.2 Tasks and Deliverables

The deliverables associated with this work scope include the following activities (See flow chart on page B-2 for a general flow path).

2.2.1 Identify Waste Transfer-Associated Structures with Potentially Energized Electrical Equipment

There is an existing list of waste transfer-associated structures that are covered with urethane foam and, therefore, may not have a ventilation

path to allow barometric breathing (See Attachment A). The foam-covered structures on this list will be evaluated for ignition sources by a review of drawings, outstanding Engineering Change Notices (ECNs), Engineering Orders (EOs), walkdowns, and archived work packages.

2.2.2 Field Walkdown

The information from step 2.2.1 will be used to determine a baseline electrical condition for each foam-covered waste transfer-associated structure. This information will be used in doing a walkdown of each structure. There have been several drawing anomalies found in evaluations performed over the previous months. Therefore, the only acceptable method to verify that the electrical equipment is deenergized is by a field walkdown.

A general list of equipment that will be looked for during the walkdown are pumps, leak detectors, heaters, flowmeters and other instrumentation (A checklist is in Attachment B).

2.2.3 Resolve Issues Identified During Walkdown

Discrepancies identified during the walkdown will be researched to obtain resolution. It may be necessary to return to the field to completely resolve discrepancies.

2.2.4 Configuration Problems

If any configuration problems are identified during the field walkdown, they will be identified with a Problem Evaluation Request (currently Management Directive RPP-MD-058, Rev 2). The work to resolve these configuration issues will be covered in a different work scope.

2.2.5 De-Energize Equipment

Notify operations that equipment was found within a waste transfer-associated structure that contains electrical power. The power to the equipment will be de-energized unless operations have an immediate need for the equipment Provide support to operations in determining power source for equipment

2.2.6 Equipment Permanently De-energized

It is possible that equipment will be found that can be re-energized (i.e., pump has administrative lock). If the equipment is re-energized and it does not meet AC 5.9.2.brequirements then a hazardous condition could exist. The equipment will be evaluated against IC Set #I requirements.

2.2.7 Equipment Meets IC Set #1 Requirements

Determine if the equipment meets IC Set #I requirements. If the equipment does meet IC Set #1 requirements, there is no requirement to verify a breathing path.

2.2.8 Determine Presence of Breathing Path

If energized electrical equipment is found in a waste transfer-associated structure that does not meet IC Set #1, then a breathing path evaluation will be performed per HNF-IP-1266. The evaluation will determine if a ventilation path exists that will allow the waste transfer-associated structure to breathe barometrically.

2.2.9 Remove Electrical Power to Equipment

The electrical equipment identified in step 2.2.2that is not required by operations will have power removed (i.e., lift leads) in accordance with work control requirements. If the equipment were required for future operations then the structure would need to be modified to allow for barometrical breathing or the equipment modified or replaced to meet IC Set #1 requirements. This work is not covered by this engineering task plan.

2.2.10 Notify Shift Manager

For structures where a ventilation path does not exist the Shift Manager will be notified. The notification is being done because the waste transfer-associated structure either has a potential hazardous condition (i.e., does not meet the AC 5.9.2.b requirements) or the structure does not have a hazardous condition but could if the piece of equipment was re-energized.

2.2.11 Document Activities

A report will be generated to document the results of the evaluation of all waste transfer-associated structures. The report will include all reference information (ECNs or drawings) This report will be issued as a supporting document so assumptions can be reviewed if waste transfer-associated structures configuration requires future changes

3.0 Functional Requirements and Technical Criteria

The technical requirements and criteria are contained in Tank Farms Technical Safety Requirements (TSR) section 5.9 and section 5.10. HNF-IP-1266 is the document that implements these TSR controls.

The technical criteria used for determining breathing path are listed below:

- Existing Tank Farm Drawings will be used to determine presence of a breathing path where field walkdown can not be performed.
- **All** flanged equipment items will be assumed to form a seal at the flange-to-flange interface.
- If a special breathing path (i.e., valve handle or open nozzle to another pit) is chosen, it will be documented on Tank Farm drawing(s) and marked as such in the field, as appropriate.

4.0 Organization

The CHG organization designated to perform the work activities is the System Engineering groups supporting the Double-Shell and Single-Shell tank farms. Additionally, the respective maintenance organizations will be requested to provide planning and electrician support.

5.0 Schedule and Funding

This work is outside the FY02 baseline and a budget change request will be required. The work will be completed within 15 months from the time the project is funded.

6.0 Cost

The following are preliminary estimates of required resources, based on current work requirements, and provide a simple remedy of each waste transfer-associated structure. Unplanned scope, such as required upgrades to structures, will greatly affect these estimates.

Note: There are approximately 300 structures that are foam-covered that require an evaluation (Attachment A).

Identify Waste Transfer-Associated Structures with Potentially Energized Electrical Equipment

- Engineering-30 hrs/structure (review drawings, ECNs, EOs)
- Electrician- 16 hrs/farm

Verify Deenergization of Power Sources (RWR will be used to perform walkdown)

- Engineering- 80 hrs/farm
- Electrician- 80 hrs/farm
- Planning- 40 hrsifarm
- Operations-80 hrsifarm
- Radcon-80 hrs/farm

Resolve Issues Identified During Walkdown

- Engineering- 120 hrsifarm
- Electrician- 80 hrsifarm

Remove Electrical Power to Equipment (Work Package to execute field modification)

- Engineering- 240 hrsifarm
- Planning- 120 hrs/farm
- Electrician- 80 hrs/farm
- Operations- 40 hrs/farm
- Safety - I6 hrs/farm
- Radcon - 40 hrsifarm
- Quality - I6 hrs/farm
- Environment – 16 hrsifarm
- Engineering Manager - 4 hrsifarm
- Sign Painter – 4 hrsifarm

Note: **A** physical modification to provide a breathing path is not addressed in this Task Plan.

Determine Presence of Breathing Path

- Engineering- 8 hrs/structure

Document Activities (Document via EDT)

- Engineering- 200 hrs
- Quality - 24 hrs
- Safety - 24 hrs
- Clerical support - 24 hrs

The total personnel requirements are listed below

- Engineering- 374 weeks or 7.2 person years.
- Planning- 48 weeks or 0.9 person years.
- Electrician- 76.8 weeks or 1.5 person years.
- Operations- 36 weeks or 0.7 person years.
- Safety - 5.4 weeks or 0.1 person years.
- Radcon - 36 weeks or 0.7 person years.
- Quality - 5.4 weeks or 0.1 person years.
- Environment – 4.8 weeks or 0.1 person years.
- Engineering Manager - 1.2 weeks or 0.02 person years.
- Clerical Support - 0.6 weeks or 0.01 person years.
- Sign Painter – 1.2 weeks or 0.02 person years.

Attachment A

In the following table is a list of all the waste transfer-associated structures (Pits) at Tank Farms (East and West). The list was taken from the FSAR Table 2-25. **A** walkdown was conducted to determine the current configuration of the Pits. During the walkdown additional pits were identified and other pits were determined to be typos in the FSAR table. In this walkdown the Pits were graded as follows:

- If the Pit had nothing to prevent water intrusion, then the Pit was labeled in the table with a "N".

- If the Pit was taped to prevent water intrusion, then the Pit was labeled in the table with a "T".

- If the Pit has a supplemental cover, then the Pit was labeled in the table with "cover".

- If the Pit was foamed to prevent water intrusion, then the Pit was labeled in the table with a "F".

- If the Pit has a foam gasket, then the Pit was labeled in the table with a foam gasket

The first three allow the pit to barometrically breath and do not require further evaluation. The last two require an additional evaluation.

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
Aging Waste Central/Sluice Pump Pits				
241-AY-01A	T			
241-AY-01B	T			
241-AY-01C	T			
241-AY-01D	T			
241-AY-01E	T			
241-AY-02A	T			
241-AY-02B	T			
241-AY-02C	T			
241-AY-02D	T			
241-AY-02E	T			
241-AZ-01A	T			
241-AZ-01B	T			
241-AZ-01C	T			
241-AZ-02A	T			
241-AZ-02B	T			
241-AZ-02C	T			
Aging Waste Annulus Pump Pits				
241-AY-01F	T			
241-AY-02F	T			
241-AZ-01F	T			
241-AZ-02F	T			
Aging Waste Leak Detection/Encasement Pits				
241-AY-101A	T			
241-AY-101B (encasement)	T			
241-AY-102A	T			
241-AZ-101	T			
241-AZ-102	T			
241-AZ-101/102 (encasement)	T			
DST Valve Pits				
241-AW-A	T			
241-AW-B	T			

Label	Tape	Tank	Meets IC Set 1	Comments
241-AP	N			
241-AN-A	T			
241-AN-B	T			
DST Central/Feed Pump Pits				
214-AN-01A	N			
241-AN-02A	N			
241-AN-03A	N			
241-AN-04A	N			
241-AN-05A	N			
241-AN-06A	N			
241-AN-07A	N			
241-AW-01A	T			
241-AW-02A	N			
241-AW-02E (242-A Feed pump Pit)	T			
241-AW-03A	T			
241-AW-04A	T			
241-AW-05A	T			
241-AW-06A	T			
241-AP-01A	N			
241-AP-02A	N			
241-AP-02D (Grout Feed Pump Pit)	N			
241-AP-03A	N			
241-AP-04A	N			
241-AP-05A	N			
241-AP-06A	N			
241-AP-07A	N			
241-AP-08A	N			
DST Annulus Pump Pits				
241-AN-01B	T			
241-AN-02B	T			
241-AN-03B	T			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-AN-04B	T			
241-AN-05B	T			
241-AN-06B	T			
241-AN-07B	T			
241-AW-01B				cover
241-AW-02B				cover
241-AW-03B				cover
241-AW-04B				cover
241-AW-05B				cover
241-AW-06B				cover
241-AP-01B	N			
241-AP-02B	N			
241-AP-03B	N			
241-AP-04B	N			
241-AP-05B	N			
241-AP-06B	N			
241-AP-07B	N			
241-AP-08B	N			
DST Leak Detection Pits				
241-AN-01C	T			
241-AN-02C	T			
241-AN-03C	T			
241-AN-04C	T			
241-AN-05C	T			
241-AN-06C	T			
241-AN-07C	T			
241-AW-01C				cover
241-AW-02C				cover
241-AW-03C				cover
241-AW-04C				cover
241-AW-05C				cover
241-AW-06C				cover
241-AP-03C	N			
241-AP-05C	N			

Label	Tape	Tank	Meets IC Set 1	Comments
DST Flush Pits				
241-AN	N			
241-AW	N			
241-AP	N			
SST Valve Pits				
241-C	N			
241-AX-A	T			
241-AX-B	T			
241-A-A	T			
241-A-B	T			
SST Center/Sluice Pits				
241-A-01A (inactive)	T			
241-A-01B (inactive)	F			
241-A-01C (inactive)	F			
241-A-01D (inactive)				does not exist
241-A-02A (inactive)	F			
241-A-02B (inactive)	F			
241-A-02C (inactive)	F			
241-A-02D (inactive)	F			
241-A-03A (inactive)	F			
241-A-03B (inactive)	F			
241-A-03C (inactive)	F			
241-A-03D (inactive)	F			
241-A-04A (inactive)	F			
241-A-04B (inactive)	F			
241-A-04C (inactive)	F			
241-A-04D (inactive)				does not exist
241-A-05A (inactive)	F			
241-A-05B (inactive)	F			
241-A-05C (inactive)	F			
241-A-05D (inactive)	F			
241-A-06A (inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-A-06B (inactive)	F			
241-A-06C (inactive)	F			
241-A-06D (inactive)	F			
241-AX-01B (inactive)	F			
241-AX-01C (inactive)	F			
241-AX-01D (inactive)	F			
241-AX-02A (inactive)	F			
241-AX-02B (inactive)	F			
241-AX-02C (inactive)	F			
241-AX-02D (inactive)	F			
241-AX-03A (inactive)	F			
241-AX-03B (inactive)	F			
241-AX-03C (inactive)	F			
241-AX-03D (inactive)	F			
241-AX-04A (inactive)	F			
241-AX-04B (inactive)	F			
241-AX-04C (inactive)	F			
241-AX-04D (inactive)	F			
241-A-01H (slurry dist. Pit-active for SWP)	T			
241-AX-01A (active for SWP)	T			
241-C-07 (no pit; covered salt well caisson, inactive)	F			
241-C-08 (no pit; covered salt well caisson, inactive)	F			
241-C-09 (no pit; covered salt well caisson, inactive)	F			
241-C-110 (no pit; covered salt well caisson, inactive)	F			
241-C-111 (no pit; covered salt well caisson, inactive)	F			
241-C-112 (no pit; covered salt well caisson, inactive)	F			
241-C-01A (inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-C-01B (inactive)	F			
241-C-01C (inactive)	F			
241-C-02A (inactive)	F			
241-C-02B	F			
241-C-02C (inactive)	F			
241-C-03A (inactive)	F			
241-C-03B	T			
241-C-03C (inactive)	F			
241-C-04A (inactive)	F			
241-C-04B (inactive)	F			
241-C-04C (inactive)	F			
241-C-05A	F			
241-C-05B (inactive)	F			
241-C-05C (inactive)	F			
241-C-06A	T			
241-C-06B	T			
241-C-06C	T			
241-C201 (inactive)	F			
241-C202 (inactive)	F			
241-C203 (inactive)	F			
241-C204 (inactive)	F			
SST Flush Pits				
241-A-A (inactive)	T			
241-A-B (inactive)	T			
241-AX-A (inactive)	T			
241-AX-B (inactive)	T			
Diversion Boxes				
241-A-151	F			
241-A-152 (inactive)	N			
241-A-153 (inactive)	F			
241-AR-151	N			
241-AX-151 (inactive)	F			
241-AX-152	T			
241-AX-153 (inactive)	F			
241-AX-155	T			

Label	Tape	Tank	Meets IC Set 1	Comments
241-AX-501				cover
241-AY-151 (inactive)	F			
241-AY-152 (inactive)	F			
241-AY-501	T			
241-AZ-152	T			
241-C-151 (inactive)	F			
241-C-152 (inactive)	F			
241-C-153 (inactive)	F			
241-C-154 (inactive)	F			
241-C-252 (inactive)	F			
241-CR-151 (inactive)	F			
241-CR-152 (inactive)	F			
241-CR-153 (inactive)	F			
241-ER-151	N			
241-ER-152	T			
241-ER-153	N			
Vault Pits				
244-AR	F			
DCRT Pits				
244-A Lift Station	F			
244-CR	F			
Catch Tank Pits				
241-A-302A	F			
241-A-302B (inactive)	F			
241-A-350	T			
241-A-417	T			
241-AX-152	T			
241-AZ-151	T			
241-AZ-154	T			
241-301C (inactive)				no pit-contains only risers
241-ER-311	N			
Cleanout Boxes				
241-COB-AN-1	N			
241-COB-AN-2	N			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-COB-AN-3	N			
241-COB-AN-4	N			
241-COB-AN-5	N			
241-COB-AN-6	N			
241-COB-AN-7	N			
241-COB-AN-8	N			
241-COB-AW-1	N			
241-COB-AW-2	N			
241-COB-AW-3	N			
241-COB-AW-4	N			
241-COB-AW-5	N			
241-COB-AW-6	N			
241-COB-AW-7	N			
241-COB-AW-8	N			
241-COB-AW-9	N			
241-COB-AW-10	N			
241-COB-AW-11	N			
241-COB-AW-12	N			
241-COB-A-30	T			
241-COB-AZ-1	T			
241-COB-AZ-2	T			
241-COB-AZ-3	T			
241-COB-AZ-4	T			
241-COB-AZ-5	T			
241-COB-AZ-6	T			
241-COB-AZ-7	T			
241-COB-AZ-8	T			
241-COB-AZ-9	T			
241-COB-AZ-10	T			
Additional Pits				
241-AP-07D	N			
241-AP-07E	N			
241-AP-07F	N			
Ventilation Seal Pot Pit	N			
241-AW-02D Drain Pit	T			
241-S-A	T			Partially Taped
241-S-B	N			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-S-C	N			
241-S-D	N			
241-SX-A	T			
241-SX-B	T			
241-TX-14B (Inactive)	F			
241-TX-15X (Near 242-115-TX; Inactive)	F			
241-TX-15B (Near 242-115-TX; Inactive)	F			
241-S-01A	N			
241-S-02A	F			Lead Plates
241-S-03A	T			Partially Taped
241-S-04A	F			
241-S-05A	F			
241-S-06A	T			Partially Taped
241-S-07A	N			
241-S-08A	N			Poor Tape Job
241-S-09A	N			
241-S-110A	N			
241-S-111A	N			Poor Tape Job
241-S-112A	N			
241-SX-01A	F			
241-SX-02A	F			
241-SX-02B	F			
241-SX-03A	F			
241-SX-03B	F			
241-SX-04A	F			
241-SX-05A	F			
241-SX-05B	N			
241-SX-06A	F			
241-SX-07A (Inactive)	N			
241-SX-08A (Inactive)	F			
241-SX-09A (Inactive)	F			
241-SX-110A (Inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-SX-111A (Inactive)	N			
241-SX-112A (Inactive)	F			
241-SX-113A (Inactive)	F			
241-SX-114A (Inactive)	F			
241-SX-115A (Inactive)	F			
241-T-01A	F			
241-T-01B	F			
241-T-01C (Inactive)	F			
241-T-02A (Inactive)	F			
241-T-02B (Inactive)	F			
241-T-02C (Inactive)	F			
241-T-03A (Inactive)	F			
241-T-03B (Inactive)	F			
241-T-03C (Inactive)	F			
241-T-06 (Inactive)	F			
241-T-08 (Inactive)	F			
241-T-112 (Inactive)	F			
241-TX-01A (Inactive)	N			
241-TX-01C (Inactive)	F			
241-TX-01D (Inactive)	F			
241-TX-02A (Inactive)	F			
241-TX-02C (Inactive)	F			
241-T-02D (Inactive)	F			
241-TX-03A (Inactive)	F			
241-TX-03C (Inactive)	F			
241-TX-03D (Inactive)	F			
241-TX-04A (Inactive)	F			
241-TX-04C (Inactive)	F			
241-TX-04D (Inactive)	F			
241-TX-05A (Inactive)	F			
241-TX-05C (Inactive)	F			
241-TX-05D (Inactive)	F			
241-TX-06A (Inactive)	F			
241-TX-06C (Inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-TX-06D (Inactive)	F			
241-TX-07A (Inactive)	F			
241-TX-07C (Inactive)	F			
241-TX-07D (Inactive)	F			
241-TX-08A (Inactive)	F			
241-TX-08C (Inactive)	F			
241-TX-08D (Inactive)	F			
241-TX-09A (Inactive)	N			
241-TX-110A (Inactive)	F			
241-TX-111A (Inactive)	F			
241-TX-112A (Inactive)	F			
241-TX-113A (Inactive)	F			
241-TX-114A (Inactive)	F			
241-TX-115A (Inactive)	F			
241-TX-116A (Inactive)	F			
241-TX-117A (Inactive)	F			
241-TX-118A (Inactive)	F			
241-TY-01A (Inactive)	F			
241-TY-02A (Inactive)	F			
241-TY-03A (Inactive)	F			
241-TY-04A (Inactive)	N			
241-T-04 (No pit; covered salt well caisson)	N			
241-T-05 (No pit; covered salt well caisson, inactive)	N			Foam Cut Around Edges. The pit can still barometrically breathe
241-T-06 (inactive)	F			
241-T-07 (No pit; covered salt well caisson)	N			
241-U-01A (Inactive)	N			
241-U-01B (Inactive)	N			
241-U-01C (Inactive)	N			
241-U-02A	F			
241-U-02B	N			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-U-02C	F			
241-U-03A	F			
241-U-03B	N			
241-U-03C	F			
241-U-04A (Inactive)	F			
241-U-04B (Inactive)	F			
241-U-04C (Inactive)	F			
241-U-05A	F			
241-U-05B	N			
241-U-05C	F			
241-U-06A	F			
241-U-06B	F			
241-U-06C	N			
241-U-07A	N			
241-U-07B	F			
241-U-07C	F			
241-U-08A	N			
241-U-08B	F			
241-U-08C	F			
241-U-09A	N			
241-U-09B	N			
241-U-09C	F			
241-U-110A (Inactive)	T			
241-U-110B (Inactive)	F			
241-U-111A	T			
241-U-111B	F			
241-U-201 (Inactive)	F			
241-U-202 (Inactive)	F			
241-U-203 (Inactive)	F			
241-U-204 (Inactive)	F			
241-T-09 (No pit; covered salt well caisson)	F			Foam Cut Around Edges. The pit can not barometrically breathe
241-T-110 (No pit; covered salt well caisson)	T			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-T-111 (No pit; covered salt well caisson)	T			
241-T-201 (No pit; covered salt well caisson, inactive)	F			
241-T-202 (No pit; covered salt well caisson, inactive)	F			
241-T-203 (No pit; covered salt well caisson, inactive)	F			
241-T-204 (No pit; covered salt well caisson, inactive)	F			
241-TY-05 (No pit; covered salt well caisson, inactive)	F			
241-U-112 (No pit; covered salt well caisson, inactive)	F			
241-B-01A (Inactive)	F			
241-B-01B (Inactive)	F			
241-B-01C (Inactive)	F			
241-B-02A (Inactive)	F			
241-B-02B (Inactive)	F			
241-B-02C (Inactive)	F			
241-B-03A (Inactive)	F			
241-B-03B (Inactive)	F			
241-B-03C (Inactive)	F			
241-B-06A (Inactive)	F			
241-B-08A (Inactive)	F			
241-B-09A (Inactive)	F			
241-B-112A (Inactive)	F			
241-B-202 (Inactive)	F			
241-B-203 (Inactive)	F			
241-B-204 (Inactive)	F			
241-BX-01A (Inactive)	F			
241-BX-01B (Inactive)	F			
241-BX-01C (Inactive)	F			
241-BX-02A (Inactive)	F			
241-BX-02B (Inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-BX-02C (Inactive)	F			
241-BX-03A (Inactive)	F			
241-BX-03B (Inactive)	F			
241-BX-03C (Inactive)	F			
241-BX-04A (Inactive)	F			
241-BX-04B (Inactive)	F			
241-BX-04C (Inactive)	F			
241-BX-05A (Inactive)	F			
241-BX-05B (Inactive)	F			
241-BX-05C (Inactive)	F			
241-BX-06A (Inactive)	F			
241-BX-06B	F			
241-BX-06C (Inactive)	F			
241-BX-08A (Inactive)	F			
241-BX-110A (Inactive)	F			
241-BX-111A (Inactive)	F			
241-BX-112A (Inactive)	F			
241-BY-01A (Inactive)	F			
241-BY-01C (Inactive)	F			
241-BY-01D (Inactive)	F			
241-BY-02A	N			
241-BY-02B (Inactive)	F			
241-BY-02C (Inactive)	F			
241-BY-02D	F			
241-BY-03A	N			
241-BY-03C (Inactive)	F			
241-BY-03D (Inactive)	F			
241-BY-04A (Inactive)	F			
241-BY-04C (Inactive)	F			
241-BY-04D (Inactive)	F			
241-BY-05A	N			
241-BY-05C (Inactive)	F			
241-BY-05D (Inactive)	F			
241-BY-06A	N			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-BY-06C (Inactive)	F			
241-BY-06D (Inactive)	F			
241-BY-07A (Inactive)	F			
241-BY-08A (Inactive)	F			
241-BY-09A	N			
241-BY-109 Vbox Line V305 (Inactive)	F			
241-BY-109 Vbox Line 812 (Inactive)	F			
241-BY-110A (Inactive)	F			
241-BY-111A (Inactive)	F			
241-BY-111B (Inactive)	F			
241-BY-111C (Inactive)	F			
241-BY-111D (Inactive)	F			
241-BY-112A (Inactive)	F			
241-BY-112C (Inactive)	F			
241-B-04 (No pit; covered salt well caisson, inactive)	F			
241-B-05 (No pit; covered salt well caisson, inactive)	F			
241-B-07 (No pit; covered salt well caisson, inactive)	F			
241-B-110 (No pit; covered salt well caisson, inactive)	F			
241-B-111 (No pit; covered salt well caisson, inactive)	F			
241-B-201 (No pit; covered salt well caisson, inactive)	F			
241-BX-07 (No pit; covered salt well caisson, inactive)	F			
241-BX-09 (No pit; covered salt well caisson, inactive)	F			
241-BY-112D (Inactive)	F			
241-B-151 (Inactive)	F			
241-B-152 (Inactive)	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-B-153 (Inactive)	F			
241-B-154 (Inactive)	F			
241-B-252 (Inactive)	F			
242-B-151 (Inactive)	F			
241-BR-152 (Inactive)	F			
241-BX-153 (Inactive)	F			
241-BX-154 (Inactive)	F			
241-BX-155 (Inactive)	F			
241-BXR-151 (Inactive)	F			
241-BXR-152 (Inactive)	F			
241-BXR-153 (Inactive)	F			
241-BYR-152 (Inactive)	F			
241-BYR-153 (Inactive)	F			
241-BYR-154 (Inactive)	F			
244-BXR (Inactive)	F			
241-TXR-244 (Inactive	F			
241-UR-244 (Inactive)	F			
244-BX	N			
244-S	N			
244-TX	N			
244-U	N			
241-B-301B (Inactive)	F			
241-B-302B (Inactive)	F			
241-BX-302A (Inactive)	N			Buried Tank
241-BX-302B (Inactive)	F			
241-BX-302C (Inactive)	F			
241-S-302 (Inactive)	N			
241-S-302A (Inactive)	N			
241-S-304	N			
241-SX-302A (Inactive)	N			
241-T-301B (Inactive)	N			Buried Tank
241-TX-302A (Inactive)	N			Buried Tank
241-TX-302B (Inactive)	F			
241-TX-302C (Inactive)	N			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-TY-302A (Inactive)	N			
241-TY-302B (Inactive)	N			
241-UX-302A	N			
241-SY-A	N			
241-SY-B	N			
241-SY-01A	N			
241-SY-02A	N			
241-SY-02E (Inactive)	N			
241-SY-03A	N			
241-SY-01B	N			
241-SY-02B	N			
241-SY-03B	N			
241-SY-01C	N			
241-SY-02C	N			
241-SY-03C	N			
241-SY-A	N			
241-SY-B (Inactive)	N			
241-S-A	N			
241-S-B	N			
241-SX-A	N			
241-SX-B	N			
241-UA	T			
241-UB	T			
241-UC	T			
241-UD	F			Foam Gasket
240-S-151	T			
240-S-152 (Inactive)	F			
241-S-151	N			
241-S-152 (Inactive)	F			
241-T-151 (Inactive)	F			
241-T-152 (Inactive)	F			
241-T-153 (Inactive)	F			
241-T-252 (Inactive)	F			
241-TX-152	F			

Label	Nothing/Foam/ Tape	Connected to Tank	No Electrical or Meets IC Set 1	Comments
241-TX-153 (Inactive)	F			
241-TX-154	F			
241-TX-155 (Inactive)	F			
241-TXR-151 (Inactive)	F			
241-TXR-152 (Inactive)	F			
241-TXR-153 (Inactive)	F			
241-TR-152 (Inactive)	F			
241-TR-153 (Inactive)	F			
241-TY-153 (Inactive)	F			
241-U-151	N			
241-U-152	F			
241-U-153 (Inactive)	F			
241-U-252 (Inactive)	F			
241-UR-151 (Inactive)	F			
241-UR-152 (Inactive)	F			
241-UR-153 (Inactive)	F			
241-UR-154 (Inactive)	F			
241-UX-154	F			
241-WR (Inactive)	F			
241-COB-SY-1	N			
241-COB-SY-2	N			
241-COB-SY-3	N			
241-COB-SY-4	N			
241-COB-SY-5	N			
241-COB-SY-6	N			
241-SX-151	N			
241-SX-152	F			

Attachment B

Checklist

The following is a checklist that will be used to help identify electrical equipment for the various pits.

Pit _____

1. Leak detector

2. Pumps

3. Heat trace

4. Flowmeter

5. Other instrumentation

6. Other equipment

List all reference information (Drawings, ECNs, EO, etc):

FLOW PATH

RPP-9015, REV.0