

Work Order Number:

01868409



**Title: MONITORING OF CLOSED WASTE TANKS FOR HTF
AND FTF**

Task #'s

01



APPROVED

MSR's:

Work Group #: ENG

CLI #: ---

Functional Class:

Planner: HOCHSTETLER, WENDELL

Comment



Work Order Package

MC11

Date

4/13/21

Safety Class



Work Order 01868409 Task 01

Facility	FTF	F-TANK FARM
Unit		Project
Work Order Type	PM	Priority 3B
WO Discipline	A	Written To MONITORING OF CLOSED WASTE TANKS
WO Planner	N9895	WO Planner Name HOCHSTETLER W
Task Planner	N9895	Task Planner Name HOCHSTETLER W
Work Order Title	MONITORING OF CLOSED WASTE TANKS FOR HTF AND FTF	Task Title MONITORING OF CLOSED WASTE TANKS FOR HTF AND FTF

APPROVED

Work Order Task Written To

Job Type	OT	User Defined
Facility	FTF	Unit
System Code		Area
Equipment Type		Component Type
Equipment Number		Component Number
Work Item	MONITOR CLOSED TANK	Equipment List
UTC		
Equipment Tag		Alternate Tag
Client/Account		
Location		
UTC Eqpt Type		UTC Sub Type/Desc
CLI		Maint PGMs

Crews

ENG

Work Order Package

Work Order 01868409 Task 01

Nuclear Information

RWP Required TS/SLC Related N Tech Spec Action LCO	NCR Tech Spec Date/Time Q Group
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Work Order Task Instructions

Identify conditions that would lead to loss of integrity or long-term structural strength of the closed tank (as assumed in the performance assessment) that would compromise stabilization and containment of the residual waste (See attached checklist).

This inspection is performed by the RM&A and WDA groups and is required per the requirements of FTF / HTF General Closure Plans (LW0-RIP-2009-00009 and SRR-CWDA-2011-00022).

The point of contact is Kent Rosenberger, 557-9328, Building 705-1C.

Rework/Approval

Deficiency Tag Tag Removed Rework Comment	Location Rework N
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Documents added to work package in field:

Check box if added document is to be retained as part of Work Pkg record.

Closed Tank Inspection Checklist For Tanks 5, 6, 12, 16, 17, 18, 19, 20.	<input checked="" type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

Work Order Package

Work Order 01868409 Task 01

Trouble Found/Work Performed

PM Completion Readings: _____ Miles _____ Hours _____

Continue on additional sheets? _____

Print Report - Work Order Documents (M102/M104)

Facility	Type	Sub-Type	Document Number	Sheet	Image	Address
FTF	DOC		INSP COVER SHEET & CHECKLIST			
		Title	INSPECTION COVER SHEET & CHECKLIST			
FTF	WI		01868409-01			
		Title	WORK INSTRUCTIONS			

References/Document Information (M102/M104)

Facility	Type	Sub-Type	Document Number	Sheet	Image	Address
PJBX			PRE-JOB BRIEFING CHECKLIST (OSR 39-31)			
FTF	DOC		INSP COVER SHEET & CHECKLIST			
		Title	INSPECTION COVER SHEET & CHECKLIST		Image	N
FTF	DOC		LWO-RIP-2009-00009			
		Title	GENERAL CLOSURE PLAN FOR FTF		Image	N
FTF	DOC		ORIGINAL CLOSED TANK INSP. DOC			
		Title	ORIGINAL CLOSED TANK INSPECTION DOCUMENTS & FORMS		Image	N
FTF	WI		01868409-01			
		Title	WORK INSTRUCTIONS		Image	N
HTF	DOC		SRR-CWDA-2011-00022			
		Title	GENERAL CLOSURE PLAN FOR HTF		Image	N

Work Order Package

Work Order

01868409

Task

01

* * *

End of Report

* * *

Work Order No: 01868409 - 01

Work Order Title: MONITORING OF CLOSED WASTE TANKS FOR HTF AND

FTF

Rev: 0

Asset Suite Information

Date Created 04/13/2021
Planner Name Hochstetler, Wendell
Planner Telephone 208-1451
Equipment Name MONITORING OF CLOSED WASTE TANKS
Facility FTF
CLI Number
Functional Class

1.0 **Scope of Work:**

Identify conditions that would lead to loss of integrity or long-term structural strength of the closed waste tank (as assumed in the applicable performance assessment) that would compromise stabilization and containment of the residual waste.

AHA Number: N/A				Drawing: LWO-RIP-2009-00009 and SRR-CWDA-2011-00022				
Pre-Job Briefing Checklist: OSR 39-31				Permit/OSR: SC1 890 008 898				
DCF / DCP: N/A				MSR: N/A				
SRWP	X	OR	Job Specific RWP	N/A	Procedure: N/A			
P-Code: N/A				ASME B31.3:		Yes	X	No
Fluid Service Category: N/A								
Additional Attachments: Closed Waste Tank Annual Inspection Checklist Cover Sheet & Checklist								

2.0 Precautions and Limitations:

- 2.1. Workers shall perform Individual Hazard Analysis (IHA) for this task, which includes continual self-analysis of work scope, hazards and controls (reference Savannah River Site General Employee Basic Hazard Control Handbook).
- 2.2. A Time Out shall be initiated, FLM shall be notified and/or the work package returned to planning for problems or conditions encountered that are not anticipated or covered under the AHA or associated permits, or the boundaries/scope of work change as the job progresses.

3.0 Prerequisites:

NOTE

ALL individuals signing OR initialing anywhere in or on this document MUST complete Participants/Performers table in Section 8.0.

3.1. RM&A/FLM: **ENSURE** a pre-job brief has been performed.

3.2. RM&A: **NOTIFY** the Shift Manager prior to performing work.

3.3. RM&A: **NOTIFY** RPD prior to performing work.

3.4. RM&A: **DETERMINE** which waste tanks have been operationally closed and require an inspection below:

<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input checked="" type="checkbox"/>	5	<input checked="" type="checkbox"/>	6
<input type="checkbox"/>	7	<input type="checkbox"/>	8	<input type="checkbox"/>	9	<input type="checkbox"/>	10	<input type="checkbox"/>	11	<input checked="" type="checkbox"/>	12
<input type="checkbox"/>	13	<input type="checkbox"/>	14	<input type="checkbox"/>	15	<input checked="" type="checkbox"/>	16	<input checked="" type="checkbox"/>	17	<input checked="" type="checkbox"/>	18
<input checked="" type="checkbox"/>	19	<input checked="" type="checkbox"/>	20	<input type="checkbox"/>	21	<input type="checkbox"/>	22	<input type="checkbox"/>	23	<input type="checkbox"/>	24
<input type="checkbox"/>	25	<input type="checkbox"/>	26	<input type="checkbox"/>	27	<input type="checkbox"/>	28	<input type="checkbox"/>	29	<input type="checkbox"/>	30
<input type="checkbox"/>	31	<input type="checkbox"/>	32	<input type="checkbox"/>	33	<input type="checkbox"/>	34	<input type="checkbox"/>	35	<input type="checkbox"/>	36
<input type="checkbox"/>	37	<input type="checkbox"/>	38	<input type="checkbox"/>	39	<input type="checkbox"/>	40	<input type="checkbox"/>	41	<input type="checkbox"/>	42
<input type="checkbox"/>	43	<input type="checkbox"/>	44	<input type="checkbox"/>	45	<input type="checkbox"/>	46	<input type="checkbox"/>	47	<input type="checkbox"/>	48
<input type="checkbox"/>	49	<input type="checkbox"/>	50	<input type="checkbox"/>	51						

3.5. RM&A: **IF** an inspection was performed on a tank the previous year, **THEN**

RETRIEVE the closed waste tank annual inspection task document and associated photographs from the previous year, from the Liquid Waste Organization Document Library (LWO DL).

4.0 Task Performance:

Initials

4.1. RM&A/WDA: **PERFORM** a walk down, **AND**

Visually INSPECT each respective tank top and surrounding area.

BAM

4.2. WDA: **IF** available, **THEN**

COMPARE photographs from the previous year to the current condition of the tank top.

BAM

4.3. WDA: **ASSESS** the condition of previous findings.

BAM

4.4. RM&A/WDA: **TAKE** photographs of the tank top and any unsatisfactory conditions.

BAM

4.5. RM&A/WDA: **COMPLETE** the Closed Waste Tank Annual Inspection Coversheet & Checklist (i.e., cover sheet and an inspection checklist for each closed waste tank).

BAM

4.6. RM&A: **ATTACH** photographs to the appropriate inspection checklist.

BAM

4.7. RM&A: **ASSIGN** the completed Closed Waste Tank Annual Inspection Cover Sheet and Checklist(s) a single LWO DL document number (guidance provided by the library help), **THEN**

SELECT "C&WDA" for the "Organization" field, **AND**

INCLUDE the inspection year as the first characters in the "Title" field.

BAM

4.8. RM&A: **RETAIN** the completed Closed Waste Tank Annual Inspection Checklist Cover Sheet and Checklist(s) as a Tank Farm Area Specific document per procedure S4-ADM.55, *Tank Closure Wallet (TCW) Documentation Process*.

BAM

5.0 Post Maintenance Testing & Return to Service:

Initials

None

6.0 Post Work & Feedback:

Initials

6.1. RM&A: **NOTIFY** work control that the closed waste tank annual inspection task is complete, **AND**

RETURN the completed Closed Waste Tank Annual Inspection Checklist Cover Sheet and Checklist(s) documentation.

PAM

6.2. RM&A: **ENTER** any feedback including field revisions and recommendations for improvements for future work in Passport **OR** NA if no feedback applies (CO Comments - Mechanic Feedback to be addressed by Work Control).

PAM

NOTE: The following Steps 6.3.1 through 6.3.5 **SHALL** only be performed if unsatisfactory conditions are found. If all conditions are satisfactory these steps can be N/A'd.

6.3. RM&A/WDA: **ASSIGN** a corrective action for any unsatisfactory condition as detailed below:

6.3.1. RM&A: **ENTER** the information required by the STAR system (guidance provided by the system) and include an appropriate due date.

NA

6.3.2. RM&A: **ATTACH** photographs that substantiate the unsatisfactory condition.

NA

6.3.3. RM&A: **INSERT** the STAR unique identifier in the appropriate location on the appropriate inspection checklist.

NA

6.3.4. RM&A: **ATTACH** the necessary electronic files required by the STAR system (e.g., copy of the inspection checklist affected, screen shot of the work request, Request for Engineering Assistance (REA), Nonconformance Report (NCR).

NA

6.3.5. RM&A: **IF** the unsatisfactory condition and planned corrective action cannot be remediated within 30 days, **THEN**

NOTIFY SCDHEC and EPA within 30 days of identification.

NA

Work Order No: 01868409 - 01

Work Order Title: MONITORING OF CLOSED WASTE TANKS FOR HTF AND
FTF

Rev: 0

7.0 Attachments / References:

Closed Waste Tank Annual Inspection Checklist Cover Sheet & Checklist

8.0 Participants/Performers:

User ID	Print Name	Signature	Initials	Org
08732	Bruce Martin	B-G Mx	BaM	WRJ800
L3408	MARK LAYTON	M L L	MHL	WRJ810

Closed Waste Tank Annual Inspection Instructions

Inspection Purpose:

Identify conditions that would lead to loss of integrity or long-term structural strength of the closed waste tank (as assumed in the applicable performance assessment) that would compromise stabilization and containment of the residual waste.

Driver:

Annual visual inspections of areas surrounding closed waste tanks are required by the *Industrial Wastewater General Closure Plan for F-Area Waste Tank Systems* (LWO-RIP-2009-00009) and the *Industrial Wastewater General Closure Plan for H-Area Waste Tank Systems* (SRR-CWDA-2011-00022), as well as the individual closure modules for each of the waste tanks being closed. Annual inspections of visible engineered barriers and associated maintenance are also the selected remedy for the waste tanks that have been operationally closed as documented in the *Interim Record of Decision, Remedial Alternative Selection for the F-Area Tank Farm, Waste Tanks 17 and 20* (SRR-CWDA-2012-00111), which is applied to additional waste tanks, upon closure, via approved Explanations of Significant Difference. The *SRS Hazardous and Mixed Waste Permit* (SC1 890 008 989) regulates the annual inspections after the closed waste tanks are removed from the Industrial Wastewater permit.

Responsibilities:

Work Control

- Notify the management of the Closure and Waste Disposal Authority (C&WDA) organization when the closed waste tank annual inspection task is initiated by the work control system.
- Close the work control record when closed waste tank annual inspection task is completed.

Closure and Waste Disposal Authority

- Perform an inspection of each closed waste tank with representatives from other organizations, as needed.
- Document and record the inspections as described in the work order task instructions.
- Notify South Carolina Department of Health and Environmental Control (SCDHEC) and United States Environment Protection Agency (EPA) of any unsatisfactory conditions that cannot be remediated within 30 days.
- Ensure corrective actions are assigned, tracked and performed.

Work Order Task Instructions:

1. Determine which waste tanks have been operationally closed and require an inspection.
2. Retrieve the closed waste tank annual inspection task document and associated photographs from the previous year, retained in the Liquid Waste Organization Document Library (LWO DL).

Closed Waste Tank Annual Inspection Instructions

Work Order Task Instructions - continued:

3. Inspect each closed waste tank¹ as detailed below:
 - a. Perform a walk down and visual inspection of the tank top and surrounding area.
 - b. Compare photographs from the previous year to the current condition of the tank top.
 - c. Assess the condition of previous findings.
 - d. Take photographs of the tank top and any unsatisfactory conditions.
4. Complete the Closed Waste Tank Annual Inspection Checklist (i.e., cover sheet and an inspection checklist for each closed waste tank). The checklist includes information describing the waste tank feature of concern and condition of concern for each item to be inspected.
5. Attach photographs to the appropriate inspection checklist.
6. Assign a corrective action for any unsatisfactory condition as detailed below:
 - a. Enter the information required by the STAR system (guidance provided by the system), include an appropriate due date.
 - b. Attach photographs that substantiate the unsatisfactory condition.
 - c. Insert the STAR unique identifier in the appropriate location on the appropriate inspection checklist.
 - d. Attach the necessary electronic files required by the STAR system (e.g., copy of the inspection checklist affected, screen shot of the work request, Request for Engineering Assistance (REA), Nonconformance Report (NCR).
 - e. Notify SCDHEC and EPA within 30 days of identification if the unsatisfactory condition and planned corrective action cannot be remediated within 30 days.
7. Assign the completed Closed Waste Tank Annual Inspection Cover Sheet and Checklist(s) a single LWO DL document number (guidance provided by the library help). Select "C&WDA" for the "Organization" field and include the inspection year as the first characters in the "Title" field.
8. Retain the completed Closed Waste Tank Annual Inspection Checklist Cover Sheet and Checklist(s) as a Tank Farm Area Specific document per the procedure *Tank Closure Wallet (TCW) Documentation Process*, S4-ADM.55.
9. Notify work control that the closed waste tank annual inspection task is complete and return the completed Closed Waste Tank Annual Inspection Checklist Cover Sheet and Checklist(s) documentation.

¹ It is recognized that tank tops are covered by earth, asphalt and/or concrete. The grade level surface of the tank top area is required to be inspected. Excavations to the actual tank top are not intended.

Closed Waste Tank Annual Inspection Checklist

Additional Information to Support the Closed Waste Tank Annual Inspection Checklist

Area of Inspection	Waste Tank Feature of Concern	Condition of Concern (i.e., expected to have potential impact on waste tank modeling)
Excessive cracking or openings in riser caps or tank top	Tank Top Integrity	Cracks in riser caps and/or the waste tank should be minimized such that water infiltration through the tank top is not significantly increased.
Evidence of waste tank elevation changes	Tank Concrete/ Tank Grout Stability	Substantive waste tank elevation changes (sinking or lifting) could result in cracks forming in the Tank Concrete and/or the Tank Grout.
Washed out/eroded soil or sink holes near tank tops	Tank Top Integrity	Washed out/eroded soil or sink holes near tank tops should be minimized such that water infiltration through or mean the tank top is not significantly increased.
Excessive accumulation of water on tank tops	Tank Concrete/ Tank Grout Stability	Inadequate drainage or stormwater system degradation could lead to increased degradation in the Tank Concrete and/or the Tank Grout.
Unstable tank top structure/component	Tank Top Integrity	Structure/component with potential to fail and damage tank top.
Excessive vegetation	Tank Top Integrity	Vegetation should not be allowed to impact the tank top such that water infiltration through the tank top would be significantly increased (e.g., substantial root infiltration).
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	Tank Grout Stability	Leakage of grout material out of risers or waste tank could be indicative of grout degradation.

Closed Waste Tank Annual Inspection Checklist Cover Sheet

Inspection Year: 2021

Number of pages in document including cover page:

35

Date: 4/27/2021 Rev: ∅

Work Order Package Number: 01868409

Preventive Maintenance Number: PM 10 68926

Completed inspection checklists are included in this document for the waste tanks selected below:

- | | | | | |
|---------------------------------------|--|-----------------------------|-----------------------------|-----------------------------|
| <input type="checkbox"/> 1 | <input type="checkbox"/> 11 | <input type="checkbox"/> 21 | <input type="checkbox"/> 31 | <input type="checkbox"/> 41 |
| <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 12 | <input type="checkbox"/> 22 | <input type="checkbox"/> 32 | <input type="checkbox"/> 42 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 13 | <input type="checkbox"/> 23 | <input type="checkbox"/> 33 | <input type="checkbox"/> 43 |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 14 | <input type="checkbox"/> 24 | <input type="checkbox"/> 34 | <input type="checkbox"/> 44 |
| <input checked="" type="checkbox"/> 5 | <input type="checkbox"/> 15 | <input type="checkbox"/> 25 | <input type="checkbox"/> 35 | <input type="checkbox"/> 45 |
| <input checked="" type="checkbox"/> 6 | <input checked="" type="checkbox"/> 16 | <input type="checkbox"/> 26 | <input type="checkbox"/> 36 | <input type="checkbox"/> 46 |
| <input type="checkbox"/> 7 | <input checked="" type="checkbox"/> 17 | <input type="checkbox"/> 27 | <input type="checkbox"/> 37 | <input type="checkbox"/> 47 |
| <input type="checkbox"/> 8 | <input checked="" type="checkbox"/> 18 | <input type="checkbox"/> 28 | <input type="checkbox"/> 38 | <input type="checkbox"/> 48 |
| <input type="checkbox"/> 9 | <input checked="" type="checkbox"/> 19 | <input type="checkbox"/> 29 | <input type="checkbox"/> 39 | <input type="checkbox"/> 49 |
| <input type="checkbox"/> 10 | <input checked="" type="checkbox"/> 20 | <input type="checkbox"/> 30 | <input type="checkbox"/> 40 | <input type="checkbox"/> 50 |
| | | | | <input type="checkbox"/> 51 |

Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 5

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):
Bruce Martin WDA/ B-GMA / /
Mark Layton / WDA/ ML / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>					
Excessive cracking or openings in riser caps or tank top	BAM N/C				
Evidence of waste tank elevation changes (sinking or lifting)	BAM N/C				
Washed out/eroded soil or sink holes near tank tops	BAM N/C				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	BAM N/C				
Unstable structure/component with potential to fail and damage tank top	BAM N/C				
Excessive vegetation	BAM N/C				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	BAM N/C				
Other evidence of degradation	BAM N/C				

Comments: No Change. BAM

Closed Waste Tank Annual Inspection Checklist Photos

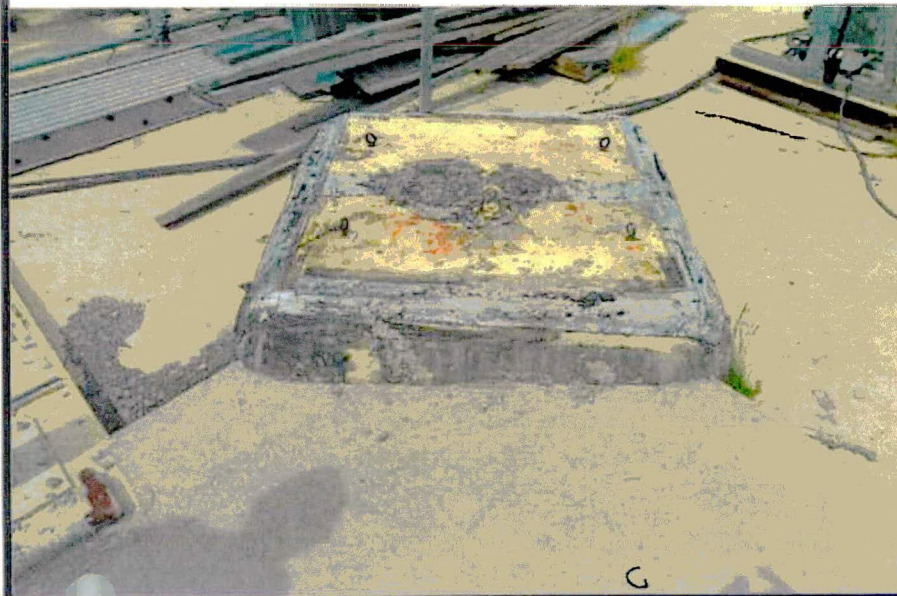
Tank 5, Riser 1



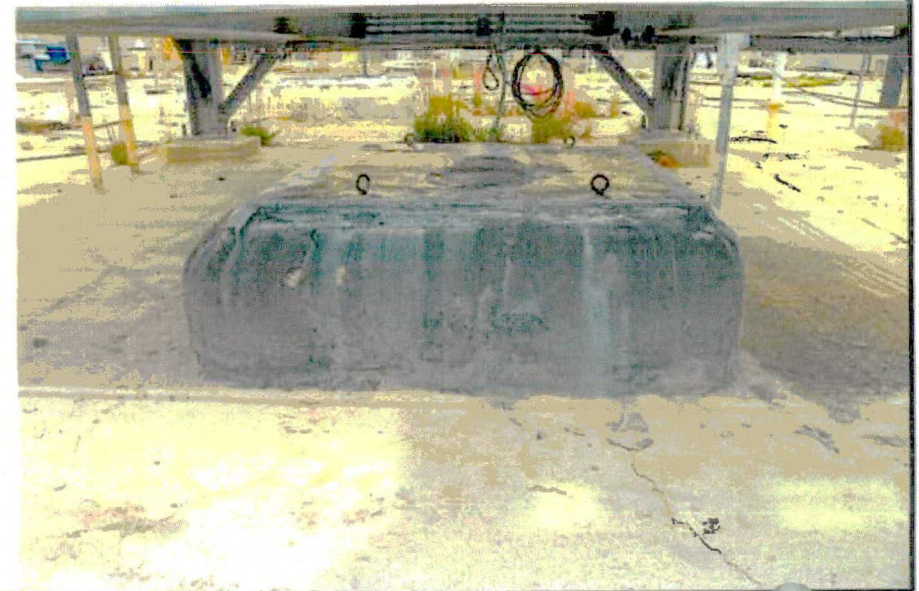
Tank 5, Riser 2



Tank 5, Riser 3



Tank 5, Riser 4



Closed Waste Tank Annual Inspection Checklist Photos

Tank 5, Riser 5



Tank 5, Riser 6



Tank 5, Riser 7



Tank 5, Riser 8



Closed Waste Tank Annual Inspection Checklist Photos

Tank 5, Center Riser



Tank 5, South Annulus Riser



Tank 5, West Annulus Riser



Tank 5, North Annulus Riser



Closed Waste Tank Annual Inspection Checklist Photos

Tank 5, East Annulus Riser



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 6

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):
Bruce Martin WDA/ B-G M / /
Mark Layton / WDA/ ML / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>					
Excessive cracking or openings in riser caps or tank top	BAM ML				
Evidence of waste tank elevation changes (sinking or lifting)	BAM ML				
Washed out/eroded soil or sink holes near tank tops	BAM ML				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	BAM ML				
Unstable structure/component with potential to fail and damage tank top	BAM ML				
Excessive vegetation	BAM ML				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	BAM ML				
Other evidence of degradation	BAM ML				

Comments: No Change. BAM ML

Closed Waste Tank Annual Inspection Checklist Photos

Tank 6, Riser 1



Tank 6, Riser 2



Tank 6, Riser 3



Tank 6, Riser 4

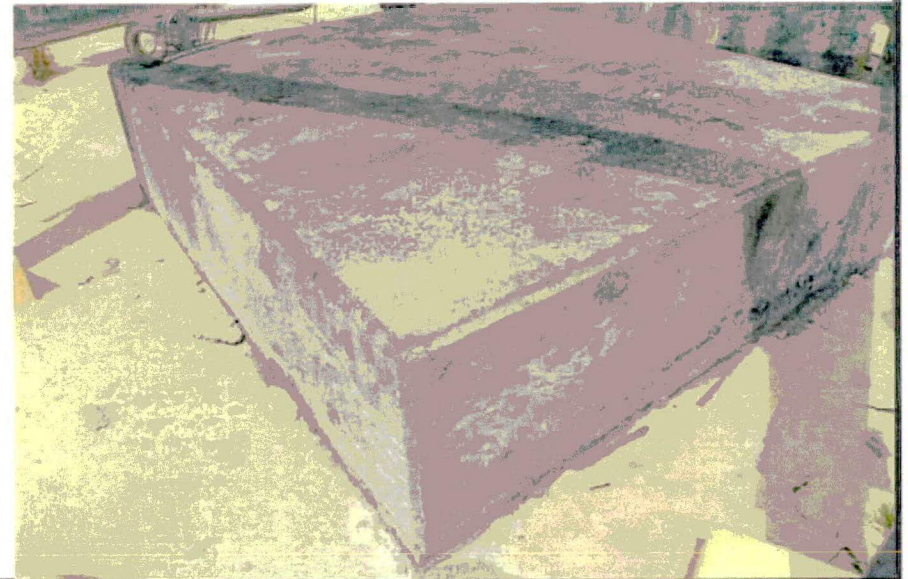


Closed Waste Tank Annual Inspection Checklist Photos

Tank 6, Riser 5



Tank 6, Riser 6



Tank 6, Riser 7



Tank 6, Riser 8



Closed Waste Tank Annual Inspection Checklist Photos

Tank 6, Center Riser



Tank 6, South Annulus Riser



Tank 6, West Annulus Riser



Tank 6, North Annulus Riser



Closed Waste Tank Annual Inspection Checklist Photos

Tank 6, East Annulus Riser



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 12

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):
Bruce Martin WDA / B.A.M. / /
Mark Layton / WDA / M.L. / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/27/2021</u>					
Excessive cracking or openings in riser caps or tank top	<u>BAM</u> <u>M.L.</u>				
Evidence of waste tank elevation changes (sinking or lifting)	<u>BAM</u> <u>M.L.</u>				
Washed out/eroded soil or sink holes near tank tops	<u>BAM</u> <u>M.L.</u>				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	<u>BAM</u> <u>M.L.</u>				
Unstable structure/component with potential to fail and damage tank top	<u>BAM</u> <u>M.L.</u>				
Excessive vegetation	<u>BAM</u> <u>M.L.</u>				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	<u>BAM</u> <u>M.L.</u>				
Other evidence of degradation	<u>BAM</u> <u>M.L.</u>				

Comments:
No change.
BAM
M.L.

Closed Waste Tank Annual Inspection Checklist Photos

Tank 12, Riser 1



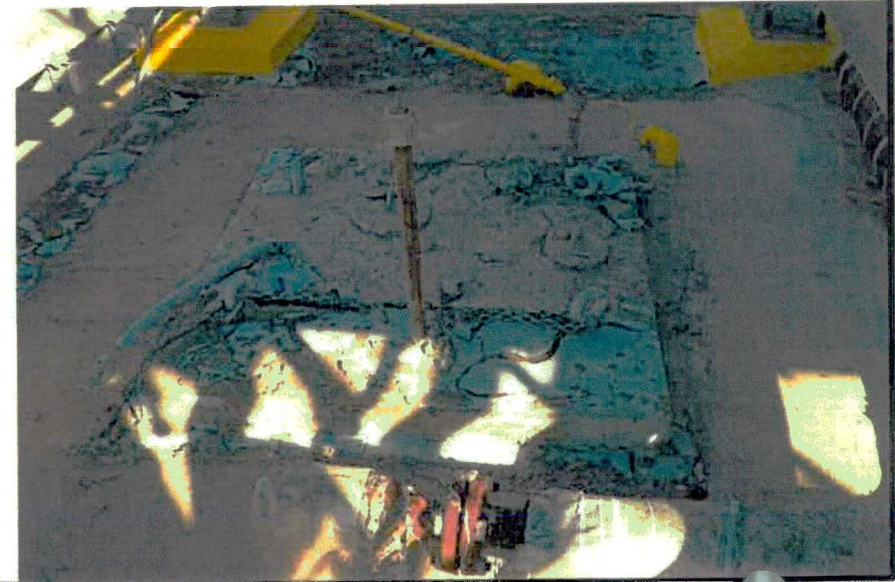
Tank 12, Riser 2



Tank 12, Riser 3



Tank 12, Riser 4



Closed Waste Tank Annual Inspection Checklist Photos

Tank 12, Riser 5



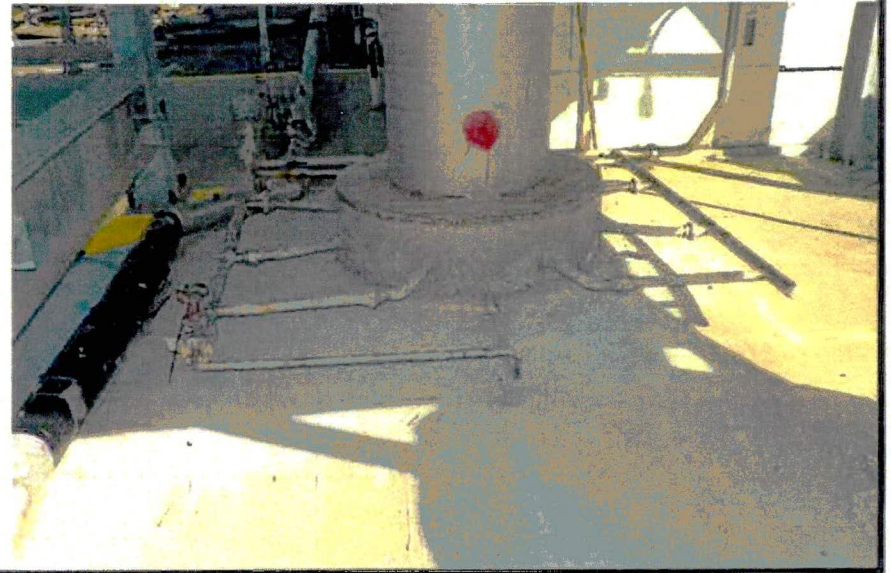
Tank 12, Riser 6



Tank 12, Riser 7



Tank 12, Riser 8



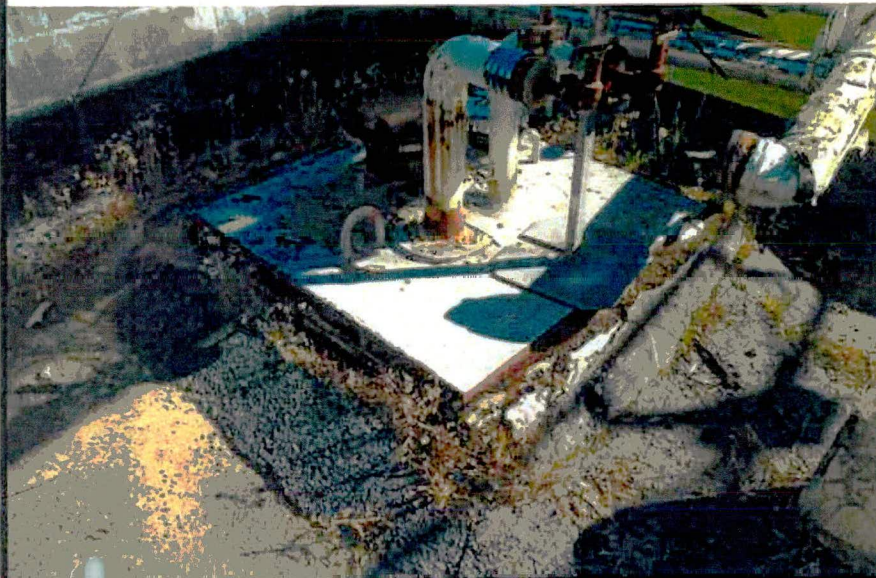
Tank 12, North Annulus Riser



Tank 12, West Annulus Riser



Tank 12, South Annulus Riser



Tank 12, East Annulus Riser



Closed Waste Tank Annual Inspection Checklist Photos

Tank 12, Center Riser



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 16

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

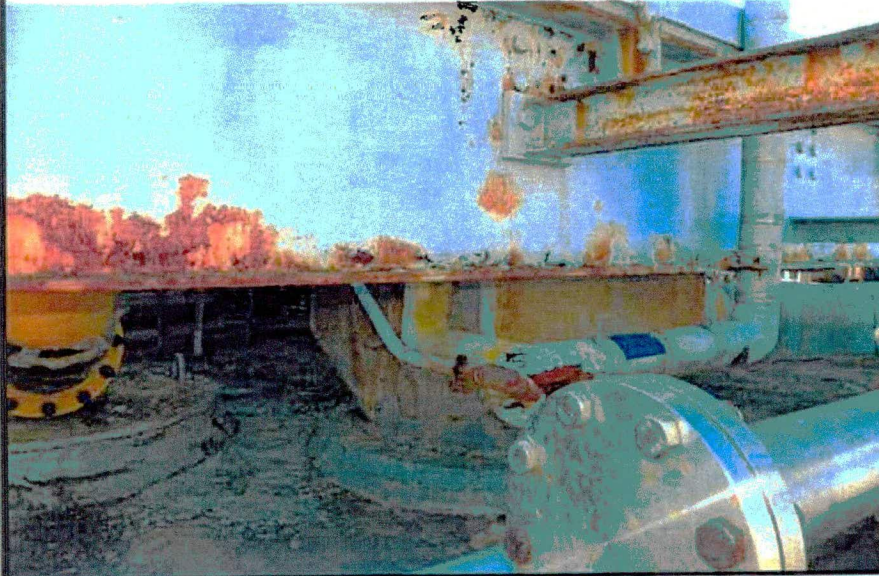
Personnel in Attendance (print name/organization/signature):
Bruce Martin WDA/ B-GWA / /
Mark Layton / WDA/ MLK / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/27/2021</u>					
Excessive cracking or openings in riser caps or tank top	<u>BGM MLK</u>				
Evidence of waste tank elevation changes (sinking or lifting)	<u>BGM MLK</u>				
Washed out/eroded soil or sink holes near tank tops	<u>BGM MLK</u>				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	<u>BGM MLK</u>				
Unstable structure/component with potential to fail and damage tank top	<u>BGM MLK</u>				
Excessive vegetation	<u>BGM MLK</u>				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	<u>BGM MLK</u>				
Other evidence of degradation	<u>BGM MLK</u>				

Comments:
No change.
BGM MLK

Closed Waste Tank Annual Inspection Checklist Photos

Tank 16, Risers 1 and 2



Tank 16, Riser 2A



Tank 16, Riser 3



Tank 16, Risers 4 and 4A



Closed Waste Tank Annual Inspection Checklist Photos

Tank 16, Riser 5



Tank 16, Risers 5, 6, and 7



Tank 16, 3' 6" Riser



Tank 16, Riser 8



Closed Waste Tank Annual Inspection Checklist Photos

Tank 16, West Annulus Riser



Tank 16, North Annulus Riser



Tank 16, South Annulus Riser



Tank 16, East Annulus Riser



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 17

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):

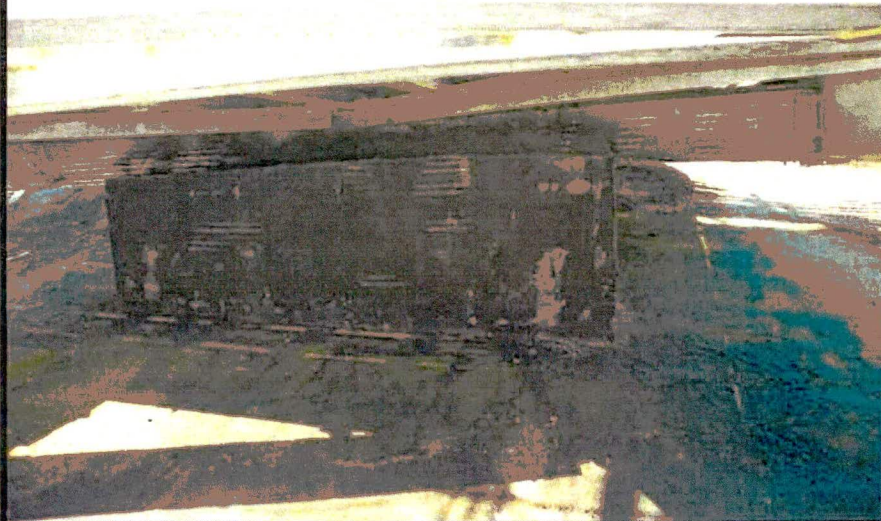
Bruce Martin WDA/ B-UM / /
Mark Layton / WDA/ mly / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>					
Excessive cracking or openings in riser caps or tank top	BAM M/L				
Evidence of waste tank elevation changes (sinking or lifting)	BAM M/L				
Washed out/eroded soil or sink holes near tank tops	BAM M/L				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	BAM M/L				
Unstable structure/component with potential to fail and damage tank top	BAM M/L				
Excessive vegetation	BAM M/L				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	BAM M/L				
Other evidence of degradation	BAM M/L				

Comments:

No Change. BAM
M/L

Tank 17, Southeast Riser



Tank 17, Center Riser (East Side)



Tank 17, Center Riser (West Side)



Tank 17, Southwest Riser (Southwest Corner)



Closed Waste Tank Annual Inspection Checklist Photos

Tank 17, Southwest Riser



Tank 17, West Riser



Tank 17, Northwest Riser



Tank 17, Northeast Riser



Closed Waste Tank Annual Inspection Checklist Photos

Tank 17, East Riser



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 18

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):
Bruce Martin WDA / B-GWA / /
Mark Layton / WDA / MLC / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>					
Excessive cracking or openings in riser caps or tank top	BAM MLC				
Evidence of waste tank elevation changes (sinking or lifting)	BAM MLC				
Washed out/eroded soil or sink holes near tank tops	BAM MLC				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	BAM MLC				
Unstable structure/component with potential to fail and damage tank top	BAM MLC				
Excessive vegetation	BAM MLC				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	BAM MLC				
Other evidence of degradation	BAM MLC				

Comments:
No Change. BAM
MLC

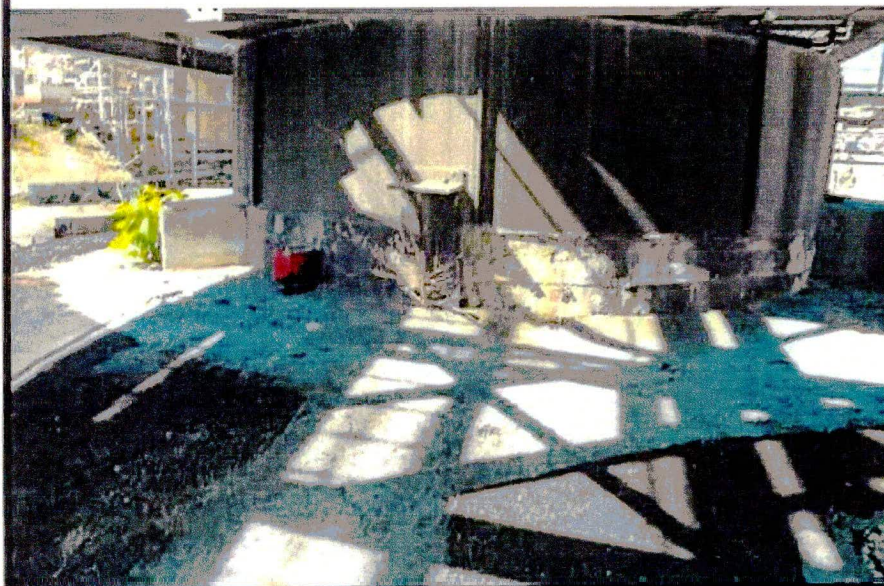
Tank 18, West Riser



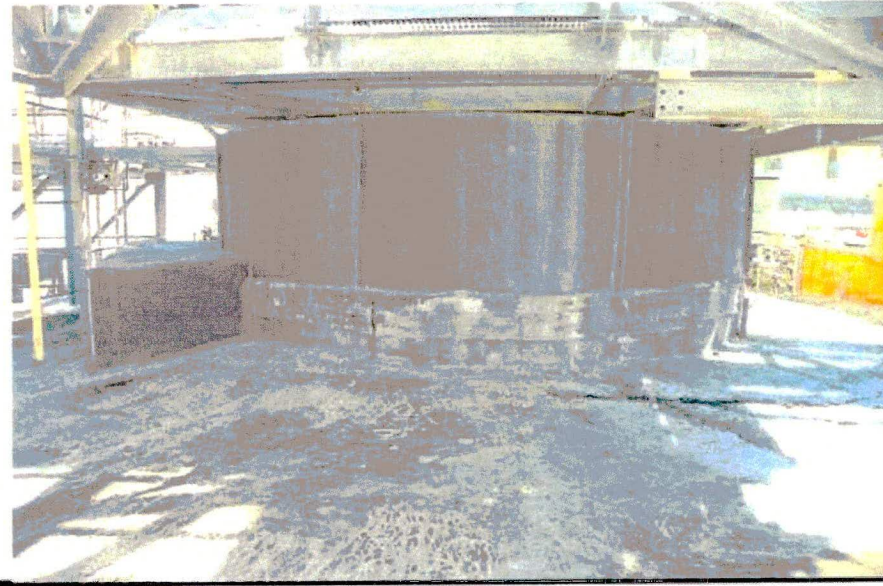
Tank 18, Northwest Riser



Tank 18, Center Riser (East Side)



Tank 18, Center Riser (West Side)



Closed Waste Tank Annual Inspection Checklist Photos

Tank 18, Northeast Riser



Tank 18, Depression North of East Riser



Tank 18, East Riser



Tank 18, Southeast Riser

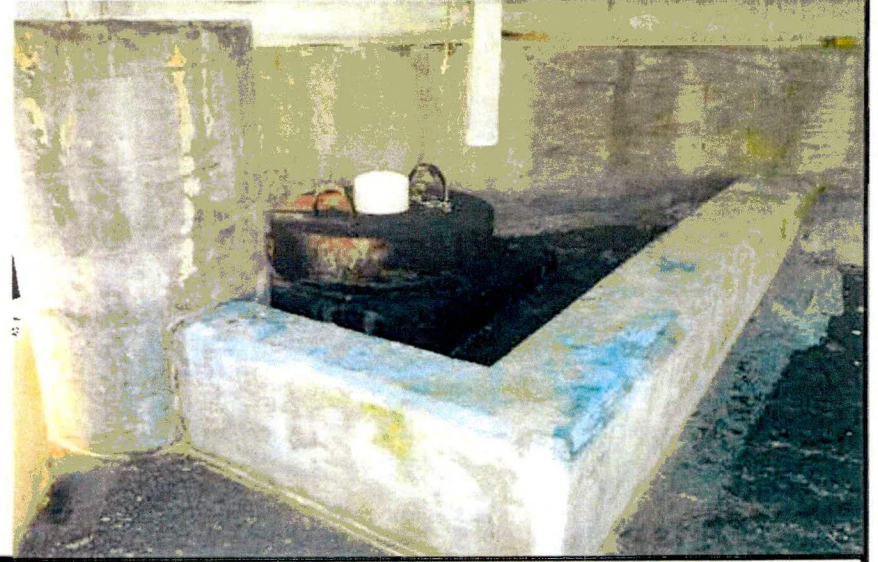


Closed Waste Tank Annual Inspection Checklist Photos

Tank 18, Southwest Riser



Tank 18, Northeast Riser, Underliner Sump



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 19

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):

Bruce Martin WDA/ B-GMA / /
Mark Layton / WDA/ ML / /
 / / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>					
Excessive cracking or openings in riser caps or tank top	<u>BAM</u> <u>ML</u>				
Evidence of waste tank elevation changes (sinking or lifting)	<u>BAM</u> <u>ML</u>				
Washed out/eroded soil or sink holes near tank tops	<u>BAM</u> <u>ML</u>				
Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.	<u>BAM</u> <u>ML</u>				
Unstable structure/component with potential to fail and damage tank top	<u>BAM</u> <u>ML</u>				
Excessive vegetation	<u>BAM</u> <u>ML</u>				
Indication of leakage of grout material out of risers or waste tank (discoloration or staining)	<u>BAM</u> <u>ML</u>				
Other evidence of degradation	<u>BAM</u> <u>ML</u>				

Comments:

No Change. BAM
ML

Closed Waste Tank Annual Inspection Checklist Photos

Tank 19, Southeast Riser and Ventilation Riser



Tank 19, Southwest Riser



Tank 19, Center Riser (South Side)



Tank 19, Center Riser (North Side)



Closed Waste Tank Annual Inspection Checklist Photos

Tank 19, West Riser



Tank 19, Northwest Riser



Tank 19, Northwest Riser (Crack on South Side)



Tank 19, North Sample Riser



Tank 19, Northeast Riser



Tank 19, East Riser



Tank 19, Northeast Riser, Underliner Sump



Closed Waste Tank Annual Inspection Checklist

Closed Waste Tank Annual Inspection Checklist for Waste Tank Number: 20

Work Order Package Number: 01868409 Date: 4/13/21 Rev: Ø

Personnel in Attendance (print name/organization/signature):

Bruce Martin WDA/ [Signature] / /

Mark Layton / WDA/ [Signature] / /

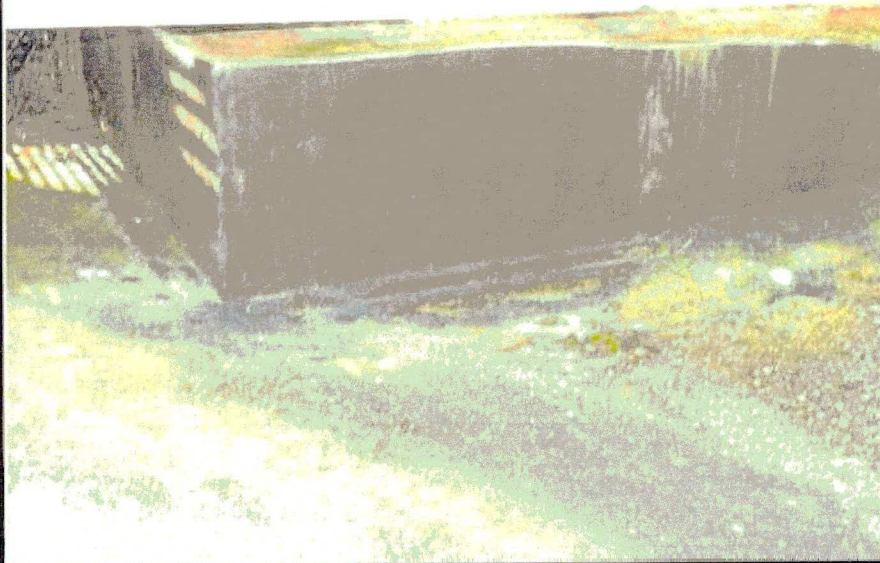
/ / / /

Date of Inspection:	SAT	UNSAT	Description	Corrective Action	Due Date
<u>4/26/2021</u>			Excessive cracking or openings in riser caps or tank top		
	<u>BAM</u> <u>MHC</u>	<u>None</u>			
	<u>BAM</u> <u>MHC</u>		Evidence of waste tank elevation changes (sinking or lifting)		
	<u>BAM</u> <u>MHC</u>		Washed out/eroded soil or sink holes near tank tops		
	<u>BAM</u> <u>MHC</u>		Excessive accumulation of water on tank tops. Evidence of inadequate drainage or stormwater system degradation.		
	<u>BAM</u> <u>MHC</u>		Unstable structure/component with potential to fail and damage tank top		
	<u>BAM</u> <u>MHC</u>		Excessive vegetation		
	<u>BAM</u> <u>MHC</u>		Indication of leakage of grout material out of risers or waste tank (discoloration or staining)		
	<u>BAM</u> <u>MHC</u>		Other evidence of degradation		

Comments:
No Change. BAM
MHC

Closed Waste Tank Annual Inspection Checklist Photos

Tank 20, West Riser



Tank 20, Northwest Riser



Tank 20, Center Riser (North Side)



Tank 20, Center Riser (South Side)



Closed Waste Tank Annual Inspection Checklist Photos

Tank 20, Northeast Riser



Tank 20, East Riser



Tank 20, Southeast Riser



Tank 20, Southwest Riser and Ventilation Riser

