FORM EQP 5111 ATTACHMENT A5
INSPECTION REQUIREMENTS

This document is an attachment to the Gage Products Company's (Gage) 2024 RCRA permit renewal application Form EQP 5111. The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being R 299.9504, R 299.9508, R 299.9605 and Title 40 of the Code of Federal Regulations (CFR) §§264.15 and 270.14(b)(5), establish requirements for inspections at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003

This license application attachment addresses requirements for inspections at Gage's Limited Storage Facility (Gage LSF) located in Ferndale, Michigan.

☒ Applicant for Operating License for Existing Facility

☐ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

Sections listed in the table of contents below that are not applicable to the Gage LSF permit renewal are denoted with a strikethrough and the corresponding section has been deleted from the text. This attachment is organized as follows:

LIST OF TABLES

LIST OF APPENDICES

INTRODUCTION

Gage LSF conducts regular inspections of the LSF, including its associated tank farm and all ancillary equipment. The facility's structures and equipment, including monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, are inspected routinely by plant personnel to identify malfunctions, deterioration, operator errors, and any other situation that may lead to the release of hazardous materials or be a threat to human health or the environment.

A5.A WRITTEN SCHEDULE

[R 299.9605 and 40 CFR §264.15(b)(1)]

Several written work instructions and associated forms have been developed to facilitate facility inspections. The work instructions specify the areas to be inspected, the frequency of each type of inspection, and the type of problems for which to look. The inspector, when identifying a problem, is required to specify the type of problem identified and the remedial action required and to notify management in order to implement remedial action. Completed inspection report forms and the schedule of inspections are kept at the facility. The written schedule, types of problems for which personnel look during the inspection in each area of the facility are discussed in the following sections and outlined in Tables A5.A.1-1, A5.A.1-2, and A5.A.1-3. Copies of the most current inspection forms can be found in this attachments Appendices (Appendix A5-1,2,3,4,5,6).

A5.A.1 Types of Problems

[R 299.9605 and 40 CFR §264.15(b)(3)]

A5.A.1(i) Tank Inspection

The Gage LSF hazardous-waste storage tanks are inspected daily and an inspection log is maintained. The shell and seams of each tank are visually inspected for any signs of erosion, corrosion, or leaks. The tank containment structures, such as the dike walls, as well as floors and spill transfer equipment, are inspected daily for erosion, cracks, leaks, or malfunctions. Visual inspections of the tank bottoms are made via manways in the side of the skirts. Pumps, piping, hose, valves, and fittings are also inspected for any signs of corrosion, leaks, malfunctions, or evidence of operator errors. The area immediately surrounding the tanks is inspected weekly to detect signs of leakage. A roof covers the tank storage area. Therefore, minimal precipitation accumulates in the containment area. See Table A5.A.1-1 for the type of problem inspection schedule.

Other equipment associated with the storage tanks at the facility that is routinely inspected includes: electrical equipment (circuit breakers and control panels), material handling equipment (pumps, hoses, connectors, piping, joints, and valves), monitoring equipment (gauges, overfill alarms), security equipment (fencing, gates and lighting), and safety and emergency equipment (eye wash/showers, water supply valves, alarms, and fire extinguishers).

A5.A.1(ii) Container Inspection

The hazardous-waste container storage and unloading areas are checked by an operator or assistant operator at the frequency specified in the inspection schedule. The number, condition, labeling, and spacing of each drum in the storage bays are noted. Each drum is also checked for corrosion, damage, excessive wear, and leakage. The container storage and unloading areas are inspected daily to determine if any releases have occurred. Potential types of problems that may be encountered in the container area are provided on the inspection form to help ensure a thorough inspection. See Table A5.A.1-2 for the type of problem inspection schedule.

A5.A.2 Frequency of Inspection

[R 299.9605 and 40 CFR §§264.15(b)(4), 264.174, 264.193, 264.195, 264.226, 264.254, 264.278, 264.303, 264.347, 264.602, 264.1033, 264.1052, 264.1053, 264.1058, and 264.1083 through 264.1089, where applicable]

Inspection frequency has been provided in Tables A5.A.1-1, A5.A.1-2, and A5.A.1-3 below.

Table A5.A.1 1 HW TANK STORAGE AREAS INSPECTION SCHEDULE

HAZARDOUS-WASTE STORAGE TANKS INSPECTION SCHEDULE LIMITED STORAGE FACILITY		
Equipment	**Type of Problem**	**Frequency**
Security	Damage Malfunction No access	Weekly
Safety/emergency	Malfunction Out of place Reload	Weekly
Tank shells	Erosion or corrosion Cracks Leaks Operator error	Daily
Tank Squirt Protection	Erosion or corrosion Cracks Leaks	Weekly
Tank overfill control system	Inoperable Malfunctioning	Daily
Material transfer	Corrosion Leaks Malfunction Evidence of spills	Daily
Material handling	Malfunction Damage Operator error Evidence of spills	Daily
Electrical	Malfunction Damage Operator error	Daily
Containment structure	Erosion Cracks Leaks	Daily
Spill transfer	Malfunction Damage Operator error	Daily
Monitoring	Malfunction Damage Operator error	Daily
Security	Damage	Weekly

HAZARDOUS-WASTE STORAGE TANKS INSPECTION SCHEDULE LIMITED STORAGE FACILITY		
Equipment	**Type of Problem**	**Frequency**
	Malfunction	
Safety/emergency	No access Malfunction Out of place Reload	Weekly

Table A5.A.1 2 HW DRUM STORAGE AREAS INSPECTION SCHEDULE

HAZARDOUS-WASTE DRUM STORAGE INSPECTION SCHEDULE LIMITED STORAGE FACILITY		
Equipment	**Type of Problem**	**Frequency**
Containers	Corrosion Leaks Condition and evidence of abuse Quantity Labeling	Weekly
Containment Area	Evidence of spills or leaks Liquid in the containment area Cracks or other deterioration Aisle spacing, set-back distances Stacking height Number of containers Sump for any accumulations	Weekly
Fire Extinguishers	Operability and previous usage	Weekly
Other Safety Equipment	Not in proper location	Weekly
Warning Signs	Standing and legible	Weekly
Container	Evidence of spills or leaks	Daily
Unloading/Storage	Cracks or other deterioration	Weekly

Table A5.A.1 3 HW UNLOADING AREA INSPECTION SCHEDULE

HAZARDOUS-WASTE UNLOADING AREA INSPECTION SCHEDULE LIMITED STORAGE FACILITY		
Equipment	**Type of Problem**	**Frequency**
Material Transfer Pumps	Corrosion Leaks Malfunction Evidence of spills	Daily
Material Handling	Malfunction Damage Operator error Evidence of spills	Daily
Electrical	Malfunction Damage Operator error	Daily
Containment Structure	Erosion Cracks	Daily
Floor and Sumps	Leaks Malfunction Damage	Daily
Spill Transfer	Operator error Malfunction	Daily
Monitoring	Damage Operator error	Daily
Container Unloading Area	Damage Spills Operator error	Daily
Security	Malfunction No access	Weekly
Safety/Emergency	Malfunction Out of place Replenish	Weekly

A5.B REMEDY SCHEDULE

[R 299.9605 and 40 CFR §264.15(c)]

If inspections reveal that non-emergency maintenance is needed, a maintenance request will be submitted, and it will be completed as soon as possible to preclude further damage and reduce the need for emergency repairs. If a hazard is imminent or has already occurred, as revealed during the course of an inspection or at any time between inspections, remedial action will be implemented immediately. If indicated by the situation, Gage LSF personnel will notify the appropriate authorities as described in the Contingency Plan (Attachment A7). In the event of an emergency involving the release of hazardous constituents to the environment, response efforts will be directed towards containing the hazard, removing it, and decontaminating the affected area according to the procedures outlined in the Contingency Plan.

During an inspection of the hazardous-waste storage tanks and container storage facility, if a tank or container holding hazardous wastes is found to be in poor condition (such as apparent structural defects or evident corrosion and leakage), the hazardous waste is transferred to another tank or container in good condition. In the case of a drum, the drum contents are transferred to, and contained within, another similar drum or suitable salvage or recovery drum.

A5.C INSPECTION LOG OR SUMMARY

[R 299.9605 and 40 CFR §264.15(d)]

The inspection logs for the hazardous-waste drum storage area, the associated tank farm, and ancillary equipment are kept at the facility per related work instructions. As required, records of inspections are kept for at least three years from the date of inspection. Record keeping is discussed in Attachment A1 (Part A).

Appendices

Appendix A5-1

Log sheet, Inspection of Safety, Emergency, and Security Equipment

APPENDIX A5-1
FIRE SAFETY AND SPILL RESPONSE EQUIPMENT INSPECTION CHECKLIST
LIMITED STORAGE FACILITY (LSF) AREA

Grounding and Bonding Equipment (Inspect Once a Month)

Date:	
INSPECTOR INITIALS:	
Grounding Clamps = 6	
#91 LSF Unloading pump east	
#92 LSF Unloading pump west	
#93 LSF transfer/feed pump east	
#94 LSF transfer/feed pump west	
Shipping dock	
J-Max Tote	
Grounding Reels (ceiling) = 3	
Bay 1 (west)	
Bay 2 (center)	
Bay 3 (east)	
Clamps intact?	
Springs adequate?	
Points sharp, clean?	
Points tight?	
Cables intact, not frayed?	
Cables attached to a proper grounding source?	

Storage Tanks: See EHS 039

Fire Extinguishers (Inspect Weekly) = 6

Date:						
INSPECTOR INITIALS:						
Tanker Mezzanine - West						
Tanker Mezzanine - East						
South Man Door						
Fire Suppression System Closet (exterior)						
Northwest Side Door (near to boiler house)						
East Door (next to eyewash/shower unit)						
Extinguishers present, mounted?						
Signs to identify extinguisher locations?						
Extinguishers charged?						
Extinguishers accessible?						
Last date charged?						

Safety and Spill Response Equipment (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
EYEWASH/SAFETY SHOWER						
Eyewash and safety shower in working order?						
Equipment accessible, free of clutter, not blocked?						
SPILL STATION						
Spill (Over-pack) drum filled with unused pads, pillows and socks?						
20-gallon container filled with Nitrile Gloves, Caution Tape, Tyvek Suits, and Disposable Boots?						

Polyethylene shovel, mop and wringer, squeegee & soda ash, located at station?						
FIRE BLANKET = 1						
Along West wall						

Housekeeping and First Aid (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
Clearance maintained around Electrical Panels						
Combustible Materials (debris) removed?						
First Aid Kit – South Wall						
Kit Filled as Per List on Wall?						

Communications (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
Remote Telephones						
Telephone in LSF is operational?						

Exit Doors, Exits, Fencing, and Lighting (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
LSF Structure						
Doors/ exits are unobstructed and operational?						
Adequate lighting?						
Automatic gate along Sillman						
Gate is unobstructed and operational?						
Fence along Sillman						
Fence is in good condition/secure?						

Electrical (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
Outlet and junction boxes in place?						
No exposed wiring or extension cords?						

Fire Hydrant and Signs (Inspect Weekly)

Date:						
INSPECTOR INITIALS:						
Fire Hydrant along Sillman						
Hydrant is accessible/unobstructed?						
No evidence of damage?						
Signs						
Yellow-colored Unauthorized Entry Signs posted and visible/readable?						
Flammable/No Smoking sign posted and visible/readable on automatic gate?						

Viking Dry Pipe Sprinkler System Inspection (Inspect Weekly, Monthly)

Date:						
INSPECTOR INITIALS:						
WEEKLY						
The Pressure Valve Readings (psi) – Zone 1 (Standpipe 1):						
Supply Static Pressure						
Discharge Static Pressure						
The Pressure Valve Readings (psi) – Zone 2 (Standpipe 2):						
Supply Static Pressure						
Discharge Static Pressure						
MONTHLY						
The Water Supply Valve is Locked Open?						
Main Drain Valves are Locked Closed?						
Pressure Valves are Locked Open?						
QUARTERLY						
Alarm Devices						
Free from Physical Damage?						

Refer to Work Instruction: FSG-WI-011 Sprinkler System Procedures - Inspection and Testing
NOTE: If static pressure is less than 30 psi, check for leaks, and write out a “priority” maintenance request.

Describe corrective measures needed, contact, and date completed, below:

_____

_____

_____

Appendix A5-2

Weekly Limited Storage Facility Inspection Checklists

APPENDIX A5-2
WEEKLY LIMITED STORAGE FACILITY (LSF) INSPECTION

Products Company

WEEKLY INSPECTIONS

Inspector Name:					
Date & Time:					
Liquid accumulation: Tanker Containment					
Drum Storage Area					
Tank Storage Farm					
Condition of grating covering containment:					
Spill Control/First Aid/Eyewash are accessible:					
Structural integrity of building:					
Evidence of leaking containers?					
Pavement Integrity:					
Condition of Security Equipment (fences, gates, lighting)					
Evidence of operating equipment malfunction?					
Gages and overfill alarms are powered?					
Any incident of high level alarm during the past week?					

List ALL Discrepancies:

_____
_____
_____
_____

List ALL Actions Taken:

_____
_____
_____
_____
_____
_____

Appendix A5-3

Drum Log Sheet

APPENDIX A5-3
LSF DRUM LOG SHEET

Date Stored	Placed in LSF by: (Print Name)	Onsite or Offsite Waste? (Check One)		RC- /BP- Number	Manifest Number (If Offsite Waste)	Waste Code(s) *Example- D001, D002, D035, F003*	Volume	Location	How will this drum be managed? (Check One)		Date Managed	Managed by: (Print Name)
		Onsite	Offsite						Onsite- Recycle or Pump	Offsite - Send offsite for dis- posal		

Appendix A5-4

Tank Reading Log Sheet

APPENDIX A5-4
TANK READINGS

Date: Time: Taken By:

VOLUME IN STILL	0

TANKER BEHIND 821

X - indicates bottom draining tanks

Waste Tank Capacity:	56,627
Waste Tanks Gallons Full:	
Waste Tanks % Full:	0.0%

TANKERS ON PAD

TW SLOTS	TANK WAGON CARRIER AND NUMBER:	CUSTOMER NAME:	VOLUME (GALLONS):	STATUS:
AW 1#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
LSF 1#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
LSF#2				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
LSF 3#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
SOL 1#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
SOL 2#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER
SOL 3#				☐ PROCESSING ☐ CIRCULATING ☐ NEITHER

TANK WAGONS LOADED FOR DELIVERY

TW CARRIER AND NUMBER	BIN	ITEM CODE
	625STA	
	625STA	
	625STA	
	625STA	
	625STA	
	625STA	
	625STA	
	625STA	

	BIN	ITEM CODE
	625STA	
	625STA	
	625STA	

RAIL CAR INFORMATION

TRACK DESIGNATION	RAIL CAR CARRIER AND NUMBER:	CUSTOMER NAME:	VOLUME (GALLONS):	STATUS:
EAST #1 (HD30-1)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
EAST #2 (HD30-2)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
EAST #3 (HD30-3)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
EAST #4 (HD30-4)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
WEST #1 (FD22-1)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
WEST #2 (FD22-2)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING
WEST #3 (FD22-3)				☐ FULL ☐ EMPTY ☐ UNLOADING ☐ LOADING

REMAN TFE PROCESS DATA

UPPER SEAL LUBE LEVEL	
UPPER SEAL LUBE FLOW	
LOWER SEAL LUBE LEVEL	
LOWER SEAL LUBE FLOW	

INSPECTIONS - LSF AND WASTE STORAGE AREAS

Are there visible cracks or deterioration to any containment areas? (loading/unloading areas, dike, drum storage area)	☐ YES ☐ NO	IF YES, ACTION TAKEN:
Is all electrical equipment working properly? Including tank overfill controls? DATE OF LAST OVERFILL TEST: 5/4/21 T-73	☐ YES ☐ NO	IF YES, WRITE DATE OF LAST OVERFILL TEST IN LOWER LEFT
Is the waste tank system in good condition? Tanks (shell, seams, bottoms), piping, waste pumps, and fittings?	☐ YES ☐ NO	IF NO, ACTION TAKEN:
Are any of the tanks, fittings, or containers leaking?	☐ YES ☐ NO	IF YES, ACTION TAKEN:
Is material accumulated in any of the sumps?	☐ YES ☐ NO	IF YES, ACTION TAKEN:
Gage Hazardous Waste containers have yellow waste labels marked with Waste number(s) and Dates?	☐ YES ☐ NO	IF NO, ACTION TAKEN:
Do hazardous waste containers from offsite have completed green waste labels?	☐ N/A ☐ YES ☐ NO	IF NO, ACTION TAKEN:
Are hazardous waste containers from offsite marked with manifest number(s)?	☐ N/A ☐ YES ☐ NO	IF NO, ACTION TAKEN:
Have any containers exceeded the 90 day storage date?	☐ N/A ☐ YES ☐ NO	IF YES, ACTION TAKEN:
Are there any visible Dents, Rust, or apparent Structural Damage to containers?	☐ N/A ☐ YES ☐ NO	IF YES, ACTION TAKEN:
Are all containers closed?	☐ N/A ☐ YES ☐ NO	IF NO, ACTION TAKEN:

Number of Gage-Generated Hazardous Waste Drums in LSF

Material Description	Drum Count	Drum Volume
BP0001		
WASTE OIL		
SOLVENT WASTE		
WATER WASTE		

Material Description	Drum Count	Drum Volume
BAGS AND RAGS		
BASE WASTE		
ACID WASTE		
SOLID WASTE		

Number of off-site generated hazardous waste drums in LSF:

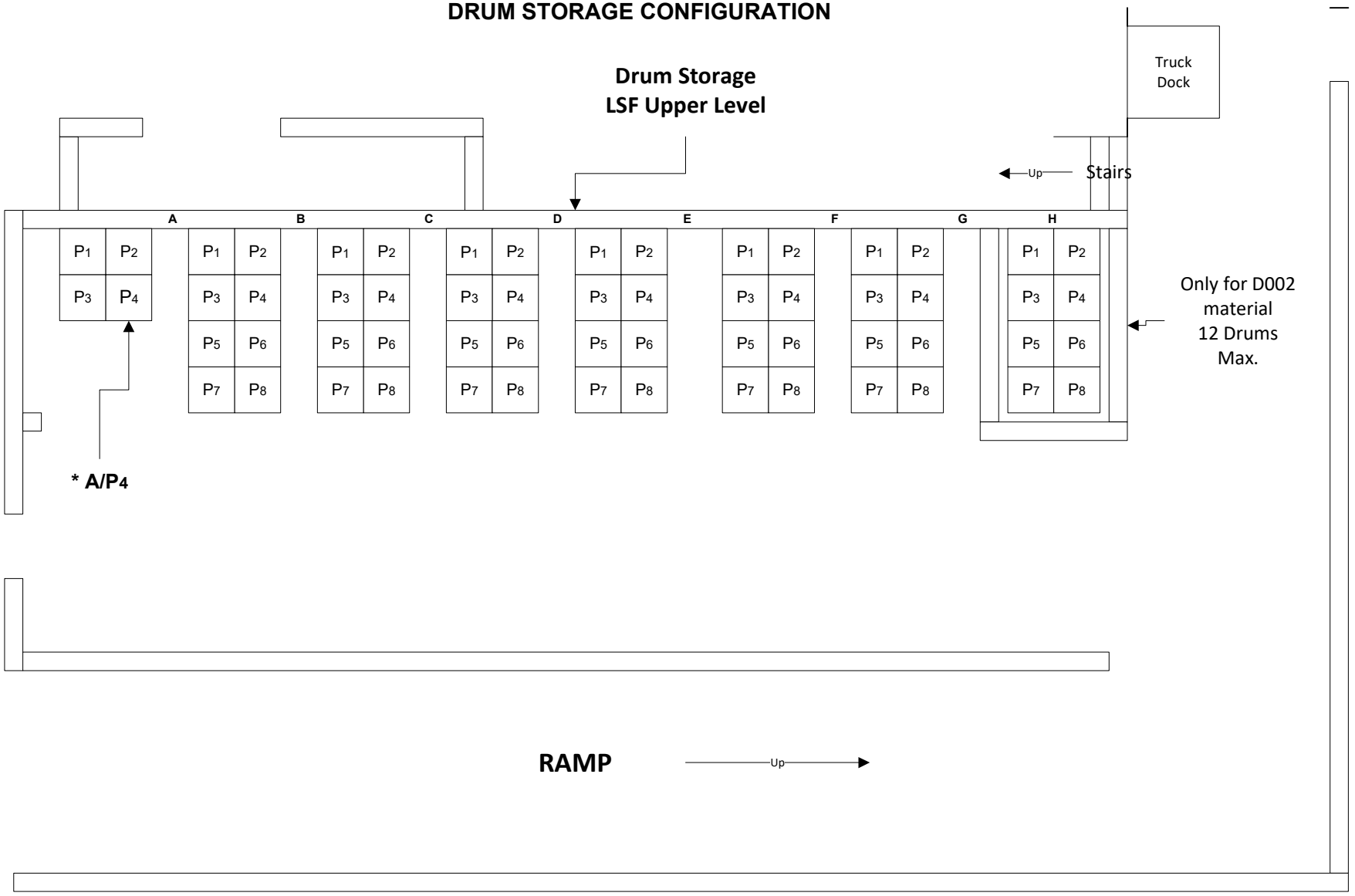
Material Description	APPROVAL #	SOURCE:	MANIFEST #	DRUM COUNT	DRUM VOLUME (GALLONS)

Is any liquid present in Rail Spur Spill Tanks ?	IF YES, TANKS MUST BE PUMPED OUT.
Inspectors Name:	

Appendix A5-5

Drum Storage Configuration

APPENDIX A5-5
DRUM STORAGE CONFIGURATION



Drum Row: (A thru H)

Drum Orientation: (P_1 thru P_8)

Example of Drum Location: *** A/P4**

50 Drums maximum in LSF at one time,also of the 50 no more than 12 drums of D002 material at one time.

Appendix A5-6

Inspection Log of Hazardous Waste Pumps

APPENDIX A5-6
HW PUMP 91 THRU 94 INSPECTIONS

MONTH OF: **Jul-24**

TPM - EQUIPMENT CHECKSHEET (OPERATOR)

LEGEND	1 Day
	N D A

LSF

MACHINE NAME	**PUMP 91**	M/C CODE:		**If condition is X prepare a maintenance request**
If the condition is: "**OK**", mark with √ "**NG**", mark with an **X** "**NA**" mark with an **-**				

LSF RAMP TOP

| | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | | 9 | | | 10 | | | 11 | | | 12 | | | 13 | | | 14 | | | 15 | | | 16 | | | 17 | | | 18 | | | 19 | | | 20 | | | 21 | | | 22 | | | 23 | | | 24 | | | 25 | | | 26 | | | 27 | | | 28 | | | 29 | | | 30 | | | 31 | | |
|---|---|---|---|---

MONTH OF: **Jul-24**

TPM - EQUIPMENT CHECKSHEET (OPERATOR)

LEGEND	1 Day
	N D A

LSF

MACHINE NAME	**PUMP 92**	M/C CODE:	

If the condition is: "**OK**", mark with √ "**NG**", mark with an **X** "**NA**" mark with an **-**

If condition is X prepare a maintenance request

LSF RAMP TOP

NIGHTS - OPERATORS INITIAL	
DAYS - OPERATORS INITIAL	
AFTS - OPERATORS INITIAL	

DAILY

ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A	N D A
Inspect for leaks (pumps & connectors)																															
Unusual noises																															
Oil level in gear box																															
Any Steam Leaks in the Area																															
Any Air Leaks in the Area																															
MAINT CONFIRM'N																															
MGT CONTROL																															

MONTH OF: **Jul-24**

TPM - EQUIPMENT CHECKSHEET (OPERATOR)

LEGEND	1 Day
	N D A

LSF

MACHINE NAME	**PUMP 93**	M/C CODE:	

If the condition is: "**OK**", mark with √ "**NG**", mark with an **X** "**NA**" mark with an **-**

If condition is X prepare a maintenance request

LSF RAMP TOP

| | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | | 9 | | | 10 | | | 11 | | | 12 | | | 13 | | | 14 | | | 15 | | | 16 | | | 17 | | | 18 | | | 19 | | | 20 | | | 21 | | | 22 | | | 23 | | | 24 | | | 25 | | | 26 | | | 27 | | | 28 | | | 29 | | | 30 | | | 31 | | |
|---|---|---|---

MONTH OF: **Jul-24**

TPM - EQUIPMENT CHECKSHEET (OPERATOR)

LEGEND	1 Day
	N D A

LSF

MACHINE NAME	**PUMP 94**	M/C CODE:	

If the condition is: "**OK**", mark with √ "**NG**", mark with an **X** "**NA**" mark with an **-**

If condition is X prepare a maintenance request

LSF RAMP TOP

| | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | | 9 | | | 10 | | | 11 | | | 12 | | | 13 | | | 14 | | | 15 | | | 16 | | | 17 | | | 18 | | | 19 | | | 20 | | | 21 | | | 22 | | | 23 | | | 24 | | | 25 | | | 26 | | | 27 | | | 28 | | | 29 | | | 30 | | | 31 | | |
|---|---|---|---