



Internal Operating Procedure

ISO 9001:2015 SOC NEVADA LLC

DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 1 OF 21

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TITLE:
REFRIGERATION MAINTENANCE PLAN FOR MERCURY STORAGE

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APPROVAL SIGNATURES		
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APPROVED BY <i>Earnest Wood</i>	EARNEST WOOD, DEPUTY DIRECTOR BASE OPERATIONS	DATE 3/11/19
<input type="checkbox"/> INITIAL RELEASE <input type="checkbox"/> ANNUAL REVIEW, NO REVISION REQUIRED <input checked="" type="checkbox"/> ANNUAL REVIEW, REVISION REQUIRED (SEE HISTORY BELOW)		

REVISION HISTORY			
REV	CHANGE DESCRIPTION	AUTHOR	DATE
14	ANNUAL REVIEW: UPDATED SIGNATORY AUTHORITY TO REFLECT CURRENT REQUIRED SIGNATURES. UPDATED DOCUMENT NUMBERS IN REFERENCE DOCUMENTS SECTION AND THROUGHOUT THE DOCUMENT.	CHRISTINA HOLLOWAY	03/2019
13	ANNUAL REVIEW: UPDATED SIGNATORY AUTHORITY TO REFLECT CURRENT REQUIRED SIGNATURES. CHANGED DOCUMENT TO ISO9001:2015 FORMAT. UPDATED TRAINING REPORT ATTACHMENT.	CHRISTINA HOLLOWAY	03/2018
12	ANNUAL REVIEW, UPDATED SIGNATORY AUTHORITY TO REFLECT CURRENT REQUIRED SIGNATURES.	CHRISTINA HOLLOWAY	05/2017

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REFERENCE DOCUMENTS	
DOCUMENT NUMBER	DOCUMENT TITLE
CHEMETRON/ CARDOX- FIRE SYSTEMS MANUALS	FIRE SYSTEM LOW PRESSURE CO ₂ OPERATION & MAINTENANCE MANUALS
QP.GMO.SAF.0003	SOC NEVADA LLC- SAFETY PROGRAM
QP.CAT.TAD.0001	MASTER TRAINING PLAN
SOC.QM.0001	SOC QUALITY MANUAL
SOC.MS.MP.0001	SOC MANAGEMENT PLAN – CONTROL OF DOCUMENTS
SOC.MS.MP.0002	SOC MANAGEMENT PLAN – CONTROL OF QUALITY RECORDS
SOC.MS.MP.0003	SOC MANAGEMENT PLAN – INTERNAL QUALITY AUDITS
SOC.MS.MP.0004	SOC MANAGEMENT PLAN – CONTROL OF NONCONFORMING PRODUCTS/SERVICES
SOC.MS.MP.0005	SOC MANAGEMENT PLAN – CORRECTIVE ACTION RISK MANAGEMENT

DOCUMENTS REFERENCED IN THIS PROCEDURE ARE APPLICABLE TO THE EXTENT SPECIFIED HEREIN.

1. PURPOSE

1.1. The purpose of this IOP is to establish mandatory requirements for the refrigeration system on the CO₂ fire suppression system systems in the 110 group area and to insure that all HWAD refrigeration personnel understand and follow the requirements.

2. SCOPE

2.1 This IOP applies to all refrigeration personnel involved in the maintenance of the refrigeration system on the CO₂ fire suppression systems installed in the 110 group buildings designated for the storage of elemental mercury.

3. DEFINITIONS AND ACRONYMS

- 3.1 CO₂ – Carbon Dioxide
- 3.2 EEED – Emergency Evacuation Breathing Device
- 3.3 EMD - Equipment Maintenance
- 3.4 IAW – In Accordance With
- 3.5 IOP – Internal Operating Procedure
- 3.6 LOTO - Lockout / Tagout
- 3.7 MPH - Maintenance, Planning and Housing
- 3.8 PM – Preventative Maintenance
- 3.9 PSI – Pound per Square Inch

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DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 3 OF 21

SAI GLOBAL
ISO 9001
Quality

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4. FLOWCHART

4.1 There is no flowchart for this document.

5. RESPONSIBILITIES

- 5.1 Supervisor must insure a maintenance program is in place and maintenance is performed IAW this IOP.
- 5.2 Maintenance personnel must ensure that all procedures in this IOP are followed.
- 5.3 Maintenance personnel will have the work order at the site where work is being performed.
- 5.4 Before any maintenance is performed to the CO₂ System, the system must be brought to a zero energy state in accordance with lock out / tag out procedures.
- 5.5 Should maintenance be required on the interior of the warehouse, maintenance personnel will have EEBD (Emergency Escape Breathing Device) attached to themselves and ensure all four (4) warehouse doors are open for emergency egress.

6. PROCEDURE

- 6.1 CO₂ pressure control switch checks
 - 6.1.1 Remove refrigeration housing cover.
 - 6.1.2 Disconnect power to alarm circuit at circuit breaker #8 at main panel board 110-Y-XX and apply LO/TO tag.
 - 6.1.3 Close the gauge vapor supply valve.
 - 6.1.4 Open the liquid level pressure equalizing valve to balance pressure across the bellows.
 - 6.1.5 Remove test port plug located inside the control cabinet.
 - a. Care should be taken when loosening the test port plug to allow pressure to escape slowly. The storage unit pressure gauge should read 0 PSI and the compressor should not be operating.
 - 6.1.6. Connect a carbon dioxide or nitrogen cylinder with a pressure regulator capable of supplying constant pressure in the range of 250 to 340 PSI to the test port.
 - 6.1.7. Gradually increase pressure until the storage unit pressure gauge reads 310 PSI.

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6. PROCEDURE (CONTINUED)

NOTE: Check the accuracy of the storage pressure gauge against a source of known pressure. If the gauge reading is inaccurate, it shall be replaced.

- a. The compressor will automatically shut off when pressure is below 290 PSI.
 - b. The compressor will automatically restart between 295 and 310 PSI.
 - c. The compressor will be on when pressure is above 310 PSI.
- 6.1.8. Gradually decrease pressure from 310 PSI to 0 PSI. Note the following conditions:
- a. The compressor should be off when pressure is below 290 PSI.
 - b. The compressor should turn on between 295 and 310 PSI.
 - c. The compressor should be on when pressure is above 310 PSI.
- 6.1.9. If all of the above conditions are met, no adjustment of the CO₂ pressure control switch is necessary. In that case, restore the system to its normal conditions as follows:
- a. Remove carbon dioxide or nitrogen cylinder and pressure regulating valve from test port.
 - b. Replace test port plug inside control cabinet.
 - c. Open pressure gauge shut-off valve.
 - d. Verify the liquid level gauge liquid supply valve is open.
 - e. Remove LO/TO and reconnect alarm circuit power
 - f. Replace refrigeration unit housing cover.
- 6.2. Checking compressor pressure safety switches
- 6.2.1. Low Pressure cut out – (All units) this side of the low pressure side switch is used in control of the refrigeration system and the pump down cycle. It also prevents the compressor from drawing the system into a vacuum and possibly damaging the refrigeration system components. The mechanism on the low pressure side operates independently of the high pressure side. The electrical circuit closes when the suction pressure drops below the cut-in setting (18 PSI) and opens when the suction pressure drops below the cut-out setting (6 – 8 PSI). Cut in and cut out are both automatic. This low pressure side switch includes the adjustable differential and does not require manual resetting.



DOCUMENT No. BOP.IOP.EMB.1300
REV. 14
PAGE 5 OF 21

SAI GLOBAL
ISO 9001
Quality

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6. PROCEDURE (CONTINUED)

NOTE: To avoid compressor damage, the two compressor service valves must be operated very slowly and they must never be completely closed.

- 6.2.2. Checking – to check the refrigerant pressure control switch settings, proceed as follows:
- a. Verify suction and discharge services valves are open.
 - b. Remove the protective stem from the suction service valve and the discharge service valve.
 - c. Turn the stem on each service valve counter clockwise out as far as it will go. This will close off the gauge ports. Remove the plug from each pressure gauge test port.
 - d. Use a commercial refrigeration manifold gauge assembly to check the suction and discharge pressures.
 - e. Install pressure control switch jumper wire to start the compressor, making sure the suction and discharge service valves is open.
 - f. Check the suction pressure setting of the refrigerant pressure control switch as follows:
 - Slowly turn the stem of the suction valve clockwise to shut off the suction side of the compressor. When the valve is nearly closed, suction pressure will begin to drop. Note the following conditions; when the suction pressure drops to 6 – 8 PSI, the switch should cut out (open) and stop the suction service valve to allow the suction pressure to rise. When it reaches approximately 18 PSI, the switch should cut in (close) and start the compressor.
 - If the above conditions are met, no adjustment of the suction setting of the switch is required. In this case, completely reopen the suction service valve by turning counter clockwise as far as it will go.
 - If the suction setting requires no adjustment, restore the system to its normal operating conditions as follows:
 - Make sure both compressor services valve are fully open
 - Replace the protective stem covers.
 - Remove the manifold gauge assembly and replace both test port plugs.
 - Remove jumper wire from refrigeration pressure control switch.
 - If the suction setting requires no adjustment, restore the system to its normal operating conditions as follows:

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6. PROCEDURE (CONTINUED)

- Make sure both compressor services valve are fully open.
- Replace the protective stem covers.
- Remove the manifold gauge assembly and replace both test port plugs.
- Remove jumper wire from refrigeration pressure control switch.

6.2.3 Adjusting – the refrigerant pressure control is adjusted with three screws located on top of the control switch.

- a. Low pressure range cut in (suction side) adjusting screw. This screw should be adjusted to automatically cut in at 18 PSI, starting the compressor.
- b. Low pressure differential cut out (suction side) adjusting screw. This screw should be adjusted to automatically cut out at 0 PSI, stopping the compressor.
- c. High pressure range cut out (discharge side) adjusting screw. This screw should be adjusted to automatically cut out at 450 PSI, stopping the compressor and automatically tripping a manual reset.

6.2.4 Suction Pressure – To adjust the suction pressure settings, proceed as follows:

- a. Slowly close the suction service valve until the compressor stops operating and then reopen the suction valve completely.
- b. Observe the pressure at which the compressor starts operating. If the compressor starts before 18 PSI, raise the cut in setting by turning the low pressure range screw counter clockwise. If the compressor starts above 18 PSI, lower the cut in setting by turning the low pressure range screw clockwise.

NOTE: The differential on either side is not affected by this adjustment.

- c. Repeat steps above until the switch starts the compressor at approximately 18 PSI

6.2.5 Differential settings – to adjust the differential setting (suction side) proceed as follows:

NOTE: This adjustment is done after the suction pressure is adjusted as described above.

- a. Slowly close the suction pressure valve until the compressor stops operating and observe the pressure at which the compressor stops operating. Reopen the suction service valve completely. If the compressor stops above 6 – 8 PSI, lower the cut out setting by turning the low pressure differential screw clockwise to increase the



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6. PROCEDURE (CONTINUED)

- b. differential. If the compressor stops below 6 – 8 PSI, raise the cut out setting by turning the low pressure differential screw counter clockwise to decrease the differential.

NOTE: The other settings are not affected by this adjustment.

- 6.2.6 Discharge Pressure – Slowly close the discharge service valve until the compressor stops operating and observe the pressure at which the compressor stops operating. Reopen the discharge service valve completely.

NOTE: To avoid compressor damage, the compressor service valve must be closed very slowly, never permitting the discharge pressure to exceed 500 PSI.

- a. If the compressor stops below 450 PSI, raise the cut out setting by turning the high pressure range screw counter clockwise.
- b. If the compressor stops above 450 PSI, lower the cut out setting by turning the high pressure range screw clockwise.
- c. After the pressure on the high side drops at least 60 PSI from the cut out point, depress the high pressure manual reset button to close switch contacts. The compressor should start.

NOTE: The switch contacts can be closed only when the discharge pressure drops below the high pressure fixed differential of approximately 60 PSI and when the manual reset button is pushed.

- d. Repeat steps a and b above until the switch stops the compressor at 450 PSI.
 - Once the suction and discharge pressure settings are properly set, restore the system to its normal operating conditions. See step 6.2.2 f

6.3 Alarm pressure switch checks

- 6.3.1 To check the alarm pressure switch actuation settings, proceed as follows:
 - a. Remove refrigeration unit housing cover gauge shut off valve corner, and the control cabinet access cover.
 - b. Remove LO/TO tag and turn on power (See 6.1.2).
 - c. Open the liquid level gauge equalizing valve.
 - d. Close the liquid level gauge supply valve.



DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 8 OF 21

SAI GLOBAL
ISO 9001
Quality

TITLE:

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6. PROCEDURE (CONTINUED)

- e. Close the gauge vapor supply valve.
 - e. Remove test port plug located inside the control cabinet.
 - f. Connect a carbon dioxide or nitrogen cylinder with calibrated pressure regulating valve to the test port.
 - g. Gradually increase pressure until the storage unit pressure gauge reads 330 PSI.
 - Note the following conditions:
 - The alarm should be sounding at 0 PSI pressure and it should continue sounding at any pressure below 270 PSI.
 - The alarm should be silent between 280 and 320 PSI.
 - The alarm should be sounding at any pressure greater than 330 PSI
 - h. Gradually decrease pressure from 330 PSI to 0 PSI.
 - Note the following conditions:
 - The alarm should be sounding at any pressure above 330 PSI.
 - The alarm should be silent between 320 and 280 PSI.
 - The alarm should sound continuously at any pressure between 270 and 0 PSI.
- 6.3.2. If all the above conditions are met, no adjustments of the alarm pressure switch are necessary. In this case, restore the system to its normal condition as follows:
- a. Remove carbon dioxide or nitrogen cylinder and pressure regulating valve from test port, and reinstall test port into appropriate cylinder.
 - b. Open the pressure gauge shut off valve.
 - c. Close the liquid level gauge equalizing valve.
 - d. Open the liquid level gauge liquid supply valve.
 - e. Replace the protective covers on gauge shut off valves.
 - f. Replace the refrigeration housing cover and the control cabinet access cover.
 - If the alarm pressure switch is not functioning as outlined above, see below for adjusting.



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6. PROCEDURE (CONTINUED)

6.3.3. Adjusting – the alarm pressure switch should sound the alarm when the storage tank reaches a high pressure of 320 – 330 PSI and when it reaches a low pressure of 280 – 270 PSI. The alarm will sound at a high pressure of 325 PSI and a low pressure of 275 PSI. To avoid the alarm pressure switch actuation settings, proceed as follows:

- a. Remove the refrigeration unit housing cover and the control cabinet access cover.
- b. Verify alarm circuit power is on
- c. Open the liquid level gauge equalizing valve
- d. Close the liquid level gauge liquid supply valve
- e. Close the gauge vapor supply valve.
- f. Loosen the flare fitting at the outlet of the gauge vapor supply valve to vent residual pressure in the gauge tubing. After pressure is vented, retighten the fitting.
- g. Remove test port plug located inside the control cabinet

NOTE: Care should be taken when loosening the test port plug to allow pressure to escape slowly. The storage unit pressure gauge should read 0 PSI and the alarm should sound.

- h. Connect a carbon dioxide or nitrogen cylinder with pressure regulating valve capable of supplying constant pressure in the range of 250psi to 340psi to the test port.
- i. Remove the alarm pressure switch cover.

NOTE: Electrical voltages will be present on the switch terminals.

- j. To adjust the high pressure alarm setting (320 – 270 PSI), slowly adjust regulator output pressure gauge reads 325 PSI.
 - If alarm bell is ringing, slowly adjust lower cut in adjustment screw counter clockwise until alarm stops.
 - If alarm bell is not ringing, slowly rotate upper cut in adjustment screw counter clockwise until alarm starts ringing.
- k. To adjust the low pressure alarm setting (280 – 270 PSI), slowly reduce regulator output pressure from 325 PSI until pressure gauge reads 275 PSI.



DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 10 OF 21

SAI GLOBAL
ISO 9001
Quality

TITLE:

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6. PROCEDURE (CONTINUED)

- If alarm bell is ringing, slowly adjust lower cut in adjustment screw counter clockwise until alarm stops.
- If alarm bell is not ringing, slowly rotate lower cut in adjustment screw clockwise until alarm starts.

l. The alarm bell is now roughly set to sound between 320 and 330 PSI. Repeat steps k and l until the settings are within the proper ranges.

m. Reinstall refrigeration unit housing cover and the control cabinet access cover.

n. Verify LO/TO has been removed and power is on.

6.4 Safety Relief Valves:

1.1.1. Will pressure test safety relief valves, Bi-Annually and replace defective valves as needed in accordance with Chemetron Maintenance Manual. Lock out / tag out using appropriate device.

6.4 Part Replacement and Quality Control

6.5.1 Part replacement will occur as needed or required by operation maintenance procedures.

a. All parts removal / replacement shall be performed in accordance with instructions cited in the vendors Operation and Maintenance Manuals or Best Engineering Practices. If there are competing instructions or recommendations, the most conservative (personnel safety protective) instructions will be followed (see step 6.5.2.2).

b. Check shop parts storage for replacement part availability. If the part / component is available, confirm part model number with review by the shop Supervisor. Once the part has been verified, then proceed with replacement.

6.5.2. If parts / components are not available from shop supply, the part / component will be ordered as follows:

a. Replacement parts / components shall be replacement in kind

b. If a replacement in kind part / component is not available, the proposed replacement part / component shall be subject to review by the Mechanical Integrity Team as described in the Tier 1 Procedure to ensure that it is suitable for the process in which it will be used. This process shall be subject to Management of Change, Process Safety Information (PSI), Pre-Startup Safety Review (PSSR) and, if warranted, a Process Hazard Analysis (PHA).

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DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 11 OF 21

SAI GLOBAL
ISO 9001
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6. PROCEDURE (CONTINUED)

- c. Check the part model number and compare it with the as-built drawings and the MAXIMO parts listing.
- d. Order the part / component; ordering of the part / component shall be in writing to the Maintenance Section.
- e. During the process of ordering the part / component, a second check shall be performed against MAXIMO to ensure accuracy of the part / component.
- f. The Purchase Request will be submitted to Manager of Quality Control for analysis in the Government Industry Data Exchange Program (GIDEP) to ensure vendor acceptability prior to submission of Purchase Request to the Purchasing Agent.

6.5.3 When the ordered part / component is received, verify the correct part model number against the part order form. Shop Supervisor will also confirm the correct part model number has been received prior to use and replacement of the defective part / component.

- a. Any staff member discovering a nonconforming item or material (including suspect/counterfeit items) notifies their manager to initiate resolution of that nonconformance. The manager notifies the Environmental Services Manager and the Quality Assurance Manager of the nonconformance. The nonconformance resolution process, overseen by the Quality Assurance Manager, provides for the identification, control and resolution of problems associated with items, activities or conditions that do not conform to requirements. The process also provides a means for preventing the inadvertent installation or use of nonconforming items, materials, or services.

6.5.4 Install the part / component by ensuring all required lock out / tag out requirements have been completed, or that the system(s) are at a **zero energy state**.

- a. Install part / component in accordance with manufacturer's instructions or recommendations.
- b. After installation the shop Supervisor will verify the part / component has been installed per manufacturer recommendation or specification. Both the maintenance person and the Supervisor shall sign the work order form verifying the correct part / component was used and installed correctly. The work order form will be returned to the Supervisor of Maintenance, Planning and Housing for data entry into MAXIMO.
- c. After verification that the part / component has been installed correctly, the lock out / tag out devices shall be removed and the system energized if required.
- d. Verify replacement part is functional and operational in accordance with operational manual or best engineering practices.

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DOCUMENT No.
BOP.IOP.EMB.1300
REV. 14
PAGE 12 OF 21

SAI GLOBAL
ISO 9001
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6. PROCEDURE (CONTINUED)

6.6. Emergency Evacuation

6.6.1 Emergency Evacuation Breathing Devices (EEDBs)

- a. Pre-inspection of EEBD – Assure that the breathing device gauge is in the green zone, the mouthpiece cover is in place, no visual damage to the case or container is present, and that the EEBD is in good working condition. If these pre-inspection issues are unable to be verified, obtain a new breathing device by contacting the Fire Department to resolve the issue.
- b. When the fire alarm system goes into pre-alarm (visual/audio signal) or a hazardous condition exists, notify occupants by verbal communication to evacuate. Simply grab the EEBD at the regulator and pull the unit from the holster. The Velcro strap and mouthpiece cover will automatically release. Inhale the first breath and breathe normally while exiting the warehouse.

6.6.2 Emergency Evacuation Doors

- a. All doors to the warehouse will be open when maintenance is being performed.
- b. The two center doors of the warehouse are for emergency egress only and will not be used for routine operations or forklift use.



SAI GLOBAL
ISO 9001
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7. METRICS

7.1 The following metrics are applicable to this procedure:

Checks	Wk	YR	B-YR	How checks will be made
Compressor AMP draw	X			AMP clamp placed on compressor leads checked against manufacturers recommended AMP draw
Compressor oil level	X			Visually inspect to insure oil level is half way up sight glass
Refrigerant sight glass	X			Visually inspect to insure there are no bubbles in sight glass and no moisture present on the indicator
Unit refrigerant charge (404A)	X			Attach refrigerant manifold gauge set to unit to insure suction and discharge pressures are within safe parameters
Condenser fan motor	X			AMP clamp placed on fan motor leads and checked against manufacturers recommended AMP draw
CO ₂ pressure control switch		X		Check proper operation of switch
Units pressure gauge/visual	X			Visually inspect pressure gauges to insure tank pressures are within safe parameters
Unit mounts and fasteners	X			Visually inspect unit mounts and fasteners for signs of fatigue of failure
Clean condenser coils	X			Use a long soft bristled brush to remove dirt and debris from condenser fan coil to insure proper heat exchange
Unit electrical connections	X			Check for loose or corroded electrical connectors, making sure all are tight and well-sealed
Refrigerant line inspection	X			Visually inspect all refrigerant lines for oil residue, frost and other signs of refrigerant leaks.
Safety Relief Valves:			X	Will pressure test safety relief valves, Bi-Annually and replace defective valves as needed in accordance with Chemetron Maintenance Manual.
Bleeder Valve & Manual 3 Way Switch	X			Visually inspect all safety relief valves for leaks, cracks, and lead seal isn't broken.

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8. QUALITY RECORDS

8.1 The following Quality Records shall be generated and managed in accordance with SOC.MS.MP.0002

QUALITY RECORDS			
RECORD REQUIRED	CUSTODIAN	RETENTION	DISPOSITION
Trip Ticket	Maintenance Planning & Housing	Life of contract until further notice	Trash
Training Report	Area Supervisor	1 year	Trash
Work Order (CM/ EM/ PM)	Maintenance Planning & Housing	Life of contract until further notice	
Job Safety Analysis	Area Supervisor	1 year	Trash

9. FORMS

9.1 The following forms are applicable to this document.

APPLICABLE FORMS	
FORM NUMBER	TITLE
AMC Form 2205	Trip Ticket
DZHC 84-E	Training Report
DZHC 167-E	Work Order Report (CM/ EM/ PM)
DZHC 595-E	Job Safety Analysis



SAI GLOBAL
ISO 9001
Quality

TITLE:

REFRIGERATION MAINTENANCE PLAN FOR MERCURY STORAGE

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10. ATTACHMENTS (CONTINUED)

10.2 AMC Form 2205: Installation Equipment Management System (IEMS) Mobile Equipment Utilization Record

y. OPERATION INSPECTION LIST (CHECK IF DEFECTIVE)								z. OPERATOR'S SIGNATURE	
	DAY OF							DATE	
	1	2	3	4	5	6	7		
1. ACCIDENT DAMAGE	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
2. OTHER DAMAGE	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
3. LEAKS	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
4. TIRES, TRACKS, WHEELS	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
5. FUEL, OIL, COOLANT	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
6. BATTERY	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
7. HORN, SAFETY DEVICES	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>						
8. LIGHTS, REFLECTORS GLASS	<input type="checkbox"/>								
9. INSTRUMENTS	<input type="checkbox"/>								
10. WINDSHIELD WIPERS	<input type="checkbox"/>								
11. COMMUNICATION EQUIPMENT	<input type="checkbox"/>								
12. CARGO, MOUNTED EQUIPMENT	<input type="checkbox"/>								
13. STEERING	<input type="checkbox"/>								
14. BELTS/PULLEYS	<input type="checkbox"/>								
15. BRAKES	<input type="checkbox"/>								
16. POWER UNIT/ENGINE	<input type="checkbox"/>								
17. ACCIDENT REPORT FORM	<input type="checkbox"/>								
18. NEEDS MECHANICAL INSPECTION	<input type="checkbox"/>								

aa. REMARKS:

ab. DAYS IN-USE/IDLE/NONAVAILABLE						
SAT	SUN	MON	TUE	WED	THU	FRI
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LEGEND FOR BLOCK
 DAYS IN-USE "U"
 DAYS IDLE "I"
 DAYS NONAVAILABLE "N"

ac. FIRE EXTINGUISHER(S) INSPECTED						
SAT	SUN	MON	TUE	WED	THU	FRI
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LEGEND FOR BLOCK ac.
 ANNOTATE MONTH AND DAY INSPECTED
 AND INITIALS OF OPERATOR/INSPECTOR
 BELOW DATE.

REVERSE SIDE OF AMC FORM 2205-R-E, MAR 95

THIS DOCUMENT WILL BE REVIEWED AT LEAST ANNUALLY TO ENSURE ITS SUITABILITY



Internal Operating Procedure

ISO 9001:2015 SOC NEVADA LLC

DOCUMENT No.
BOP.IOP.EMB.1300

SAI GLOBAL
ISO 9001
Quality

TITLE:

REFRIGERATION MAINTENANCE PLAN FOR MERCURY STORAGE

REV. 14
PAGE 19 OF 21

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10. ATTACHMENTS (CONTINUED)

10.5 SOC 595-E: Job Safety Analysis



JOB SAFETY ANALYSIS

PROJECT TITLE/BUILDING LOCATION:	PAGE OF	DATE:	<input checked="" type="checkbox"/> NEW <input type="checkbox"/> REVISED
TASK OR WORK PERFORMED:	SUPERVISOR(S):	REVIEWED/APPROVED BY: <i>Signature</i>	

PERSONAL PROTECTIVE EQUIPMENT						
EYE PROTECTION <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Other <input type="checkbox"/> As Required	EAR PROTECTION <input type="checkbox"/> Ear Plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Other <input type="checkbox"/> As Required	HAND PROTECTION <input type="checkbox"/> Leather Palm <input type="checkbox"/> Kevlar <input type="checkbox"/> Rubber <input type="checkbox"/> Other <input type="checkbox"/> As Required	FOOT PROTECTION <input type="checkbox"/> Steel Toe Boots <input type="checkbox"/> Conductive <input type="checkbox"/> Shoes/Straps <input type="checkbox"/> Tyvek Cover <input type="checkbox"/> Other <input type="checkbox"/> As Required	RESPIRATORY PROTECTION <input type="checkbox"/> Dust Mask <input type="checkbox"/> 1/2 Face Respirator <input type="checkbox"/> Full Face Respirator <input type="checkbox"/> SCBA <input type="checkbox"/> Other <input type="checkbox"/> As Required	GARMENTS <input type="checkbox"/> Tyvek <input type="checkbox"/> Tycem <input type="checkbox"/> Flame resistant <input type="checkbox"/> Chaps <input type="checkbox"/> Vest <input type="checkbox"/> Other <input type="checkbox"/> As Required	HEAD PROTECTION <input type="checkbox"/> Hardhat <input type="checkbox"/> Tyvek Hood <input type="checkbox"/> Other <input type="checkbox"/> As Required

JOB STEPS	POTENTIAL HAZARDS	ACTION/PROCEDURE TO CONTROL OR ELIMINATE THE HAZARD

DZHC 595-E (R2)

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