Attachment A
JBPHH - Red Hill Facility UST Inspection Checklist
Table of Content

United States Environmental Protection Agency - Region 9
Enforcement and Compliance Assurance Division
Underground Storage Tanks
75 Hawthorne Street, San Francisco CA 94105

https://www.epa.gov/red-hill	(415) 972 - 3374 Phone	(415) 947-3530 Fax	Date(s) of Inspection:	02/28/22 through 03/04/22

Facility Information			
ID Number	HDOH ID 9-102771	Name of Owner	USNavy-COMNAVREG Hawaii
Name	Red Hill Bulk Fuel Storage Facility	Phone number	(808) 471-3926
Address	Red Hill	e-mail address	(b) (6)
	Aiea, Hawaii 96701	Name of Operator	NSSC FLC Pearl Harbor
Phone number	(808) 473-7801	Phone number	(b) (6)

Red Hill - EPA UST Inspection Checklist (HAR §11-280.1)

This UST inspection covers operational requirements of CFR 280 and the Hawaii Administrative Rules (HAR) 280.1. Federal regulations allow states to develop rules that are as stringent or more stringent to the federal regulations. On March 7, 2022, EPA granted final approval to the State of Hawaii to operate its Underground Storage Tank Program for petroleum and hazardous substances. This inspection builds on the HDOH October 2020 inspection.

	PERMIT AND VARIANCE REQUIREMENTS			
	Obtained a permit from the director before installing or operating a UST or UST system. *HRS 342L-31*	☐ Yes	☐ No	☑ N/A
$400	Notified the department at least seven (7) days prior to installation. *HAR 11-280.1-325(c)*	☐ Yes	☐ No	☑ N/A
$200	Completed and submitted proper documentation to certify compliance with tank notification and installation within thirty (30) days after the installation of the UST system. *HAR 11-280.1-325(d)*	☐ Yes	☑ No	☐ N/A
$200	UST Permit renewal application received at least 180 days prior to expiration of the existing UST permit. *HAR 11-280.1-326*	☐ Yes	☐ No	☑ N/A
$400	UST Permit modification application received at least sixty (60) days prior to the occurrence of the event that prompted the application. *HAR 11-280.1-329(c)*	☐ Yes	☐ No	☑ N/A
	Approved request to transfer permit to new UST owner. *HAR 11-280.1-331(a)*	☐ Yes	☐ No	☑ N/A
$300	UST Permit transfer application received at least thirty (30) days prior to the proposed effective date of the transfer of the UST permit. *HAR 11-280.1-331(c)*	☐ Yes	☐ No	☑ N/A
$100	UST permit and/or variance, including application records are maintained at the location of the UST or tank system for which the permit was issued and made available for inspection upon request of any duly authorized representative of the department. *HAR 11-280.1-334(a)*	☐ Yes	☐ No	☑ N/A

Comments: At the time of the inspection 4 sumps were observed that are likely considered underground storage tanks, and would need to be permitted: Zone 7 Fuel Oil Reclamation (FOR) sump, the main FOR sump, the UGPH sump, the FOR facility influent sump. After the inspection, the team determined that only 2 sumps are considered underground storage tanks" Zone 7 FOR sump and the main FOR sump.

Inspector's Name: S. BOBBY OJHA

Assisting Inspector: RICK SAKOW

OPERATOR TRAINING REQUIREMENTS

Operator A	Operator B	Operator C
Designee: Records were available at time of inspection.	Designee: Records were available at time of inspection.	Designee: Records were available at time of inspection.
Training Provider: Records were available at time of inspection.	Training Provider: Records were available at time of inspection.	Training Provider: Records were available at time of inspection.
Training Expiration Date: Records were available at time of inspection.	Training Expiration Date: Records were available at time of inspection.	Training Expiration Date: Records were available at time of inspection.

Comments:

$400	Class A and Class B operators are designated for each UST or group of USTs at a facility. *HAR 11-280.1-241(a)(1)*	☑ Yes	☐ No	☐ N/A
$400	Each individual who meets the definition of a Class C operator at the UST facility is designated as a Class C operator. *HAR 11-280.1-241(a)(2)*	☑ Yes	☐ No	☐ N/A
$200	Submitted a written notice to the department identifying the Class A and B operators for each UST or tank system in use or TOU no later than thirty (30) days after an operator assumes the operator's responsibilities as a Class A or Class B operator. *HAR 11-280.1-241(c)*	☑ Yes	☐ No	☐ N/A
$200	Designated operators have written verifications from a training program approved or administered by the department that the class A and B operator for each UST or tank system has successfully completed operator training in the operator's class. *HAR 11-280.1-241(c)*	☑ Yes	☐ No	☐ N/A
$200	Obtained operator training from a program approved or administered by the department. *HAR 11-280.1-242*	☑ Yes	☐ No	☐ N/A
$200	Designated class A and class B operators are retrained every 5 years and class C operator every 365 days. *HAR 11-280.1-244 (a)*	☑ Yes	☐ No	☐ N/A
$400	Class A and Class B operators of UST systems determined by the department to be out of compliance have completed retraining administered by the department or from an independent organization. *HAR 11-280.1-244(b)* ☐ Retraining was conducted no later than 30 days from the date the department determined the facility is out of compliance? *HAR 11-280.1-244(c)*	☐ Yes	☐ No	☑ N/A
$100	A list of designated class A, class B and class C operators is maintained at the UST site. *HAR 11-280.1-245*	☑ Yes	☐ No	☐ N/A

Comments:

Training records were available at the time of the inspection.

Inspector's Name: S. BOBBY OJHA

Assisting Inspector, if any: RICK SAKOW

FINANCIAL RESPONSIBILITY (FR) REQUIREMENTS

☑ Exempt: ☐ State or ☐ Federal

$400	Financial Responsibility mechanism meets the per occurrence requirements. *HAR 11-280.1-93(a)* Note: USTs at petroleum marketing facilities, or that handle an average of more than 10K gallons of petroleum Per month: 1,000,000 All others: $500,000	☐ Yes	☐ No	☑ N/A
$400	Financial Responsibility mechanism meets the annual aggregate requirements? *HAR 11-280.1-93(b)* Note: 1 to 100 UST's: $1,000,000 or 101 or more UST's: $2,000,000	☐ Yes	☐ No	☑ N/A
$400	Notified the department if unable to obtain alternate coverage within 60 days after receipt of the notice of termination. *HAR 11-280.1-109(b)*	☐ Yes	☐ No	☑ N/A
$400	Submitted appropriate forms to the director if the provider becomes incapable of providing assurance and the owner/operator is unable to obtain alternate coverage within 30 days. *HAR 11-280.1-110(a)(2)*	☐ Yes	☐ No	☑ N/A
$100	Evidence of all financial assurance mechanisms used to demonstrate financial responsibility are maintained on site or made immediately available upon request by the department? *HAR 11-280.1-111* ☐ Certification of Financial Responsibility is current and in compliance. *HAR 11-280.1-111(b)(10)*	☐ Yes	☐ No	☑ N/A
$200	Submitted appropriate forms within 30 days after the owner/operator identifies a release from an UST. *HAR 11-280.1-110(a)(1)*	☐ Yes	☐ No	☑ N/A
$100	Must certify compliance with the financial responsibility requirements. *HAR 11-280.1-110(b)*	☐ Yes	☐ No	☑ N/A
$400	The mechanism or combination of mechanisms to demonstrate financial responsibility is approved. *HAR 11-280.1-94*	☐ Yes	☐ No	☑ N/A

Comments:

Not Applicable - Federal Facility

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

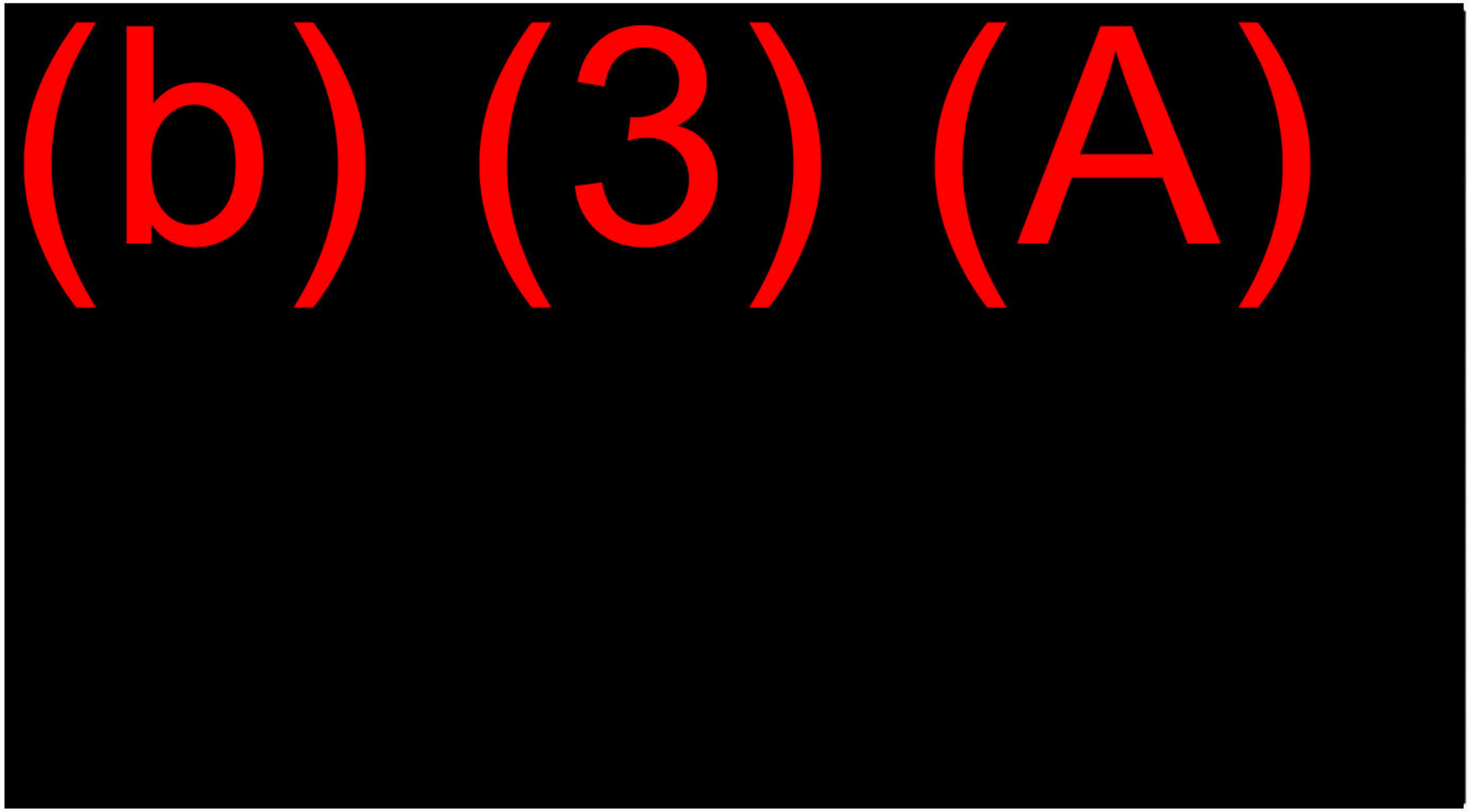
Red Hill UST System Diagrams

NAVSUP
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

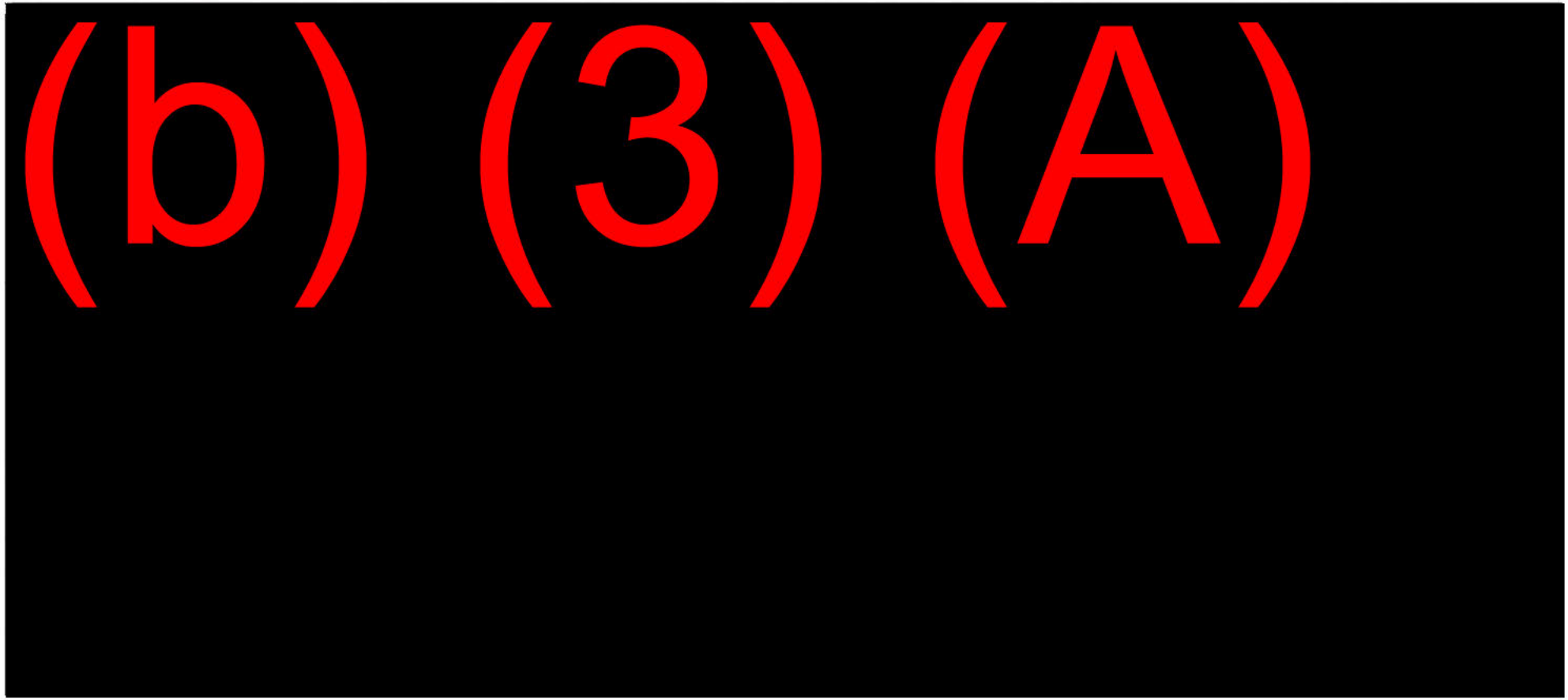
PAR Hawaii and DFSP JBPHH Major Pipelines

(b) (3) (A)

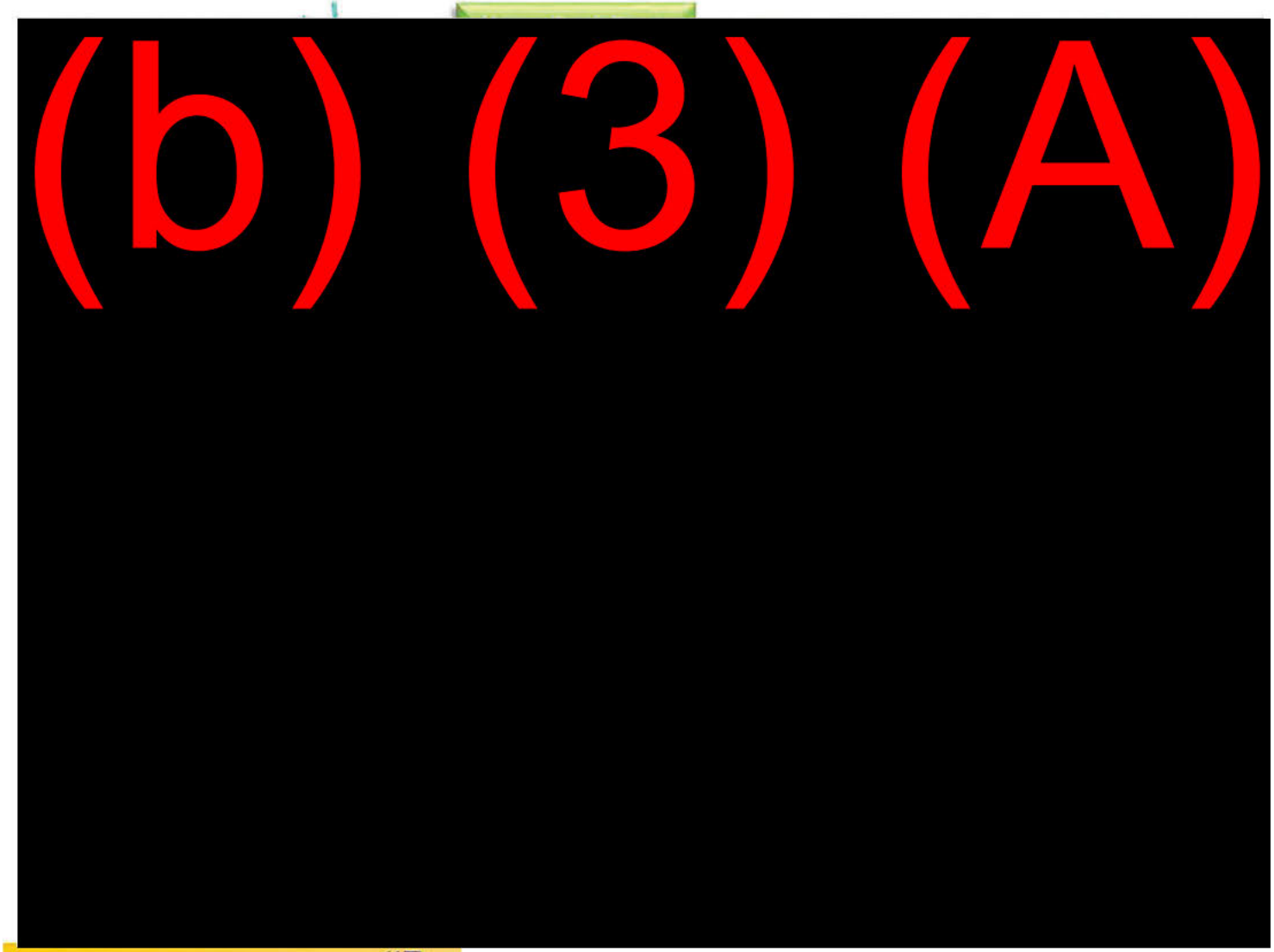
DFSP JBPHH Pipeline Distribution System



DFSP JBPHH Red Hill Bulk Fuel Storage Facility Distribution System



DFSP JBPHH Pearl Harbor Distribution System



Flow Rates from Red Hill

F-76 – (b) (3) (A)
JP-5 – (b) (3) (A)
F-24 – (b) (3) (A)

Distribution

Tanker
FleetOiler
Pier
YON (FLC PH Fuel Barge) Truck Load Racks

"Peo

DFSP JBPHH Hickam Distribution System

NAVSUP
Naval Supply Systems Command
Fleet Logistics Center
Pearl Harbor

(b) (3) (A)

Capacity

- F-24 – (b) (3) (A)
- DS2 – (b) (3) (A)
- JPTS – (b) (3) (A)
- LOX – (b) (3) (A)
- LIN – (b) (3) (A)

Tankage

- 11 AST

Receipt

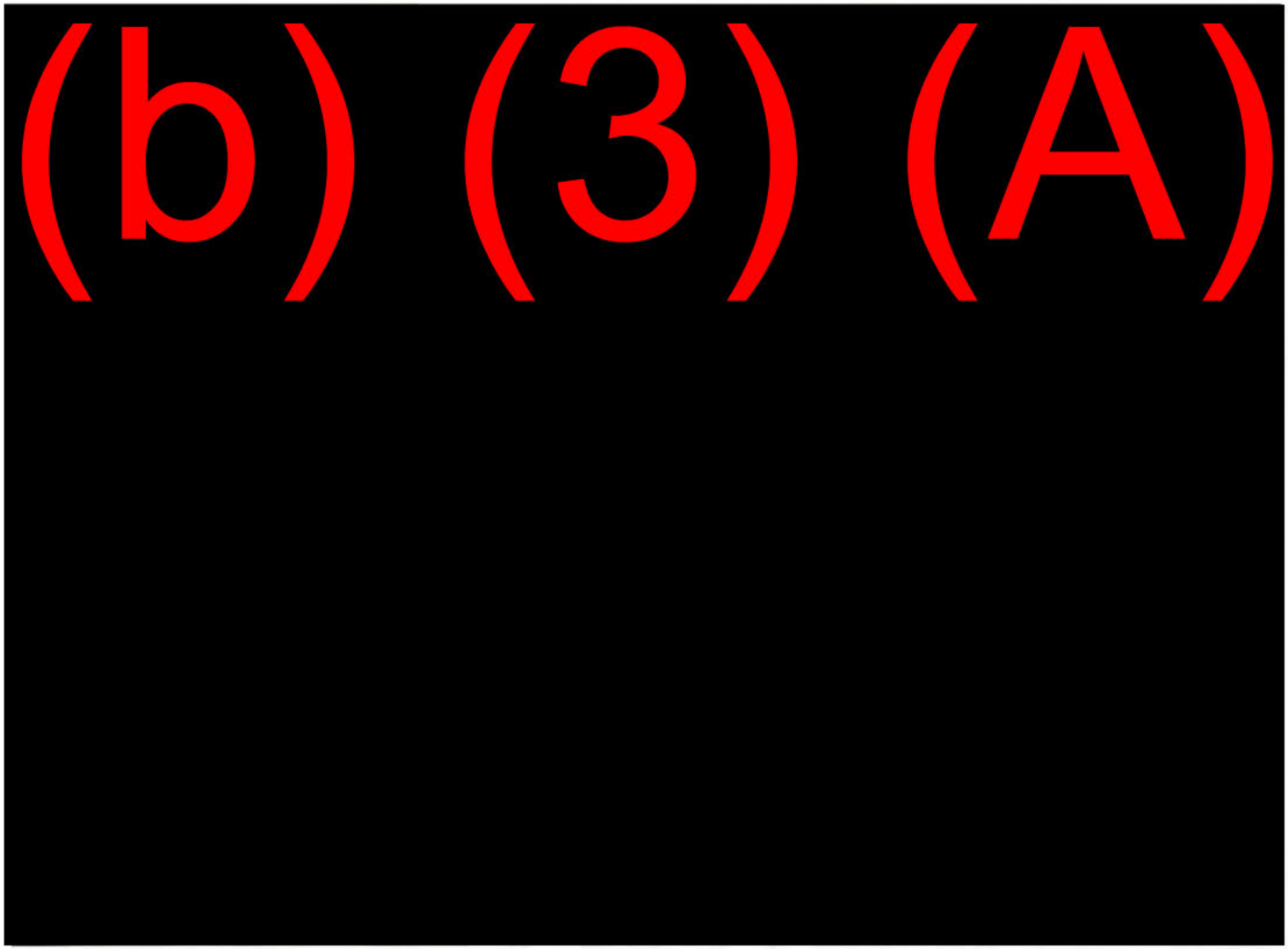
Pipeline
Truck Off-Load Rack

Distribution

- Truck Load Rack
- Hydrant Type II (b) (3) (A)

NAVSUP
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

DFSP Pearl Harbor / Red Hill
Product Receipt Footprint



Capacity

- JP-5 - (b) (3) (A)
- F-76 - (b) (3) (A)
- F-24 - (b) (3) (A)
- LTL 2190 - (b) (3) (A)
- LOG 9250 - (b) (3) (A)

Tankage

- 24 UST
  - 20 UST (Red Hill)
  - 4 UST (Surge Tanks)
- 12 AST

Receipt

- Commercial Pipeline
- Tanker

HDOH ID 9-102771

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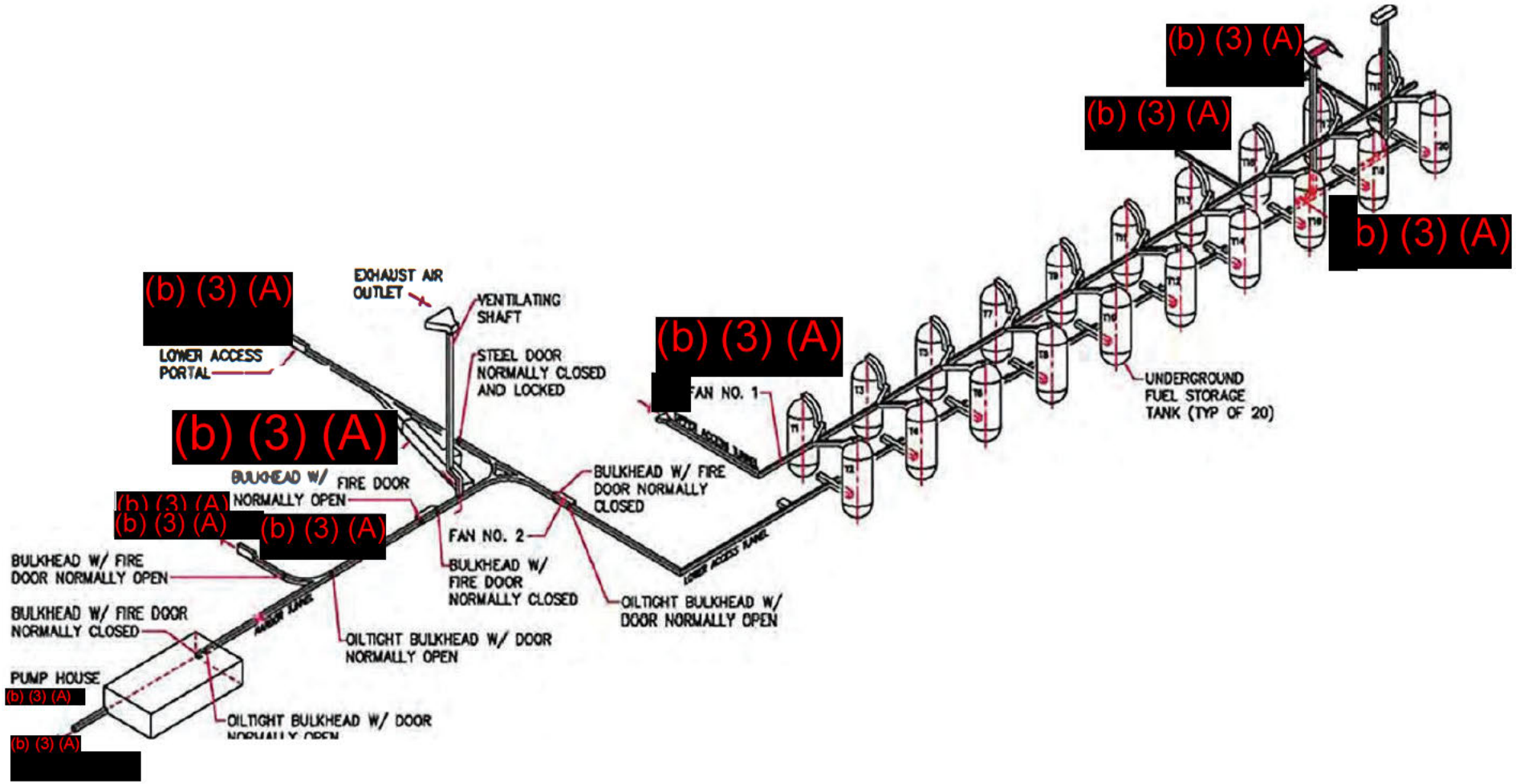
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

Red Hill Bulk Fuel Storage Facility Site Diagram



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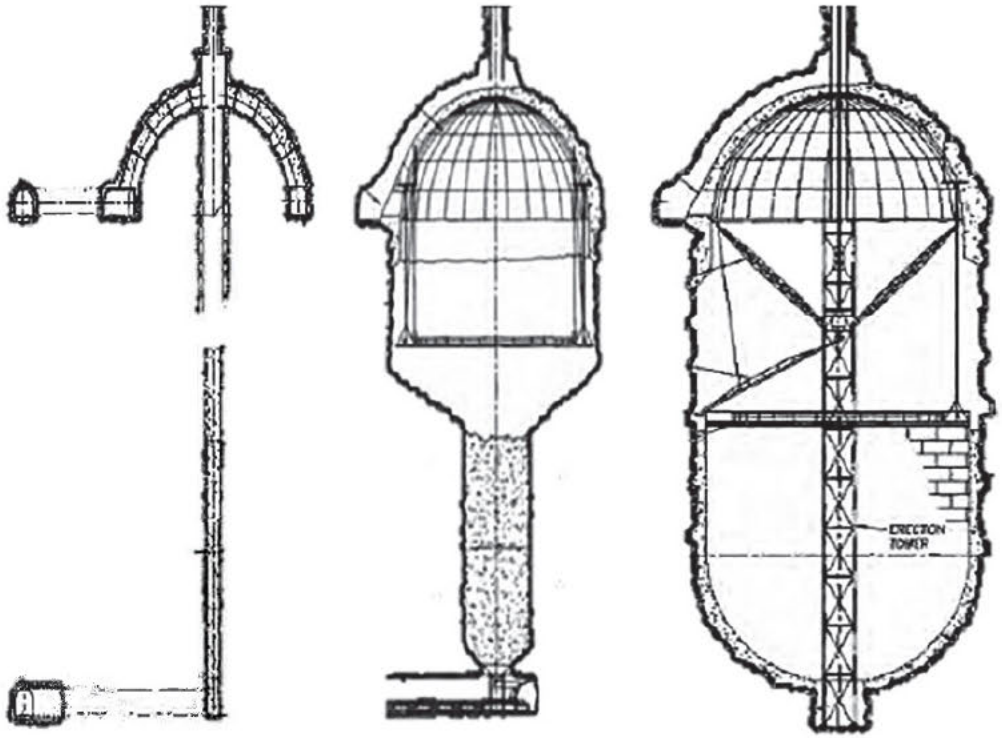
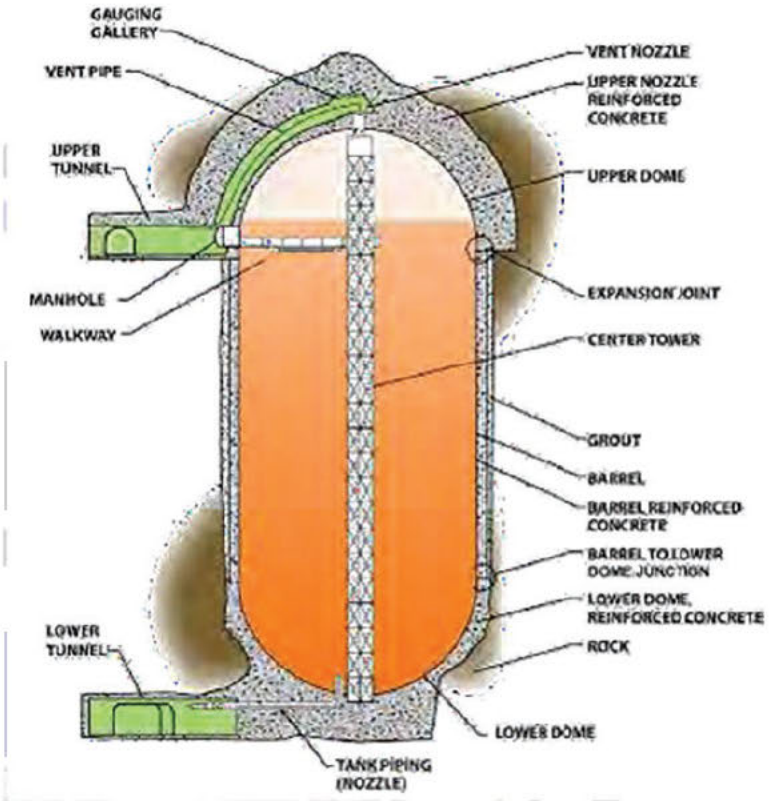
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

Red Hill Bulk Fuel Storage Facility
Tank Profile





- **Each Tank is 250' Tall and 100' Diameter**
- **Total Volume is 12.5M Gallons**

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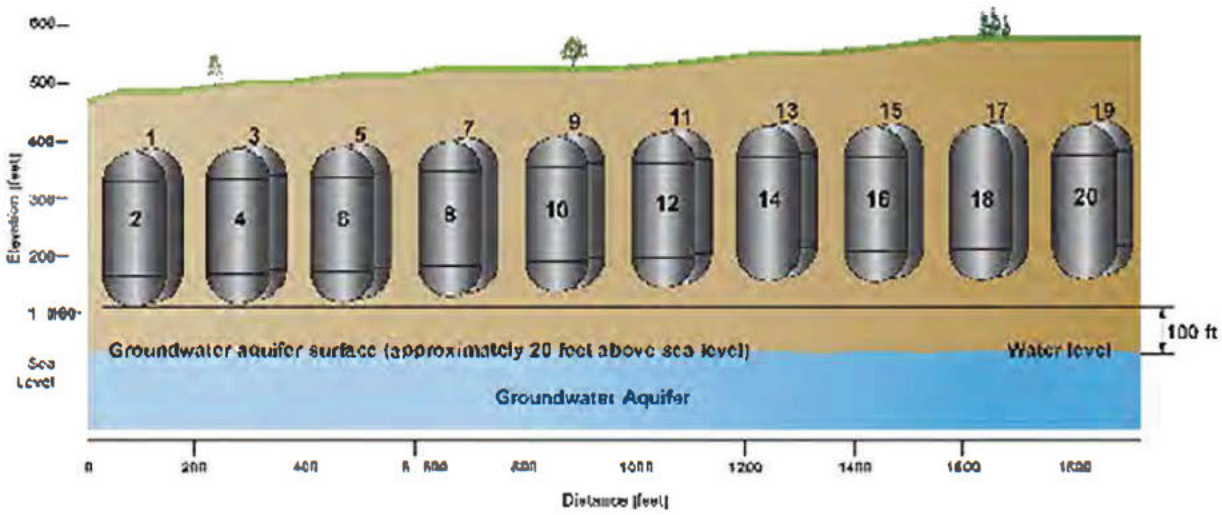
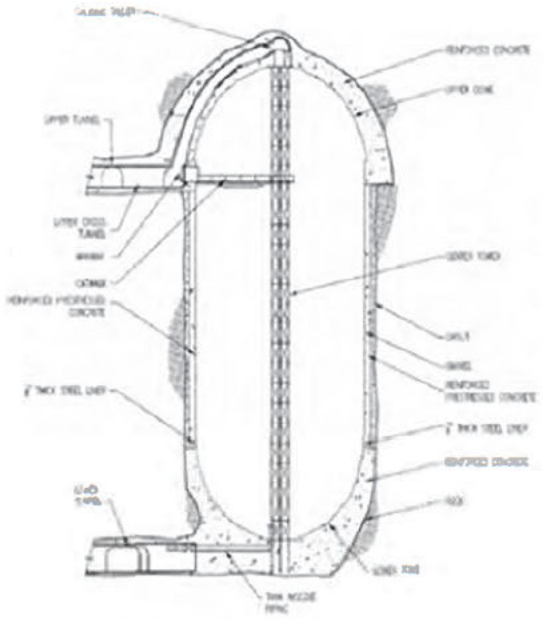
PEARL HARBOR

Red Hill Bulk Fuel Storage Facility History and Construction

- **Characteristics**
  - Built in 1940s, 20 underground tanks, steel-lined, encased in concrete & gunite, built into basalt rock
  - 14 tanks operational, 2 out of service, 2 undergoing CIR maintenance, 2 recently RTO'd
  - 250 million gallons gross fuel storage (12.5M gal capacity/tank), both jet fuel and marine diesel fuel
  - Resilient against threat scenarios

- **Fuel flows by gravity to Joint Base Pearl Harbor Hickam**
  - In times of emergency, to civilian airport, shipping port, and power generation supply locations





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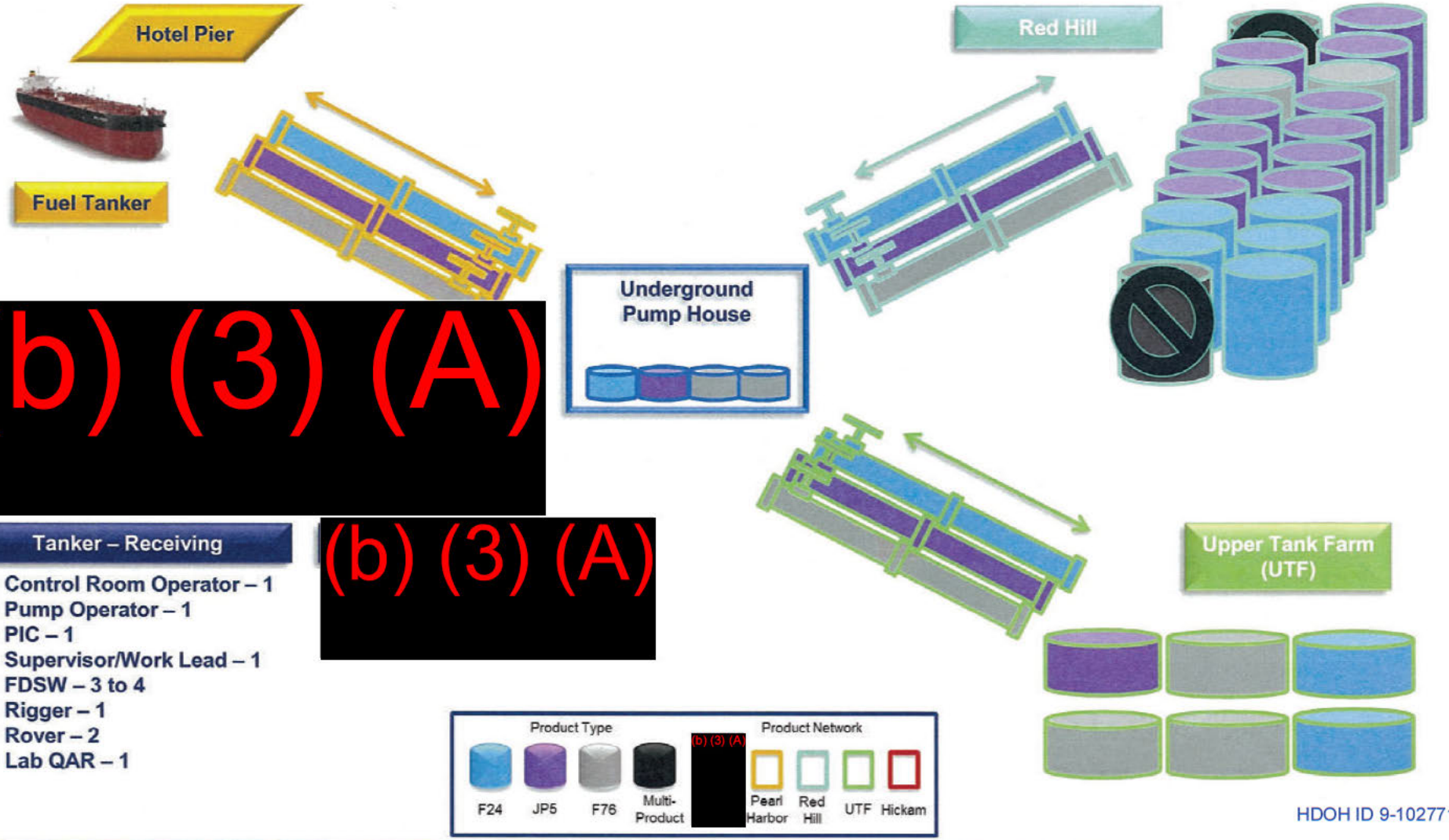
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

DFSP Pearl Harbor Product Receipt
Supply Chain / Manpower



Tanker – Receiving

- Control Room Operator – 1
- Pump Operator – 1
- PIC – 1
- Supervisor/Work Lead – 1
- FDSW – 3 to 4
- Rigger – 1
- Rover – 2
- Lab QAR – 1

HDOH ID 9-102771

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NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

DFSP Pearl Harbor Product Distribution Supply Chain / Manpower

Truck Rack Operations

- Control Room Operator – 1
- Truck Operator – 1
- FDSW – 1

Commercial Truck

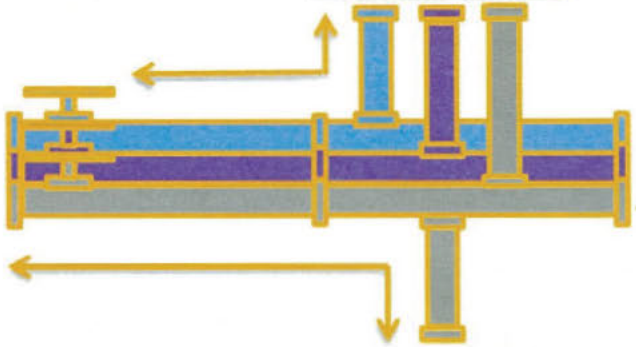
Off-Base Customers

- MCBH Kaneohe Bay
- Wheeler Army Air Field
- Schofield Barracks
- Barbers Point

Bulk (Kuahua) Truck Load Rack

FLCPH Truck

Underground Pump House



Hotel Pier

Fleet Units

FLCPH Fuel Barge

Bravo Pier

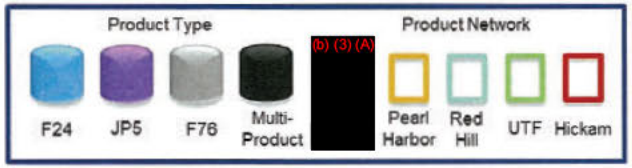
Kilo Pier

Mike Pier

Sierra Pier

Fuel Barge Operations

- Control Room Operator – 1
- PIC (YON Operator) – 1
- YON Personnel – 1 to 2
- YON Mechanic – 1
- FDSW – 1 to 2



Pier Operations

- Control Room Operator - 1
- PIC – 1
- Supervisor/Work Lead – 1
- FDSW – 1 to 2
- Rover – 2

HDOH ID 9-102771

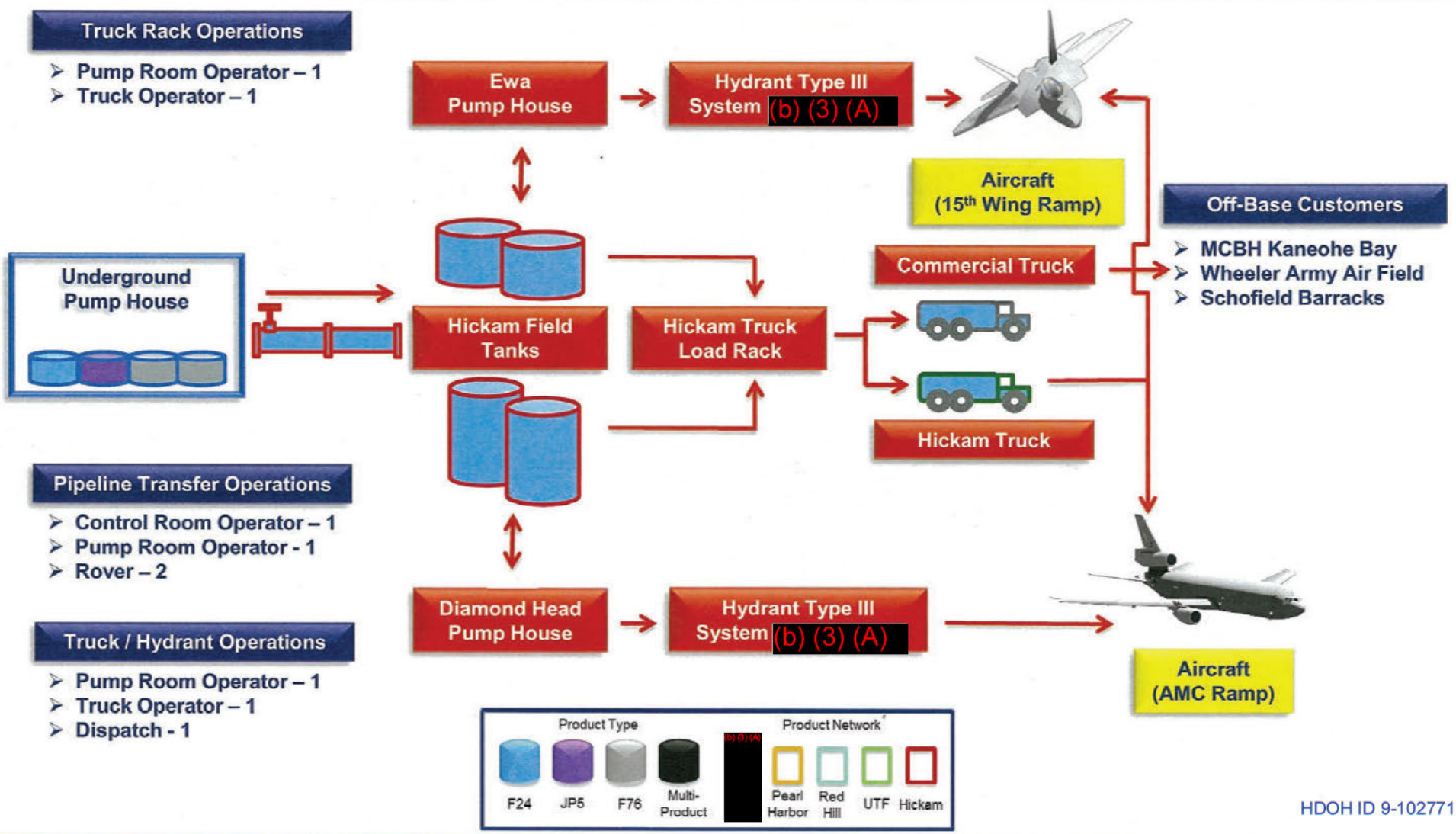
NAVSUP
NAVAL SUPPLY SYSTEMS COMMAND
FLEET LOGISTICS CENTER
PEARL HARBOR

Hickam Field Product Distribution
Supply Chain / Manpower

Truck Rack Operations
- Pump Room Operator – 1
- Truck Operator – 1

Pipeline Transfer Operations
- Control Room Operator – 1
- Pump Room Operator - 1
- Rover – 2

Truck / Hydrant Operations
- Pump Room Operator – 1
- Truck Operator – 1
- Dispatch - 1



HDOH ID 9-102771

Red Hill UST System
F1 - F20

Descriptions of Red Hill UST Systems **F-1 to F-4**				
Tank Number	Tank No. F-1	Tank No. F-2	Tank No. F-3	Tank No. F-4
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	10/01/1942	09/01/1942	01/01/1943	12/01/1942
Estimated Capacity *(in gallons)*	12,500,000	12,500,000	12,500,000	12,500,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored	Empty Tank	Jet Fuel F-24	Jet Fuel F-24	Jet Fuel F-24
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Piping 2° Containment Material				
Method of Product Dispensing				
Spill Prevention Equipment				
Overfill Prevention Equipment 1		Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)				
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Description of Red Hill UST Systems **F-5 to F-8**

Tank Number	Tank No. F-5	Tank No. F-6	Tank No. F-7	Tank No. F-8
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	12/01/1942	12/01/1942	05/01/1943	03/01/1943
Estimated Capacity *(in gallons)*	12,500,000	12,500,000	12,500,000	12,500,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored	Jet Fuel F-24	Jet Fuel F-24	Jet Fuel JP-5	Jet Fuel JP-5
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Piping 2° Containment Material				
Method of Product Dispensing				
Spill Prevention Equipment				
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Description of Red Hill UST Systems **F-9 to F-12**

Tank Number	Tank No. F-9	Tank No. F-10	Tank No. F-11	Tank No. F-12
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	02/1943	01/1943	02/1943	03/1943
Estimated Capacity *(in gallons)*	12,500,000	12,500,000	12,500,000	12,500,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored	Jet Fuel JP-5	Jet Fuel JP-5	Jet Fuel JP-5	Jet Fuel JP-5
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28:			
Piping 2° Containment Material				
Method of Product Dispensing	Please refer to "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Spill Prevention Equipment				
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28:			
Additional Piping RD, *if any*	"Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Description of Red Hill UST Systems **F-13 to F-16**

Tank Number	Tank No. F-13	Tank No. F-14	Tank No. F-15	Tank No. F-16
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	03/1943	03/1943	04/1943	05/1943
Estimated Capacity *(in gallons)*	12,500,000	12,500,000	12,500,000	12,500,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored			Marine Diesel F-76	Marine Diesel F-76
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ((b) (3) (A) [redacted])" - Section			
Piping 2° Containment Material				
Method of Product Dispensing				
Spill Prevention Equipment				
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Description of Red Hill UST Systems **F-17 to F-20**				
Tank Number	Tank No. F-17	Tank No. F-18	Tank No. F-19	Tank No. F-20
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	05/1943	05/1943	06/1943	07/1943
Estimated Capacity *(in gallons)*	12,500,000	12,500,000	12,500,000	12,500,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored				Jet Fuel JP-5
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Piping 2° Containment Material				
Method of Product Dispensing				
Spill Prevention Equipment				
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Comments: Descriptions of Red Hill UST Systems F-1 to F-20

Tank 02 -
Tank 03 -
Tank 04 -
Tank 06 -
Tank 07 -
Tank 08 -
Tank 09 -
Tank 10 -
Tank 11 -
Tank 12 -
Tank 15 -
Tank 16 -
Tank 17 -
Tank 20 -

Surge Tanks ST1- ST4

Descriptions of Red Hill UST Systems – **Surge Tanks F-ST1 to F-ST4**				
Tank Number	Tank No. F-ST1	Tank No. F-ST2	Tank No. F-ST3	Tank No. F-ST4
Status of Tank	Temporarily Closed	Temporarily Closed	Temporarily Closed	Temporarily Closed
Date of Installation	07/01/1942	07/01/1942	07/01/1942	07/01/1942
Estimated Capacity	400,000	400,000	400,000	400,000
Compartmentalized	NO	NO	NO	NO
Manifold	NO	NO	NO	NO
Substance Stored	Jet Fuel F-24	Jet Fuel JP-5	Marine Diesel F-76	Marine Diesel F-76
Tank 1° Containment Material	Steel	Steel	Steel	Steel
Tank 2° Containment Material				
Corrosion Protection				
Piping 1° Containment Material	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Piping 2° Containment Material				
Method of Product Dispensing				
Spill Prevention Equipment				
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	Overfill Alarm	Overfill Alarm
Overfill Prevention Equipment 2				
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	☐	☐
Release Detection (Tank)	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing	Tank Tightness Testing
Additional Tank RD, *if any*				
Additional Tank RD, *if any*				
Release Detection (Piping)	Please refer to page 28: "Descriptions of Red Hill UST Systems - Pipeline, Hydrant Loops ([redacted])" - Section			
Additional Piping RD, *if any*				
Additional Piping RD, *if any*				
Automatic line leak detector (ALLD) type, *if any*				
ALLD serial number				

Comments Re: Descriptions of Red Hill UST Systems – **Surge Tanks F-ST1 to F-ST4**

Pipeline
Hydrant Loops
Diamond Head
& Ewa

Descriptions of Red Hill UST Systems – **Pipeline, Hydrant Loops (Diamond Head & Ewa)**

Piping Name/Section	Pipeline Outside Tunnel	Hydrant Loop Ewa	Hydrant Loop Diamond Head
Status of Pipeline	Currently-In-Use	Currently-In-Use	Currently-In-Use
Date of Installation	Various	06/2006	09/2011
Estimated Capacity	(b) (3) (A)	(b) (3) (A)	(b) (3) (A)
Compartmentalized (section)	NA	NA	NA
Manifold	NA	NA	NA
Substance Stored	F-24, JP-5, F-76	Jet Fuel F-24	Jet Fuel F-24
Corrosion Protection	Impressed Current	Impressed Current	Impressed Current
Piping 1° Containment Material	Steel	Steel	Steel
Piping 2° Containment Material			
Method of Product Dispensing			
Release Detection (Piping)	Line Tightness Test	Line Tightness Test	Line Tightness Test
Additional Piping RD, *if any*			
Additional Piping RD, *if any*			
Automatic line leak detector (ALLD) type, *if any*			
ALLD serial number			

Comments Re: Descriptions of Red Hill UST Systems – Pipeline, Hydrant Loops ((b) (3) (A))

Pipeline outside of tunnel consists of underground and above ground pipelines associated with piers, truck load racks, pipeline to Hickam, and above ground storage tanks.

Release detection is annual or semi-annual line tightness test depending on volume of piping segments outside of tunnel.

Release detection is annual line tightness test for (b) (3) (A) hydrant loops.

See attachment XX, list of piping segments.

SPILL PREVENTION REQUIREMENTS – External Fuel Receipt Points				
☑ Exempt: ☐ Alternative equipment approved by the department is used. *HAR 11-280.1-20(d)(2)(A)* ☐ Transfers of no more than 25 gallons. *HAR 11-280.1-20(d)(2)(B)*		Par NA NA	Hickam Truck Off Loading Racks NA NA	
$300	Spill prevention equipment will prevent release of product to the environment. *HAR 11-280.1-20(d)(1)(A)*	NA	NA	
$200	☐ Spill prevention equipment is double walled and monitored every 31-days; *HAR 11-280.1-35(a)(1)(A)* OR ☐ Spill prevention equipment tested every 365 days. *HAR 11-280.1-35(a)(1)(B)* Date(s) of Services: _____, _____, _____	NA NA	NA NA	
$100	Maintain spill prevention equipment testing/monitoring/inspection records for three years. *HAR 11-280.1-35(b)*	NA	NA	

Comments:
Fuel Receipt Points:

(b) (3) (A)
Piers: Hotel and Sierra Piers

Truck Loading Racks (TLR):

Kuahua Truck On-Loading Rack
Hickam Truck Off-Loading Rack and Hickam Truck On-Loading Rack

The Hickam Truck Off-Loading Rack has spill prevention testing and overfill protection testing conducted annually. (I think this is supposed to be just spill prevention testing?)

OVERFILL PREVENTION REQUIREMENTS				
☐ Exempt: ☐ Alternative equipment approved by the department is used. *HAR 11-280.1-20(d)(2)(A)* ☐ Transfers of no more than 25 gallons. *HAR 11-280.1-20(d)(2)(B)*		RH Tanks (F-1 to F-20) YES YES	Surge Tanks (F-ST1 to F-ST4) YES YES	
$300	Automatically shut off flow into the tank when the tank is no more that 95% full. *HAR 11-280.1-20(d)(1)(B)(i)*	NO	NO	
$300	Overfill alarm alerts the transfer operator when the tank is no more than 103% full by triggering a high-level alarm. *HAR 11-280.1-20(d)(1)(B)(ii)* ☑ Sign clearly labeled ☑ Alarm is visible ☑ Alarm is audible *HAR 11-280.1-20(d)(4)*	YES	YES	
$300	For flow restrictors installed before July 15,2018, must restrict flow thirty minutes prior to overfilling. *HAR 11-280.1-20(d)(3)*	NA	NA	
$200	Overfill prevention equipment inspected every three years. *HAR 11-280.1-35(a)(3)* Current service date: _____ Previous service date: _____	YES	YES	
$100	Maintain overfill prevention equipment testing/inspection records for three years. *HAR 11-280.1-35(b)*	YES	YES	

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Corrosion Protection

Red Hill Tanks F-1 to F-20
Surge Tanks F-ST1 to F-ST4
Pipeline Outside Tunnel & Hydrant Loops:
Diamond Head & Ewa

CORROSION PROTECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20

A. UST Systems Not Requiring Corrosion Protection

☐ UST system is constructed of fiberglass-reinforced plastic or non-corrodible material.
HAR 11-280.1-20(b)(1) and HAR 11-280.1-20(c)(1)

☑ Tank is constructed of steel and clad or jacketed with a non-corrodible material.
HAR 11-280.1-20(b)(3)

☐ UST system is constructed of metal without additional corrosion protection measures provided that:
HAR 11-280.1-20(b)(4) and HAR 11-280.1-20(c)(3)

- ☑ UST system is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life;
  HAR 11-280.1-20(b)(4)(A) and HAR 11-280.1-20(c)(3)(A)

  AND

- ☐ Owners and operators maintain records that demonstrate compliance with the requirements that the UST system is installed at the site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life.
  HAR 11-280.1-20(b)(4)(B) and HAR 11-280.1-20(c)(3)(B)

☐ The UST system construction and corrosion protection are determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment.
HAR 11-280.1-20(b)(5) and HAR 11-280.1-20(c)(4)

B. UST Systems Requiring Cathodic Protection

☐ UST system is constructed of steel and cathodically protected in the following manner:
HAR 11-280.1-20(b)(2)

- ☑ UST system is coated with a suitable dielectric material.
  HAR 11-280.1-20(b)(2)(A)
- ☐ Field-installed cathodic protection systems are designed by a corrosion expert.
  HAR 11-280.1-20(b)(2)(B)
- ☑ Impressed current system are designed to allow determination of current operating status.
  HAR 11-280.1-20(b)(2)(C)
- ☐ Cathodic protection systems are operated and maintained in accordance with section 11-280.1-31 or according to guidelines established by the department.
  HAR 11-280.1-20(b)(2)(D)

Operation and Maintenance of Corrosion Protection

$400	All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground. *HAR 11-280.1-31(1)*	☐ Yes ☐ No ☐ N/A
$400	Cathodic protection systems inspected for proper operation and by a qualified cathodic protection (CP) tester as follows: *HAR 11-280.1-31(2)* Name of Qualified CP Tester: _____ NACE Tech #: _____	☐ Yes ☐ No ☐ N/A
$400	Frequency: All CP systems must be tested within six (6) months of installation or repair and at least every three (3) years thereafter; *HAR 11-280.1-31(2)(A)* **AND**	☐ Yes ☐ No ☐ N/A
	Inspection criteria: The criteria that are used to determine that CP is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association. *HAR 11-280.1-31(2)(B)*	☐ Yes ☐ No ☐ N/A

$100	Testing results from the last 2 inspections required for all CP systems maintained (tested within 6 months after install or repair and at least every 3 years thereafter) *HAR 11-280.1-31(4)* Date of current CP inspection: _____ Date of previous CP inspection: _____	☐ Yes ☐ No ☐ N/A

Comments:

Corrosion protection determination for Tanks F1 - F20 is pending the outcome of an on-going contested case between State of Hawaii Department of Health and the United States Navy, DOCKET NO. 19-UST-EA-01.

$200	UST systems with impressed current CP systems inspected every sixty (60) days to ensure the equipment is operating properly. *HAR 11-280.1-31(3)* Dates of last 3 inspections: _____, _____ and _____	☐ Yes ☐ No ☐ N/A
	Current readings for impressed current systems Amps: _____ Volts: _____ ☐ N/A	Normal Range of Operation: _____

Comments Re: CORROSION PROTECTION REQUIREMENTS for Red Hill Tanks F-1 to F-20

Corrosion protection determination for Tanks F1 - F20 is pending the outcome of an on-going contested case between State of Hawaii Department of Health and the United States Navy, DOCKET NO. 19-UST-EA-01.

CORROSION PROTECTION REQUIREMENTS - Surge Tanks F-ST1 to F-ST4

A. UST Systems Not Requiring Corrosion Protection

☐ UST system is constructed of fiberglass-reinforced plastic or non-corrodible material.
HAR 11-280.1-20(b)(1) and HAR 11-280.1-20(c)(1)

☐ Tank is constructed of steel and clad or jacketed with a non-corrodible material.
HAR 11-280.1-20(b)(3)

☐ UST system is constructed of metal without additional corrosion protection measures provided that:
HAR 11-280.1-20(b)(4) and HAR 11-280.1-20(c)(3)

- ☐ UST system is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life;
  HAR 11-280.1-20(b)(4)(A) and HAR 11-280.1-20(c)(3)(A)

  AND

- ☐ Owners and operators maintain records that demonstrate compliance with the requirements that the UST system is installed at the site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life.
  HAR 11-280.1-20(b)(4)(B) and HAR 11-280.1-20(c)(3)(B)

☐ The UST system construction and corrosion protection are determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment.
HAR 11-280.1-20(b)(5) and HAR 11-280.1-20(c)(4)

B. UST Systems Requiring Cathodic Protection

☐ UST system is constructed of steel and cathodically protected in the following manner:
HAR 11-280.1-20(b)(2)

- ☐ UST system is coated with a suitable dielectric material.
  HAR 11-280.1-20(b)(2)(A)
- ☐ Field-installed cathodic protection systems are designed by a corrosion expert.
  HAR 11-280.1-20(b)(2)(B)
- ☐ Impressed current system are designed to allow determination of current operating status.
  HAR 11-280.1-20(b)(2)(C)
- ☐ Cathodic protection systems are operated and maintained in accordance with section 11-280.1-31 or according to guidelines established by the department.
  HAR 11-280.1-20(b)(2)(D)

Operation and Maintenance of Corrosion Protection

$400	All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground. *HAR 11-280.1-31(1)*	☐ Yes ☐ No ☐ N/A
$400	Cathodic protection systems inspected for proper operation and by a qualified cathodic protection (CP) tester as follows: *HAR 11-280.1-31(2)* Name of Qualified CP Tester: _____ NACE Tech #: _____	☐ Yes ☐ No ☐ N/A
$400	Frequency: All CP systems must be tested within six (6) months of installation or repair and at least every three (3) years thereafter; *HAR 11-280.1-31(2)(A)* **AND**	☐ Yes ☐ No ☐ N/A
	Inspection criteria: The criteria that are used to determine that CP is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association. *HAR 11-280.1-31(2)(B)*	☐ Yes ☐ No ☐ N/A

$100	Testing results from the last 2 inspections required for all CP systems maintained (tested within 6 months after install or repair and at least every 3 years thereafter) *HAR 11-280.1-31(4)* Date of current CP inspection: _____ Date of previous CP inspection: _____	☐ Yes ☐ No ☑ N/A

Comments:
Corrosion protection determination for Tanks F1 - F20 is pending the outcome of an on-going contested case between State of Hawaii Department of Health and the United States Navy, DOCKET NO. 19-UST-EA-01.

$200	UST systems with impressed current CP systems inspected every sixty (60) days to ensure the equipment is operating properly. *HAR 11-280.1-31(3)* Dates of last 3 inspections: _____, _____ and _____	☐ Yes ☐ No ☑ N/A
	Current readings for impressed current systems Amps: _____ Volts: _____ ☐ N/A	Normal Range of Operation: _____

Comments Re: CORROSION PROTECTION REQUIREMENTS for Red Hill Tanks F-ST1 to F-ST4
Corrosion protection determination for Tanks F1 - F20 is pending the outcome of an on-going contested case between State of Hawaii Department of Health and the United States Navy, DOCKET NO. 19-UST-EA-01.

CORRECTION PROTECTION REQUIREMENTS - Pipeline Outside Tunnel and Hydrant Loops ((b) (3) (A))

A. UST Systems Not Requiring Corrosion Protection

☐ UST system is constructed of fiberglass-reinforced plastic or non-corrodible material.
HAR 11-280.1-20(b)(1) and HAR 11-280.1-20(c)(1)

☐ Tank is constructed of steel and clad or jacketed with a non-corrodible material.
HAR 11-280.1-20(b)(3)

☐ UST system is constructed of metal without additional corrosion protection measures provided that:
HAR 11-280.1-20(b)(4) and HAR 11-280.1-20(c)(3)

- ☐ UST system is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life;
  HAR 11-280.1-20(b)(4)(A) and HAR 11-280.1-20(c)(3)(A)

  AND

- ☐ Owners and operators maintain records that demonstrate compliance with the requirements that the UST system is installed at the site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life.
  HAR 11-280.1-20(b)(4)(B) and HAR 11-280.1-20(c)(3)(B)

☐ The UST system construction and corrosion protection are determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment.
HAR 11-280.1-20(b)(5) and HAR 11-280.1-20(c)(4)

B. UST Systems Requiring Cathodic Protection

☑ UST system is constructed of steel and cathodically protected in the following manner:
HAR 11-280.1-20(b)(2)

- ☑ UST system is coated with a suitable dielectric material.
  HAR 11-280.1-20(b)(2)(A)
- ☑ Field-installed cathodic protection systems are designed by a corrosion expert.
  HAR 11-280.1-20(b)(2)(B)
- ☑ Impressed current system are designed to allow determination of current operating status.
  HAR 11-280.1-20(b)(2)(C)
- ☑ Cathodic protection systems are operated and maintained in accordance with section 11-280.1-31 or according to guidelines established by the department.
  HAR 11-280.1-20(b)(2)(D)

Operation and Maintenance of Corrosion Protection

$400	All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground. *HAR 11-280.1-31(1)*	☑ Yes ☐ No ☐ N/A
$400	Cathodic protection systems inspected for proper operation and by a qualified cathodic protection (CP) tester as follows: *HAR 11-280.1-31(2)* Name of Qualified CP Tester: _____ NACE Tech #:_____	☑ Yes ☐ No ☐ N/A
$400	Frequency: All CP systems must be tested within six (6) months of installation or repair and at least every three (3) years thereafter; *HAR 11-280.1-31(2)(A)* **AND**	☑ Yes ☐ No ☐ N/A
	Inspection criteria: The criteria that are used to determine that CP is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association. *HAR 11-280.1-31(2)(B)*	☑ Yes ☐ No ☐ N/A

$100	Testing results from the last 2 inspections required for all CP systems maintained (tested within 6 months after install or repair and at least every 3 years thereafter). *HAR 11-280.1-31(4)* Date of current CP inspection: _____ Date of previous CP inspection: _____	☑ Yes ☐ No ☐ N/A

Comments:

$200	UST systems with impressed current CP systems inspected every sixty (60) days to ensure the equipment is operating properly. *HAR 11-280.1-31(3)* Dates of last 3 inspections: _____, _____ and _____	☑ Yes ☐ No ☐ N/A
	Current readings for impressed current systems Amps: _____ Volts: _____ ☐ N/A	Normal Range of Operation: _____

Comments Re: CORROSION PROTECTION REQUIREMENTS for Pipeline Outside Tunnel and Hydrant Loops

Records were available at the time of the inspection.

Cathodic protection for Product Recovery Tanks (PRT) and hydrant loops are provided by the same rectifiers:
"AMC Terminal: rectifier covers PRT DH and Hydrant Loop (b) (3) (A) .
"CP #2 Hydrant" rectifier covers PRT Ewa and Hydrant Loop (b) (3) (A) .

Cathodic protection systems are inspected on a monthly basis.

Periodic Operation & Maintenance Walkthrough Requirements

PERIODIC OPERATION AND MAINTENANCE WALKTHROUGH INSPECTION REQUIREMENTS

A. All Receipt Points B. All Release Detection Consoles and Release Detection Testing

The periodic operation and maintenance walkthrough inspections for Spill Prevention Equipment and Release Detection Equipment are conducted every 31 days. *HAR 11-280.1-36(a)(1)*

A. Spill prevention equipment: *HAR 11-280.1-36(a)(1)(A)*

- ☑ Visually check for damage;
- ☑ Remove liquid or debris;
- ☐ ~~Check for and remove obstructions in the fill pipe;~~
- ☑ Check the fill cap to make sure it is securely on the fill pipe; **and**
- ☐ For doubled-walled (DW) spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area. **AND**

☑ Yes ☐ No ☐ N/A

B. Release detection equipment: *HAR 11-280.1-36(a)(1)(B)*

- ☐ Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present; **and**
- ☐ Records of release detection testing are reviewed and current.

☐ Yes ☐ No ☑ N/A

$200

31-Day Periodic and Maintenance Walkthrough Inspections

Current Year/Month: _____

From 3 years ago: _____

Monthly Walkthrough reports were available at the time of the inspection.

☑ Yes ☐ No ☐ N/A

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

The periodic operation and maintenance walkthrough inspection for containment sumps used for interstitial monitoring of piping and handheld release detection equipment are conducted every 365 days.
HAR 11-280.1-36(a)(2)

Dates of annual (365 days) inspections: _____, _____ and _____ ☐ Yes ☐ No ☐ N/A

A. Containment sumps: ☐ Yes ☐ No ☐ N/A
HAR 11-280.1-36(a)(2)(A)

- ☐ Visually check for damage, leaks to the containment area, or releases to the Environment;
- ☐ Remove liquid (in contained sumps) or debris; **and**
- ☐ For DW sumps with interstitial monitoring, check for a leak in the interstitial area.

AND

B. Hand held release detection equipment: ☐ Yes ☐ No ☐ N/A

- ☐ Check devices such as tank gauge sticks or groundwater bailers for operability and serviceability.

HAR 11-280.1-36(a)(2)(B)

$200

For UST systems receiving deliveries at intervals greater than every 31 days, the spill prevention equipment is checked prior to each delivery.
HAR 11-280.1-36(a)(3)

☐ Yes ☐ No ☑ N/A

Monthly Walkthrough reports were available at the time of the inspection.

Periodic And Maintenance Walkthrough Inspections For UST Systems Receiving Deliveries At Intervals Greater Than Every 31 Days (e.g. Emergency Generators)

Delivery Dates	Date of Inspection		Delivery Dates	Date of Inspection

$100

Records of the monthly (31 days) and annual (365 days) operation and maintenance walkthrough inspections are maintained for 3 years.
HAR 11-280.1-36(b)

☑ Yes ☐ No ☐ N/A

Comments:

Monthly walkthrough reports were available at the time of the inspection.

PERIODIC OPERATION AND MAINTENANCE WALKTHROUGH INSPECTION REQUIREMENTS

Hydrant Pits and Vaults

When confined space entry IS NOT required by OSHA for Airport Hydrant System (AHS), hydrant pits and hydrant piping vaults, if any, are periodically checked every 31 days.
HAR 11-280.1-36(a)(4)

A. Hydrant Pits:
- ☑ Visually check for any damage;
- ☑ Remove any liquid or debris; **and**
- ☑ Check for any leaks; **AND**

☑ Yes ☐ No ☐ N/A

B. Hydrant piping vaults: Check for any hydrant piping leaks

☑ Yes ☐ No ☐ N/A

$200

31-Day Periodic and Maintenance Walkthrough Inspections

Current Year/Month: Data Reviewed On-site

From 3 years ago: _____

Monthly Walkthrough reports were available at the time of the inspection.

☑ Yes ☐ No ☐ N/A

$200	When confined space entry IS required by OSHA for AHS, hydrant pits and hydrant piping vaults, if any, are periodically checked annually. *HAR 11-280.1-36(a)(4)*	
	Dates of annual (365 days) inspections: _____, _____ and _____	☐ Yes ☐ No ☐ N/A
	A. Hydrant Pits: ☐ Visually check for any damage ☐ Remove any liquid or debris ☐ Check for any leaks	☐ Yes ☐ No ☐ N/A
	B. Hydrant piping vaults: Check for any hydrant piping leaks	☐ Yes ☐ No ☐ N/A
$100	Records of the monthly (31 days) and annual (365 days) operation and maintenance walkthrough inspections are maintained for 3 years. *HAR 11-280.1-36(b)*	☑ Yes ☐ No ☐ N/A

Comments:

Monthly walkthrough reports were available at the time of the inspection.

Containment Sumps Interstitial Monitoring

CONTAINMENT SUMPS FOR INTERSTITIAL MONITORING (CSIM) REQUIREMENTS						
☐ A. The containment sump is double-walled, documents showing that the equipment is double walled, and the integrity of both walls is periodically monitored is maintained. *HAR 11-280.1-35(b)(2)*		CSIM ☐	CSIM ☐	CSIM ☐	CSIM ☐	CSIM ☐
$200	The integrity of both walls is periodically monitored at a frequency not less than annually; *HAR 11-280.1-35(a)(2)(A)* Dates of periodic monitoring: _____, _____, and _____	☐	☐	☐	☐	☐
	OR					
$200	A test is conducted within thirty (30) days of discontinuing periodic monitoring of a double walled containment sump. *HAR 11-280.1-35(a)(2)(A)*	☐	☐	☐	☐	☐
$400	The repaired UST system component is tested appropriately prior to return to use. *HAR 11-280.1-33(a)(6)*	☐	☐	☐	☐	☐
$100	Records of all testing or inspection are maintained for 3 years. *HAR 11-280.1-35(b)(1)*	☐	☐	☐	☐	☐
☐ B. The containment sump is single-walled.		☐	☐	☐	☐	☐
$200	The containment sump used for interstitial monitoring is tested at least once every 3 years in accordance with the manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory. *HAR 11-280.1-35(a)(2)(B)* Date of current testing: _____ Date of previous testing: _____	☐	☐	☐	☐	☐
$400	The repaired UST system component is tested appropriately prior to return to use. *HAR 11-280.1-33(a)(6)*	☐	☐	☐	☐	☐
$100	Records of all testing or inspection are maintained for 3 years. *HAR 11-280.1-35(b)(1)*	☐	☐	☐	☐	☐

Comments:

Under Dispenser Containment

UNDER DISPENSER CONTAINMENT (UDC) REQUIREMENTS – Fuel Issue Points - Not Applicable

		Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp
$300	☐ For AHS & FCT, dispenser system installed prior to July 15, 2018 are exempt from UDC requirements. *HAR 11-280.1-25(a)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$300	☐ Dispenser system installed on or after August 9, 2013 must be provided with an UDC. *HAR 11-280.1-25(b)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is liquid-tight on its sides, bottom, and at any penetrations. *HAR 11-280.1-25(c)(1)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is compatible with the substance conveyed by the piping. *HAR 11-280.1-25(c)(2)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC allows for visual inspection and access to the components in the containment system. *HAR 11-280.1-25(c)(3)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is monitored for leaks from the dispenser system with a sensing device that signals the operator of the presence of regulated substances. *HAR 11-280.1-25(c)(4)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$400	The sensing device is operated and maintained in accordance with the manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory. *HAR 11-280.1-37(a)(1)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$400	The sensing device is inspected for proper operation at least every 365 days. *HAR 11-280.1-37(a)(2)* Testing dates: _____, _____, and _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$100	All written documentation of inspection, testing, and maintenance of the UDC sensing device are maintained for at least 3 years? *HAR 11-280.1-37(b)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Verification of Dispenser Serial Numbers: ***(Export information from the Dispenser Database)***

Not Applicable.

Comments:

Not Applicable.

Survey of Release Detection

SURVEY OF RELEASE DETECTION METHODS Red Hill Tanks F-1 to F-20				
List of Applicable Method, or Combination of Methods, of Release Detection	F-1	F-2	F-3	F-4
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☐	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:
Red Hill Tank F-1 is temporarily out of service since 10/1997.
tank tightness tests on tanks F-2, F-3 and F-4 conducted on a semi annual basis.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

RELEASE DETECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-1	F-2	F-3	F-4
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	NA	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☐
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐
	Recordkeeping	F-1	F-2	F-3	F-4
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	NA	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	NA	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	NA	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	NA	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION METHODS - Red Hill Tanks F-1 to F-20				
List of Applicable Method, or Combination of Methods, of Release Detection	F-5	F-6	F-7	F-8
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☑	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:
MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

RELEASE DETECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-5	F-6	F-7	F-8
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	☑	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☐
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☑ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☑ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☑ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐
	Recordkeeping	F-5	F-6	F-7	F-8
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION METHODS - Red Hill Tanks F-1 to F-20				
List of Applicable Method, or Combination of Methods, of Release Detection	F-9	F-10	F-11	F-12
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☑	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

RELEASE DETECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-9	F-10	F-11	F-12
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	☑	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☐
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐
	Recordkeeping	F-9	F-10	F-11	F-12
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION METHODS - Red Hill Tanks F-1 to F-20

List of Applicable Method, or Combination of Methods, of Release Detection	F-13	F-14	F-15	F-16
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☑	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

RELEASE DETECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-13	F-14	F-15	F-16
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	☑	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☐
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐
	Recordkeeping	F-13	F-14	F-15	F-16
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

SURVEY OF RELEASE DETECTION METHODS - Red Hill Tanks F-1 to F-20				
List of Applicable Method, or Combination of Methods, of Release Detection	F-17	F-18	F-19	F-20
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☑	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.
RD documents were available at the time of the inspection.

RELEASE DETECTION REQUIREMENTS - Red Hill Tanks F-1 to F-20					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-17	F-18	F-19	F-20
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	☑	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☑
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐
	Recordkeeping	F-17	F-18	F-19	F-20
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

SURVEY OF RELEASE DETECTION METHODS - Surge Tanks F-ST1 to F-ST4				
List of Applicable Method, or Combination of Methods, of Release Detection	F-ST1	F-ST2	F-ST3	F-ST4
☑ Conducted an annual tank tightness test (TTT) that can detect a 0.5 gallon per hour (gph) leak rate from any portion of the tank that routinely contain product. *HAR 11-280.1-43(10)(A)*	☑	☑	☑	☑
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to one gallon per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every three years. *HAR 11-280.1-43(10)(B)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Used an automatic tank gauging system to perform release detection at least every thirty-one days that can detect a leak rate less than or equal to two gallons per hour. **AND** ☐ Conducted a tank tightness test (TTT) that can detect a 0.2 gallon per hour leak rate performed at least every two years. *HAR 11-280.1-43(10)(C)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐
☐ Performed vapor monitoring with a tracer compound placed in the tank system, capable of detecting a 0.1 gallon per hour leak rate at least every two years. *HAR 11-280.1-43(10)(D)*	☐	☐	☐	☐
☐ Performed inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through. **AND** ☐ Performed a tank tightness test (TTT) that can detect a 0.5 gallon per hour leak rate at least every two years; **OR** performed vapor monitoring or groundwater monitoring at least every thirty-one days. *HAR 11-280.1-43(10)(E)*	☐ ☐	☐ ☐	☐ ☐	☐ ☐

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.
RD documents were available at the time of the inspection.

Need to figure out which Fuel Surge Tank is manifolded and which was out of service.

RELEASE DETECTION REQUIREMENTS - Surge Tanks F-ST1 to F-ST4

	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-ST1	F-ST2	F-ST3	F-ST4
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	☑	☑	☑	☑
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	☐	☐	☐	☐
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	☐	☐	☐	☐
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	☐	☐	☐	☐
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☑ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☑ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☑ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	☐	☐
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	☐

	Recordkeeping	F-ST1	F-ST2	F-ST3	F-ST4
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☑	☑
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☑	☑
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☑	☑
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☑	☑

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.
RD documents were available at the time of the inspection.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION FOR PIPING Per Method of Product Dispensing

Method of Product Dispensing: ☐ Safe ☐ Unsafe Suction ☑ Pressurized

	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
☐ Safe Suction: Exempt from release detection if ALL the requirements listed below are met:	☐	☐	☐	
☐ The below-grade piping operates at less than atmospheric pressure. *HAR 11-280.1-41(b)(6)(A)*	☐	☐	☐	
☐ The below-grade piping slopes uniformly back to the tank. *HAR 11-280.1-41(b)(6)(B)*	☐	☐	☐	
☐ There is only one check valve in each section line. *HAR 11-280.1-41(b)(6)(C)*	☐	☐	☐	
☐ The check valve is located directly below and as close as practicable to the suction pump. *HAR 11-280.1-41(b)(6)(D)*	☐	☐	☐	
☐ Compliance with above specifications can be readily determined. *HAR 11-280.1-41(b)(6)(E)*	☐	☐	☐	
☐ Unsafe Suction Piping: If Unsafe Suction piping, then leak detection must be provided as follows: *HAR 11-280.1-41(b)*	☐	☐	☐	
☐ A. Line tightness test (0.1 gph)				
☐ Line tightness test conducted every 3 years	☐	☐	☐	
☐ Able to detect 0.1 gph at 1 ½ times operating pressure; **OR**	☐	☐	☐	
☐ B. Perform one of the following monthly monitoring methods:				
☐ Interstitial monitoring	☐	☐	☐	
☐ 0.2 gph line tightness testing method	☐	☐	☐	
☐ Vapor monitoring	☐	☐	☐	
☐ Groundwater monitoring	☐	☐	☐	
☐ Statistical inventory reconciliation	☐	☐	☐	
☑ Pressurized Piping:	YES	YES	NA	NA
☐ Must be provided with an automatic line leak detector (ALLD) that detects leaks of three gallons per hour at ten pounds per square inch line pressure within one hour; **AND** *HAR 11-280.1-44(1)*	NA	NA	NA	NA
☑ A. Line tightness test: *HAR 11-280.1-44(2)*	YES	YES	NA	NA
☑ Able to detect a 0.1 gph leak at 1 ½ times operating Pressure; and	YES	YES	NA	NA
☑ Line tightness test conducted every 365 days; **OR**	YES	YES	NA	NA
☐ B. Monthly monitoring: *HAR 11-280.1-43(7) to (9)*	NA	NA	NA	NA
☐ Able to detect a release from any portion of the underground piping that routinely contains regulated substances; and	NA	NA	NA	NA
☐ Monitoring conducted at least every 30 days; **OR**	NA	NA	NA	NA
☐ C. One or combination of methods listed in HAR 11-280.1-44(4)	NA	NA	NA	NA

Comments:

0.5 gph leak rate at 1 1/2 times operating pressure
MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION METHODS for Pressurized Piping

List of Applicable Method, or Combination of Methods, of Release Detection for Pressurized Piping	Pipeline Outside Tunnel	Hydrant Loops	HickamTruck On-loading Racks	Kuahua Truck On-loading Racks
☐ Interstitial Monitoring *HAR 11-280.1-43(7)*	☐	☐	☐	
☐ Statistical inventory reconciliation *HAR 11-280.1-43(8)*	☐	☐	☐	
☐ Other method, or a combination of methods, that can detect a 0.2 gallon per hour leak rate or a release of one hundred fifty gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or the owner and operator can demonstrate to the department that the method can detect a release as effectively as any of the methods allowed, and the department approves the method. *HAR 11-280.1-43(9)*	☐	☐	☐	
☑ Performed semiannual or annual line tightness test at or above the piping operating pressure in accordance with the table below: *HAR 11-280.1-44(4)(A)(i)*	YES	YES	NA	NA
☐ Piping segment volumes ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the following schedule: *HAR 11-280.1-44(4)(A)(ii)*	NA	NA	NA	NA

MAXIMUM LEAK DETECTION RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test—leak detection rate not to exceed (gallons per hour)	Annual test—leak detection rate not to exceed (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

PHASE IN FOR PIPING SEGMENTS ≥100,000 GALLONS IN VOLUME

First test	Not later than three years after the effective date of these rules (may use up to 6.0 gph leak rate).	NA	NA	NA	NA
Second test	Between three and six years after the effective date of these rules (may use up to 6.0 gph leak rate).	NA	NA	NA	NA
Third test	Between six and seven years after the effective date of these rules (must use 3.0 gph for leak rate).	NA	NA	NA	NA
Subsequent tests	Not later than seven years after the effective date of these rules, begin using semiannual or annual line testing according to the Maximum Leak Detection Rate Per Test Section Volume table above.	NA	NA	NA	NA

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

☐ Performed **vapor monitoring*** capable of detecting a 0.1 gallon per hour leak rate at least every two years *HAR 11-280.1-44(4)(B)*	☐	☐	☐	
☐ Performed **inventory control** at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through; **AND** *HAR 11-280.1-44(4)(C)*	☐	☐	☐	
☐ Performed a Line tightness test at least every two years; **OR**	☐	☐	☐	
☐ Performed **vapor monitoring*** or **groundwater monitoring*** at least every thirty-one day	☐	☐	☐	
☐ Performed another method approved by the department if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed. *HAR 11-280.1-44(4)(D)*	☐	☐	☐	

Comments:

RELEASE DETECTION REQUIREMENTS For Pressurized Piping, As Applicable

☐Vapor Monitoring ☐Groundwater Monitoring ☐Inventory Control

	*Vapor Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$100	Site assessment: Is applicable to system as installed, and documents compliance with 11-280.1-43(5)(A-D), and kept for the life of the method. *HAR 11-280.1-45(1)*	☐	☐	☐	
$400	Number/location of monitoring wells is established. *HAR 11-280.1-43(5)(F)*	☐	☐	☐	
	Backfill is sufficiently porous to allow migration of vapors. *HAR 11-280.1-43(5)(A)*	☐	☐	☐	
	Product (or tracer) is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone. *HAR 11-280.1-43(5)(B)*	☐	☐	☐	
	Measurements of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, soil moisture or other known interferences so that a release could go undetected for more than 31 days. *HAR 11-280.1-43(5)(C)*	☐	☐	☐	
	Level of background contamination will not interfere with measurements/sampling. *HAR 11-280.1-43(5)(D)*	☐	☐	☐	
	System is designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system *HAR 11-280.1-43(5)(E)*	☐	☐	☐	
	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(5)(G)*	☐	☐	☐	

	*Groundwater Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Rack	Kuahua Truck On Loading Rack
$400/$100	Site assessment: Is applicable to system as installed, documents compliant with 11-280.1-43(6)(A-F), and establishes number/location of wells and kept for the life of the method. *HAR 11-280.1-43(6)(G) and HAR 11-280.1-45(1)*	☐	☐	☐	
$400	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(6)(H)*	☐	☐	☐	
	Product stored is immiscible in water and has specific gravity less than one. *HAR 11-280.1-43(6)(A)*	☐	☐	☐	
	Groundwater is never more than 20 feet from ground surface, and hydraulic conductivity is greater than 0.01 cm/sec. *HAR 11-280.1-43(6)(B)*	☐	☐	☐	
	Slotted portion of well casing keeps surrounding soil or filter pack out of well and allows product to flow into well under high and low ground water conditions. *HAR 11-280.1-43(6)(C)*	☐	☐	☐	
	Wells are sealed from ground surface to top of filter pack. *HAR 11-280.1-43(6)(D)*	☐	☐	☐	

Inspector's Name: S. BOBBY OJHA
Inspector's Initial: _____

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

	Wells intercept the excavation zone or as close to excavation zone as is technically feasible. *HAR 11-280.1-43(6)(E)*	☐	☐	☐	
	Equipment can detect at least 1/8th inch of free product. *HAR 11-280.1-43(6)(F)*	☐	☐	☐	
	*Inventory Control **AND** Line Tightness Test **PLUS** Vapor Monitoring **OR** Groundwater Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$400	Inventory is conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures. *HAR 11-280.1-44(4)(C)*	☐	☐	☐	

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

RELEASE DETECTION REQUIREMENTS For Pressurized Piping

	General Requirements for All Pressurized Piping Using A Method, or A Combination of Methods, of Release Detection	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
	Release detection can detect a release from any portion of the piping. *HAR 11-280.1-40(a)(1)*	☑	☑	☐	
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	NA	NA	☐	
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last 3 tests: _____, _____ and _____	NA	NA	☐	
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of training: _____	☑	☑	☐	
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)*				
	☑ The release detection equipment is capable of detecting the leak rate or quantity specified for that method.	☑	☑	☐	
	☑ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met.	☑	☑	☐	
	☑ Fill out *Monthly (30-Day) Release Detection for Tanks and Piping Table*	☑	☑	☐	
	If release detection is not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	☐	☐	☐	

	Recordkeeping	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☑	☑	☐	
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	☑	☑	☐	
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	☑	☑	☐	
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	☑	☑	☐	

Comments:

Release detection datelines for pipelines (Attachment). Pipeline Petroleum Services, Inc. (PPSI), and Hansa Consult of North America, LLC performed the pipeline tightness test.

NA

NA

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

REPAIR REQUIREMENTS – Red Hill Facility (excluding PRTs)				
$400	Repairs to UST systems is properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; *HAR 11-280.1-33(a)(1)*	☑ Yes	☐ No	☐ N/A
$400	Repairs to fiberglass-reinforced plastic tanks was made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized organization or an independent testing laboratory; *HAR 11-280.1-33(a)(2)*	☐ Yes	☐ No	☑ N/A
$400	Metal pipe sections and fittings that have released product as a result of corrosion or other damage were replaced. Non-corrodible pipes and fittings were repaired in accordance with the manufacturer's specifications; *HAR 11-280.1-33(a)(3)*	☐ Yes	☐ No	☑ N/A
$400	Prior to the return to use of a repaired UST system, any repaired USTs passed a tank tightness test in accordance with section 11-280.1-43(3). *HAR 11-280.1-33(a)(4)*	☐ Yes	☑ No	☐ N/A
$400	Prior to the return to use of a repaired UST system, any repaired piping that routinely contains product passed a line tightness test in accordance with section 11-280.1-44(2). *HAR 11-280.1-33(a)(5)*	☐ Yes	☑ No	☐ N/A
$400	Prior to the return to use of a repaired UST system, repairs to secondary containment areas of tanks and piping used for interstitial monitoring, containment sumps used for interstitial monitoring of piping, and containment walls have the secondary containment tested for integrity using vacuum, pressure, or liquid methods in accordance with requirements developed by the manufacturer, a code of practice developed by a nationally recognized association or independent testing laboratory, or requirements established by the department; *HAR 11-280.1-33(a)(6)*	☐ Yes	☐ No	☑ N/A
$200	Within six months following the repair of any cathodically protected UST system, the cathodic protection system was tested in accordance with section 11-280.1-31(2) and (3) to ensure that it is operating properly; and *HAR 11-280.1-33(a)(7)*	☐ Yes	☐ No	☑ N/A
$200	Prior to the return to use of repaired spill or overfill prevention equipment, the repaired spill and/or overfill prevention equipment were tested or inspected, as appropriate, in accordance with section 11-280.1-35 to ensure it is operating properly. *HAR 11-280.1-33(a)(8)*	☐ Yes	☐ No	☑ N/A
$200	UST system owners and operators have maintained records, in accordance with section 11-280.1-34, of each repair until the UST system is permanently closed or undergoes a change-in-service pursuant to section 11-280.1-71. *HAR 11-280.1-33(b)*	☑ Yes	☐ No	☐ N/A

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

Hickam Product Recovery Tanks : Diamond Head And Ewa

Product Recovery Tanks PRT Diamond Head & PRT Ewa

Tank Number	Tank No. PRT-DH	Tank No. PRT-Ewa	
Status of Tank	Currently-In-Use	Currently-In-Use	
Date of Installation	07/01/2010	05/01/2006	
Estimated Capacity	2000	4000	
Compartmentalized	NO	NO	
Manifold	NO	NO	
Substance Stored	Jet Fuel F-24	Jet Fuel F-24	
Tank 1° Containment Material	Steel	Steel	
Tank 2° Containment Material	Steel	Steel	
Corrosion Protection	Impressed Current	Impressed Current	
Piping 1° Containment Material	Steel	Steel	
Piping 2° Containment Material	Lined Trench	Lined Trench	
Method of Product Dispensing	Not Applicable	Not Applicable	
Spill Prevention Equipment	Spill Bucket	N/A	
Overfill Prevention Equipment 1	Overfill Alarm	Overfill Alarm	
Overfill Prevention Equipment 2			
Spill/Overfill, not required *25-gallon limited delivery*	☐	☐	
Release Detection (Tank)	Interstitial Monitoring	Interstitial Monitoring	
Additional Tank RD, *if any*			
Additional Tank RD, *if any*			
Release Detection (Piping)	Line Tightness Test (0.5gph)	Line Tightness Test (0.5gph)	
Additional Piping RD, *if any*			
Additional Piping RD, *if any*			
Automatic line leak detector (ALLD) type, *if any*			
ALLD serial number			

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

Comments: **Product Recovery Tanks PRT Diamond Head & PRT Ewa**

Spill bucket testing needs to be done on PRT Ewa spill bucket.
There is no spill bucket on the Diamond Head PRT tank.

Facility Drawing/Diagram – **Product Recovery Tanks PRT Diamond Head and PRT Ewa**

Hickam ASTs and PRT Tanks

Zoomed View

Note: Include a drawing that shows the general layout of the facility. The drawing may include the following: nearby facilities and/or buildings; indication of North/South direction; identification of streets, roads and nearby bodies of water, if there's any; and location of all USTs and dispenser pumps identified by number/s consistent with the tank & dispenser pump numbers on the current permit, if applicable.

UST System Set-up and Alarm History Printouts – **Product Recovery Tanks PRT Diamond Head and PRT Ewa**

No alarm history reports were available during the inspection.

SPILL PREVENTION REQUIREMENTS – Product Recovery Tanks PRT Diamond Head and PRT Ewa				
☐ Exempt: ☐ Alternative equipment approved by the department is used. *HAR 11-280.1-20(d)(2)(A)* ☐ Transfers of no more than 25 gallons. *HAR 11-280.1-20(d)(2)(B)*		Tank PRT-DH NA NA	Tank PRT-Ewa NA NA	
$300	Spill prevention equipment will prevent release of product to the environment. *HAR 11-280.1-20(d)(1)(A)*	NA	YES	
$200	☐ Spill prevention equipment is double walled and monitored every 31-days; *HAR 11-280.1-35(a)(1)(A)* OR ☐ Spill prevention equipment tested every 365 days. *HAR 11-280.1-35(a)(1)(B)* Date(s) of Services: _____, _____, _____	NA NA	NA NO	
$100	Maintain spill prevention equipment testing/monitoring/inspection records for three years. *HAR 11-280.1-35(b)*	NA	NO	

Comments Re: SPILL PREVENTION REQUIREMENTS – **Product Recovery Tanks PRT Diamond Head and PRT Ewa**

Spill bucket testing is required on PRT-Ewa and has never been conducted prior to this inspection.

OVERFILL PREVENTION REQUIREMENTS – Product Recovery Tanks PRT Diamond Head and PRT Ewa				
	☐ Exempt: ☐ Alternative equipment approved by the department is used. *HAR 11-280.1-20(d)(2)(A)* ☐ Transfers of no more than 25 gallons. *HAR 11-280.1-20(d)(2)(B)*	Tank PRT-DH NA NA	Tank PRT-Ewa NA NA	
$300	Automatically shut off flow into the tank when the tank is no more that 95% full. *HAR 11-280.1-20(d)(1)(B)(i)*	NO	NO	
$300	Overfill alarm alerts the transfer operator when the tank is no more than 90% full by triggering a high-level alarm. *HAR 11-280.1-20(d)(1)(B)(ii)* ☐ Sign clearly labeled ☐ Alarm is visible ☐ Alarm is audible *HAR 11-280.1-20(d)(4)*	NO	NO	
$300	For flow restrictors installed before July 15,2018, must restrict flow thirty minutes prior to overfilling. *HAR 11-280.1-20(d)(3)*	NA	NA	
$200	Overfill prevention equipment inspected every three years. *HAR 11-280.1-35(a)(3)* Current service date: _____ Previous service date: _____	NO	NO	
$100	Maintain overfill prevention equipment testing/inspection records for three years. *HAR 11-280.1-35(b)*	NA	NA	

Comments: OVERFILL PREVENTION REQUIREMENTS – Product Recovery Tanks PRT Diamond Head and PRT Ewa

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

CORRUSION PROTECTION REQUIREMENTS – Product Recovery Tanks PRT Diamond Head and PRT Ewa

A. UST Systems Not Requiring Corrosion Protection

☐ UST system is constructed of fiberglass-reinforced plastic or non-corrodible material.
HAR 11-280.1-20(b)(1) and HAR 11-280.1-20(c)(1)

☐ Tank is constructed of steel and clad or jacketed with a non-corrodible material.
HAR 11-280.1-20(b)(3)

☐ UST system is constructed of metal without additional corrosion protection measures provided that:
HAR 11-280.1-20(b)(4) and HAR 11-280.1-20(c)(3)

- ☐ UST system is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life;
  HAR 11-280.1-20(b)(4)(A) and HAR 11-280.1-20(c)(3)(A)

  AND

- ☐ Owners and operators maintain records that demonstrate compliance with the requirements that the UST system is installed at the site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life.
  HAR 11-280.1-20(b)(4)(B) and HAR 11-280.1-20(c)(3)(B)

☐ The UST system construction and corrosion protection are determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment.
HAR 11-280.1-20(b)(5) and HAR 11-280.1-20(c)(4)

B. UST Systems Requiring Cathodic Protection

☑ UST system is constructed of steel and cathodically protected in the following manner:
HAR 11-280.1-20(b)(2)

- ☑ UST system is coated with a suitable dielectric material.
  HAR 11-280.1-20(b)(2)(A)
- ☑ Field-installed cathodic protection systems are designed by a corrosion expert.
  HAR 11-280.1-20(b)(2)(B)
- ☑ Impressed current system are designed to allow determination of current operating status.
  HAR 11-280.1-20(b)(2)(C)
- ☑ Cathodic protection systems are operated and maintained in accordance with section 11-280.1-31 or according to guidelines established by the department.
  HAR 11-280.1-20(b)(2)(D)

Operation and Maintenance of Corrosion Protection

$400	All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground. *HAR 11-280.1-31(1)*	☑ Yes ☐ No ☐ N/A
$400	Cathodic protection systems inspected for proper operation and by a qualified cathodic protection (CP) tester as follows: *HAR 11-280.1-31(2)* Name of Qualified CP Tester: _____ NACE Tech #:_____	☑ Yes ☐ No ☐ N/A
$400	Frequency: All CP systems must be tested within six (6) months of installation or repair and at least every three (3) years thereafter; *HAR 11-280.1-31(2)(A)* **AND**	☑ Yes ☐ No ☐ N/A
	Inspection criteria: The criteria that are used to determine that CP is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association. *HAR 11-280.1-31(2)(B)*	☑ Yes ☐ No ☐ N/A

$100	Testing results from the last 2 inspections required for all CP systems maintained (tested within 6 months after install or repair and at least every 3 years thereafter). *HAR 11-280.1-31(4)* Date of current CP inspection: _____ Date of previous CP inspection: _____	☑ Yes ☐ No ☐ N/A
Comments:		
$200	UST systems with impressed current CP systems inspected every sixty (60) days to ensure the equipment is operating properly. *HAR 11-280.1-31(3)* Dates of last 3 inspections: _____, _____ and _____	☑ Yes ☐ No ☐ N/A
	Current readings for impressed current systems Amps: _____ Volts: _____ ☐ N/A	Normal Range of Operation: _____

Comments Re: Product Recovery Tanks PRT Diamond Head and PRT Ewa

Documents were available at time of inspection.

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

CONTAINMENT SUMPS FOR INTERSTITIAL MONITORING (CSIM) REQUIREMENTS – Product Recovery Tanks PRT Diamond Head and PRT Ewa						
☐ A. The containment sump is double-walled, documents showing that the equipment is double walled, and the integrity of both walls is periodically monitored is maintained. *HAR 11-280.1-35(b)(2)*	CSIM ☐	CSIM ☐	CSIM ☐	CSIM ☐	CSIM ☐	
$200	The integrity of both walls is periodically monitored at a frequency not less than annually; *HAR 11-280.1-35(a)(2)(A)* Dates of periodic monitoring: _____, _____, and _____	☐	☐	☐	☐	☐
	OR					
$200	A test is conducted within thirty (30) days of discontinuing periodic monitoring of a double walled containment sump. *HAR 11-280.1-35(a)(2)(A)*	☐	☐	☐	☐	☐
$400	The repaired UST system component is tested appropriately prior to return to use. *HAR 11-280.1-33(a)(6)*	☐	☐	☐	☐	☐
$100	Records of all testing or inspection are maintained for 3 years. *HAR 11-280.1-35(b)(1)*	☐	☐	☐	☐	☐
☐ B. The containment sump is single-walled.		☐	☐	☐	☐	☐
$200	The containment sump used for interstitial monitoring is tested at least once every 3 years in accordance with the manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory. *HAR 11-280.1-35(a)(2)(B)* Date of current testing: _____ Date of previous testing: _____	☐	☐	☐	☐	☐
$400	The repaired UST system component is tested appropriately prior to return to use. *HAR 11-280.1-35(a)(6)*	☐	☐	☐	☐	☐
$100	Records of all testing or inspection are maintained for 3 years. *HAR 11-280.1-35(b)(1)*	☐	☐	☐	☐	☐
Comments:						

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

UNDER DISPENSER CONTAINMENT (UDC) REQUIREMENTS – Product Recovery Tanks
PRT Diamond Head and PRT Ewa

		Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp	Disp
$300	☐ For AHS & FCT, dispenser system installed prior to July 15, 2018 are exempt from UDC requirements. *HAR 11-280.1-25(a)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$300	☐ Dispenser system installed on or after August 9, 2013 must be provided with an UDC. *HAR 11-280.1-25(b)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is liquid-tight on its sides, bottom, and at any penetrations. *HAR 11-280.1-25(c)(1)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is compatible with the substance conveyed by the piping. *HAR 11-280.1-25(c)(2)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC allows for visual inspection and access to the components in the containment system. *HAR 11-280.1-25(c)(3)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐ The UDC is monitored for leaks from the dispenser system with a sensing device that signals the operator of the presence of regulated substances. *HAR 11-280.1-25(c)(4)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$400	The sensing device is operated and maintained in accordance with the manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory. *HAR 11-280.1-37(a)(1)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$400	The sensing device is inspected for proper operation at least every 365 days. *HAR 11-280.1-37(a)(2)* Testing dates: _____, _____, and _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
$100	All written documentation of inspection, testing, and maintenance of the UDC sensing device are maintained for at least 3 years? *HAR 11-280.1-37(b)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Verification of Dispenser Serial Numbers: ***(Export information from the Dispenser Database)***

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

PERIODIC OPERATION AND MAINTENANCE WALKTHROUGH INSPECTION REQUIREMENTS

Product Recovery Tanks PRT Diamond Head and PRT Ewa

The periodic operation and maintenance walkthrough inspections for Spill Prevention Equipment and Release Detection Equipment are conducted every 31 days. *HAR 11-280.1-36(a)(1)*

A. Spill prevention equipment: *HAR 11-280.1-36(a)(1)(A)*

- ☑ Visually check for damage
- ☐ Remove liquid or debris
- ☑ Check for and remove obstructions in the fill pipe
- ☑ Check the fill cap to make sure it is securely on the fill pipe
- ☐ For doubled-walled (DW) spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area.

B. Release detection equipment: *HAR 11-280.1-36(a)(1)(B)*

- ☐ Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present
- ☐ Records of release detection testing are reviewed and current

31-Day Periodic and Maintenance Walkthrough Inspections

Current Year/Month: _____

From 3 years ago: _____

$200

☐ Yes ☑ No ☐ N/A

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

$200	The periodic operation and maintenance walkthrough inspection for containment sumps used for interstitial monitoring of piping and handheld release detection equipment are conducted every 365 days. *HAR 11-280.1-36(a)(2)* A. Containment sumps: *HAR 11-280.1-36(a)(2)(A)* ☐ Visually check for damage, leaks to the containment area, or releases to the environment ☐ Remove liquid (in contained sumps) or debris ☐ For DW sumps with interstitial monitoring, check for a leak in the interstitial area B. Hand held release detection equipment: ☐ check devices such as tank gauge sticks or groundwater bailers for operability and serviceability. *HAR 11-280.1-36(a)(2)(B)* Dates of annual (365 days) inspections: _____, _____ and _____	☐ Yes ☐ No ☑ N/A
	For UST systems receiving deliveries at intervals greater than every 31 days, the spill prevention equipment is checked prior to each delivery. *HAR 11-280.1-36(a)(3)* **Periodic And Maintenance Walkthrough Inspections For UST Systems Receiving Deliveries At Intervals Greater Than Every 31 Days (e.g. Emergency Generators)** Delivery Dates | Date of Inspection | Delivery Dates | Date of Inspection	☐ Yes ☐ No ☑ N/A
$200	When confined space entry IS NOT required by OSHA for Airport Hydrant System (AHS), hydrant pits and hydrant piping vaults, if any, are periodically checked every 31 days. *HAR 11-280.1-36(a)(4)*	☐ Yes ☐ No ☑ N/A
	When confined space entry IS required by OSHA for AHS, hydrant pits and hydrant piping vaults, if any, are periodically checked annually. *HAR 11-280.1-36(a)(4)*	☐ Yes ☐ No ☑ N/A
$100	Records of the monthly (31 days) and annual (365 days) operation and maintenance walkthrough inspections are maintained for 3 years. *HAR 11-280.1-36(b)*	☑ Yes ☐ No ☐ N/A

Comments:

Documents were available at time of inspeciton.

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

I. RELEASE DETECTION REQUIREMENTS FOR TANKS – Product Recovery Tanks PRT Diamond Head and PRT Ewa

General Requirements for All Tanks Using A Method, or A Combination of Methods, Listed Below

☐ Inventory Control (C) ☐ Manual Tank Gauging (MTG) ☐ Tank Tightness Testing (TTT)
☑ Interstitial Monitoring (IM) ☐ Automatic Tank Gauging (ATG)

		Tank PRT-DH	Tank PRT-Ewa
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	NO	NO
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	NA	NA
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	NA	NA
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	YES	YES
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)* ☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method. ☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met. ☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	NA	NA
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	NA	NA
Recordkeeping		PRT-DH	PRT-Ewa
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	NA	NA
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	NA	NA
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	YES	YES
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	NA	NA

Comments:

Is there a sensor within the interstitial space within both tanks? Ask HDOH

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

Tank Release Detection Methods – Product Recovery Tanks PRT Diamond Head and PRT Ewa

Inventory Control	Tank PRT-DH	Tank PRT-Ewa	
Product inventory control is conducted every 31 days to detect a release of at least 1% flow through plus 130 gallons. *HAR 11-280.1-43(1)*	☐	☐	
The daily tank liquid level measurements are recorded. *HAR 11-280.1-43(1)(A)*	☐	☐	
The equipment is capable of measuring to 1/8th inch accuracy in tank liquid level measurements. *HAR 11-280.1-43(1)(B)*	☐	☐	
Gauging Device: measurements made through drop tube, which extends to within one foot of bottom of tank (i.e., manual device only), and readings taken to the nearest 1/8th inch. *HAR 11-280.1-43(1)(C)*	☐	☐	
Before and after delivery, the tank liquid level measurements are reconciled with volume according to delivery receipt. *HAR 11-280.1-43(1)(D)*	☐	☐	
The drop tube present in tank fill pipe is within one foot of tank bottom. *HAR 11-280.1-43(1)(E)*	☐	☐	
The dispenser meter is calibrated. *HAR 11-280.1-43(1)(F)*	☐	☐	
Check for water to 1/8th inch accuracy is conducted every month. *HAR 11-280.1-43(1)(G)*	☐	☐	

$400

Manual Tank Gauging (MTG)	Tank PRT-DH	Tank PRT-Ewa	
Nominal capacity is 2,000 gallons or less and if tank tightness test is applicable. *HAR 11-280.1-43(2)(F)*	☐	☐	
Operation and maintenance of MTG is every 31 days. *HAR 11-280.1-45(2)*	☐	☐	
MTG is conducted for appropriate time period (test duration according to standard list in table), during which no liquid is added to or removed from the tank. *HAR 11-280.1-43(2)(A)*	☐	☐	

$400

Nominal tank capacity	Minimum duration of test	Weekly Standard (one test)	Monthly Standard (four test Average)
550 gallons or less	36 hours	10 gallons	5 gallons
551-1,000 gallons (when tank diameter is 64 inches)	44 hours	9 gallons	4 gallons
551-1,000 gallons (when tank diameter is 48 inches)	58 hours	12 gallons	6 gallons
551-1,000 gallons (also requires periodic tank tightness testing)	36 hours	13 gallons	7 gallons
1,000-2,000 gallons (also require periodic tank tightness testing)	36 hours	26 gallons	13 gallons
Note: Weekly measurements taken, and if five weeks in the month, then the weekly test with smallest discrepancy is not used.			

Gauging device: Measurements taken through drop tube (for manual device), and readings taken to nearest 1/8th inch, and within one foot of tank bottom. *HAR 11-280.1-43(2)(B)*	☐	☐	

	Readings are based on average of two stick readings taken at both the beginning and ending of the time period. *HAR 11-280.1-43(2)(C)*	☐	☐	
	The equipment used is capable of measuring to 1/8th inch accuracy. *HAR 11-280.1-43(2)(D)*	☐	☐	
	Variation between beginning and ending measurements is checked against weekly and monthly standards in table, and determination is made whether a release is suspected. *HAR 11-280.1-43(2)(E)*	☐	☐	
Tank Tightness Testing (TTT)		Tank PRT-DH	Tank PRT-Ewa	
$400	Able to detect a 0.1 gallon per hour (gph) leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table. *HAR 11-280.1-43(3)* Dates of the last 3 TTT: _____, _____, _____	☐	☐	
Automatic Tank Gauging (ATG)		Tank PRT-DH	Tank PRT-Ewa	
$400	Detects a 0.2 gph leak rate from any portion of the tank, with a 0.95 Probability of detection (Pd) and 0.05 Probability of false alarm (Pfa). *HAR 11-280.1-43(4)(A) and HAR 11-280.1-40(a)(5)*	☐	☐	
Interstitial Monitoring (IM)		Tank PRT-DH	Tank PRT-Ewa	
$400	Designed, constructed, and installed to detect a leak from any portion of the tank, and meets one of the following: *HAR 11-280.1-43(7)*			
	☑ A double walled system that can detect a release through the inner wall; *HAR 11-280.1-43(7)(A)*	YES	YES	
	OR			
	☐ For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a leak between the UST system and the secondary barrier; *HAR 11-280.1-43(7)(B)*	NA	NA	
	OR			
	☐ An internal lined system with an automated device that can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the stored substance. *HAR 11-280.1-43(7)(C)*	NA	NA	

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

II. RELEASE DETECTION REQUIREMENTS FOR PIPING PER METHOD OF PRODUCT DISPENSING
Product Recovery Tanks - PRT Diamond Head and PRT Ewa

Method of Product Dispensing ☐ Safe ☐ Unsafe Suction ☑ Pressurized	Piping PRT-DH	Piping PRT-Ewa	
☐ Safe Suction: Exempt from release detection if ALL the requirements listed below are met:	☐	☐	
☐ The below-grade piping operates at less than atmospheric pressure. *HAR 11-280.1-41(b)(6)(A)*	☐	☐	
☐ The below-grade piping slopes uniformly back to the tank. *HAR 11-280.1-41(b)(6)(B)*	☐	☐	
☐ There is only one check valve in each section line. *HAR 11-280.1-41(b)(6)(C)*	☐	☐	
☐ The check valve is located directly below and as close as practicable to the suction pump. *HAR 11-280.1-41(b)(6)(D)*			
☐ Compliance with above specifications can be readily determined. *HAR 11-280.1-41(b)(6)(E)*	☐	☐	
☐ Unsafe Suction Piping: If Unsafe Suction piping, then leak detection must be provided as follows: *HAR 11-280.1-41(b)*	☐	☐	
☐ A. Line tightness test (0.1 gph)	☐	☐	
☐ Line tightness test conducted every 3 years	☐	☐	
☐ Able to detect 0.1 gph at 1 ½ times operating pressure; **OR**	☐	☐	
☐ B. Perform one of the following monthly monitoring methods: (USE THE APPROPRIATE CHECKLIST)	☐	☐	
☐ Interstitial monitoring	☐	☐	
☐ 0.2 gph line tightness testing method	☐	☐	
☐ Vapor monitoring	☐	☐	
☐ Groundwater monitoring	☐	☐	
☐ Statistical inventory reconciliation	☐	☐	
☑ Pressurized Piping: MUST be provided with an automatic line leak detector (ALLD) **AND** either:			
☑ A. Line tightness test (0.1 gph)	Yes	Yes	
☑ Able to detect a 0.1 gph leak at 1 ½ times operating pressure	Yes	Yes	
☑ Line tightness test conducted every 365 days; **OR**			
☐ B. Perform one of the following monthly monitoring methods: (USE THE APPROPRIATE CHECKLIST)	N/A	N/A	
☐ Interstitial monitoring	N/A	N/A	
☐ 0.2 gph line tightness testing method	N/A	N/A	
☐ Vapor monitoring	N/A	N/A	
☐ Groundwater monitoring	N/A	N/A	
☐ Statistical inventory reconciliation	N/A	N/A	

Comments:

Appears to be using Line Tightness Test (LTT) performed annually for the sections of piping run that are underground between the tank and the pump house.

The product in the product piping goes back into the large ASTs within the Hickam AST farm.

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

III. RELEASE DETECTION REQUIREMENTS FOR PIPING – Product Recovery Tanks PRT Diamond Head and PRT Ewa

General Requirements for All Piping Using A Method, or A Combination of Methods, Listed Below

		PRT-DH	PRT-Ewa	
	Applicable release detection method, or combination of methods, is provided. ☐ Interstitial Monitoring: Designed, constructed, and installed to detect a leak from any portion of the piping, and a double walled system that can detect a release through the inner wall. *HAR 11-280.1-43(7)*	YES	YES	
	☐ Line Tightness Testing (0.2): Able to detect a 0.2 gph leak rate with a 0.95 Pd and 0.05 Pfa. *HAR 11-280.1-43(9)*	YES	YES	
	Release detection can detect a release from any portion of the piping. *HAR 11-280.1-40(a)(1)*	YES	YES	
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	NA	NA	
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last 3 tests: _____, _____ and _____	NA	NA	
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of training: _____	NA	NA	
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)*			
	☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method.	NA	NA	
	☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met.	NA	NA	
	☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	NA	NA	
	If release detection is not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	NA	NA	
Recordkeeping				
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	NA	NA	
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	NA	NA	
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	NA	NA	
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	NA	NA	

Comments:

Where does the liquid from PRT tanks go once they get full. Is there piping? We need clarification.
Navy needs to confirm and submit the valid release detection method for the piping associated with the PRTs, including any 3rd party certifications, full report of test results, 31-day release detection monitoring.
Is the system a suction system since we didn't see a turbine sump. The pump house has jet fuel piping to the emergency generator and it appears to be underground piping, which we didn't see. Is it pressurized/suction?

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

IV. RELEASE DETECTION REQUIREMENTS FOR ALL OTHER METHODS – Product Recovery Tanks
PRT Diamond Head and PRT

General Requirements for All Other Methods
Vapor Monitoring (VM), Groundwater Monitoring (GWM) and Statistical Inventory Reconciliation (SIR)

		PRT-DH	PRT-Ewa	
	Tanks installed before August 9, 2013 must be monitored for releases at least every 31 days using one of the methods listed in section 11-280.1-43(4) to (9) except, *HAR 11-280.1-41(a)(1)(A)*			
	☐ UST systems meet performance standards in section 11-280.1-20, and the monthly inventory control requirements in section 11-280.1-43(1) or (2), may use tank tightness testing at least every 5 years until 10 years after the tank was installed; *HAR 11-280.1-41(a)(1)(A)(i)*	☐	☐	
	AND			
	☐ Tanks with capacity of 550 gallons or less and tanks with a capacity of 551 to 1,000 gallons that meet the tank diameter criteria in section 11-280.1-43(2) may use manual tank gauging. *HAR 11-280.1-41(a)(1)(A)(ii)*	☐	☐	
	If release detection requirements cannot be met, then must complete the change-in-service or closure procedures. *HAR 11-280.1-40(c)*	☐	☐	
$400	Release detection can detect a release from any portion of the UST system. *HAR 11-280.1-40(a)(1)*	☐	☐	
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)* Dates of the last 3 tests: _____, _____ and _____	☐	☐	
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)*	☐	☐	
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(3)* Technician's Name: _____ Exp. of training: _____	☐	☐	
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)*			
	☐ The release detection equipment is capable of detecting the leak rate or quantity specified for that method.	☐	☐	
	☐ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met	☐	☐	
	☐ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	☐	☐	
Recordkeeping		**PRT-DH**	**PRT-Ewa**	
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	☐	☐	
$100	The results for any sampling, testing, or monitoring are maintained for at least three years. *HAR 11-280.1-45(2)*	☐	☐	
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three years after the records are generated. *HAR 11-280.1-45(3)*	☐	☐	
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three years. *HAR 11-280.1-45(4)*	☐	☐	

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

RELEASE DETECTION REQUIREMENTS FOR ALL OTHER METHODS – Product Recovery Tanks PRT Diamond Head and PRT Ewa

☐Vapor Monitoring ☐Groundwater Monitoring ☐Statistical Inventory Reconciliation (SIR)

	Vapor Monitoring	UST System PRT-DH	UST System PRT-Ewa	
$100	Site assessment: Is applicable to system as installed, and documents compliance with 11-280.1-43(5)(A-D), and kept for the life of the method. *HAR 11-280.1-45(1)*	☐	☐	
$400	Number/location of monitoring wells is established. *HAR 11-280.1-43(5)(F)*	☐	☐	
	Backfill is sufficiently porous to allow migration of vapors. *HAR 11-280.1-43(5)(A)*	☐	☐	
	Product (or tracer) is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone. *HAR 11-280.1-43(5)(B)*	☐	☐	
	Measurements of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, soil moisture or other known interferences so that a release could go undetected for more than 31 days. *HAR 11-280.1-43(5)(C)*	☐	☐	
	Level of background contamination will not interfere with measurements/sampling. *HAR 11-280.1-43(5)(D)*	☐	☐	
	System is designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system *HAR 11-280.1-43(5)(E)*	☐	☐	
	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(5)(G)*	☐	☐	

	Groundwater Monitoring	UST System PRT-DH	UST System PRT-Ewa	
$400/$100	Site assessment: Is applicable to system as installed, documents compliant with 11-280.1-43(6)(A-F), and establishes number/location of wells and kept for the life of the method. *HAR 11-280.1-43(6)(G) and HAR 11-280.1-45(1)*	☐	☐	
$400	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(6)(H)*	☐	☐	
	Product stored is immiscible in water and has specific gravity less than one. *HAR 11-280.1-43(6)(A)*	☐	☐	
	Groundwater is never more than 20 feet from ground surface, and hydraulic conductivity is greater than 0.01 cm/sec. *HAR 11-280.1-43(6)(B)*	☐	☐	
	Slotted portion of well casing keeps surrounding soil or filter pack out of well and allows product to flow into well under high and low ground water conditions. *HAR 11-280.1-43(6)(C)*	☐	☐	
	Wells are sealed from ground surface to top of filter pack. *HAR 11-280.1-43(6)(D)*	☐	☐	
	Wells intercept the excavation zone or as close to excavation zone as is technically feasible. *HAR 11-280.1-43(6)(E)*	☐	☐	
	Equipment can detect at least 1/8th inch of free product. *HAR 11-280.1-43(6)(F)*	☐	☐	

Inspector's Name S. BOBBY OJHA

02/28/22 to 03/04/22

Assisting Inspector, if any: RICK SAKOW

Statistical Inventory Reconciliation (SIR)		UST System PRT-DH	UST System PRT-Ewa	
$400	Inventory is conducted according to provider's specifications. *HAR 11-280.1-43(8)*	☐	☐	
	☐ Report a quantitative result with a calculated leak rate. *HAR 11-280.1-43(8)(A)*	☐	☐	
	☐ Capable of detecting a leak rate of 0.2 gph or a release of 150 gallons within 31 days. *HAR 11-280.1-43(8)(B)*	☐	☐	
	☐ Use a threshold that does not exceed one-half the minimum detectible leak rate. *HAR 11-280.1-43(8)(B)*	☐	☐	
Comments:				

RELEASE DETECTION REQUIREMENTS - Surge Tanks F-ST1 to F-ST4					
	General Requirements for All Tanks Using A Method, or A Combination of Methods, of Release Detection	F-ST1	F-ST2	F-ST3	F-ST4
$400	Release detection can detect a release from any portion of the UST. *HAR 11-280.1-40(a)(1)*	YES	YES	YES	YES
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	NA	NA	NA	NA
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last three (3) tests: _____, _____ and _____	NA	NA	NA	NA
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of Training: _____	NA	NA	NA	NA
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)*				
	☑ The release detection equipment is capable of detecting the leak rate or quantity specified for that method.	YES	YES	YES	YES
	☑ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met.	YES	YES	YES	YES
	☑ Fill out *Monthly (31-Day) Release Detection for Tanks and Piping Table*	YES	YES	YES	YES
	If release detection requirements are not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	NA	NA	NA	NA
	Recordkeeping	F-ST1	F-ST2	F-ST3	F-ST4
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	YES	YES	YES	YES
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	YES	YES	YES	YES
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	YES	YES	YES	YES
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	YES	YES	YES	YES

Comments:

MTC tank tightness test is third party certified by Ken Wilcox Associates.
Michael Baker International (Michael Baker) professional engineer certifies tank tightness test results.
RD documents were available at the time of the inspection.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION FOR PIPING Per Method of Product Dispensing

Method of Product Dispensing ☐ Safe ☐ Unsafe Suction ☑ Pressurized	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
☐ Safe Suction: Exempt from release detection if ALL the requirements listed below are met:	☐	☐	☐	
☐ The below-grade piping operates at less than atmospheric pressure. *HAR 11-280.1-41(b)(6)(A)*	☐	☐	☐	
☐ The below-grade piping slopes uniformly back to the tank. *HAR 11-280.1-41(b)(6)(B)*	☐	☐	☐	
☐ There is only one check valve in each section line. *HAR 11-280.1-41(b)(6)(C)*	☐	☐	☐	
☐ The check valve is located directly below and as close as practicable to the suction pump. *HAR 11-280.1-41(b)(6)(D)*	☐	☐	☐	
☐ Compliance with above specifications can be readily determined. *HAR 11-280.1-41(b)(6)(E)*	☐	☐	☐	
☐ Unsafe Suction Piping: If Unsafe Suction piping, then leak detection must be provided as follows: *HAR 11-280.1-41(b)*	☐	☐	☐	
☐ A. Line tightness test (0.1 gph)				
☐ Line tightness test conducted every 3 years	☐	☐	☐	
☐ Able to detect 0.1 gph at 1 ½ times operating pressure; **OR**	☐	☐	☐	
☐ B. Perform one of the following monthly monitoring methods:				
☐ Interstitial monitoring	☐	☐	☐	
☐ 0.2 gph line tightness testing method	☐	☐	☐	
☐ Vapor monitoring	☐	☐	☐	
☐ Groundwater monitoring	☐	☐	☐	
☐ Statistical inventory reconciliation	☐	☐	☐	
☑ Pressurized Piping:	N/A	N/A	N/A	N/A
☐ Must be provided with an automatic line leak detector (ALLD) that detects leaks of three gallons per hour at ten pounds per square inch line pressure within one hour; **AND** *HAR 11-280.1-44(1)*	N/A	N/A	N/A	N/A
☑ A. Line tightness test: *HAR 11-280.1-44(2)*	Yes	Yes	N/A	N/A
☑ Able to detect a 0.1 gph leak at 1 ½ times operating Pressure; and	Yes	Yes	N/A	N/A
☑ Line tightness test conducted every 365 days; **OR**	Yes	Yes	N/A	N/A
☐ B. Monthly monitoring: *HAR 11-280.1-43(7) to (9)*				
☐ Able to detect a release from any portion of the underground piping that routinely contains regulated substances; and	N/A	N/A	N/A	N/A
☐ Monitoring conducted at least every 30 days; **OR**	N/A	N/A	N/A	N/A
☐ C. One or combination of methods listed in HAR 11-280.1-44(4)	N/A	N/A	N/A	N/A

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

SURVEY OF RELEASE DETECTION METHODS for Pressurized Piping

List of Applicable Method, or Combination of Methods, of Release Detection for Pressurized Piping	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
☐ Interstitial Monitoring *HAR 11-280.1-43(7)*	☐	☐	☐	
☐ Statistical inventory reconciliation *HAR 11-280.1-43(8)*	☐	☐	☐	
☐ Other method, or a combination of methods, that can detect a 0.2 gallon per hour leak rate or a release of one hundred fifty gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or the owner and operator can demonstrate to the department that the method can detect a release as effectively as any of the methods allowed, and the department approves the method. *HAR 11-280.1-43(9)*	☐	☐	☐	
☑ Performed semiannual or annual line tightness test at or above the piping operating pressure in accordance with the table below: *HAR 11-280.1-44(4)(A)(i)*	N/A	N/A	N/A	N/A
☐ Piping segment volumes ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the following schedule: *HAR 11-280.1-44(4)(A)(ii)*	N/A	N/A	N/A	N/A

MAXIMUM LEAK DETECTION RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test—leak detection rate not to exceed (gallons per hour)	Annual test—leak detection rate not to exceed (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

PHASE IN FOR PIPING SEGMENTS ≥100,000 GALLONS IN VOLUME

First test	Not later than three years after the effective date of these rules (may use up to 6.0 gph leak rate).	N/A	N/A	N/A	N/A
Second test	Between three and six years after the effective date of these rules (may use up to 6.0 gph leak rate).	N/A	N/A	N/A	N/A
Third test	Between six and seven years after the effective date of these rules (must use 3.0 gph for leak rate).	N/A	N/A	N/A	N/A
Subsequent tests	Not later than seven years after the effective date of these rules, begin using semiannual or annual line testing according to the Maximum Leak Detection Rate Per Test Section Volume table above.	N/A	N/A	N/A	N/A

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

☐ Performed **vapor monitoring*** capable of detecting a 0.1 gallon per hour leak rate at least every two years *HAR 11-280.1-44(4)(B)*	☐	☐	☐	
☐ Performed **inventory control*** at least every thirty-one days that can detect a leak equal to or less than 0.5 percent of flow-through; **AND** *HAR 11-280.1-44(4)(C)*	☐	☐	☐	
☐ Performed a Line tightness test at least every two years; **OR**	☐	☐	☐	
☐ Performed **vapor monitoring*** or **groundwater monitoring*** at least every thirty-one day	☐	☐	☐	
☐ Performed another method approved by the department if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed. *HAR 11-280.1-44(4)(D)*	☐	☐	☐	

Comments:

RELEASE DETECTION REQUIREMENTS For Pressurized Piping, As Applicable

☐ Vapor Monitoring ☐ Groundwater Monitoring ☐ Inventory Control

	*Vapor Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$100	Site assessment: Is applicable to system as installed, and documents compliance with 11-280.1-43(5)(A-D), and kept for the life of the method. *HAR 11-280.1-45(1)*	☐	☐	☐	
$400	Number/location of monitoring wells is established. *HAR 11-280.1-43(5)(F)*	☐	☐	☐	
	Backfill is sufficiently porous to allow migration of vapors. *HAR 11-280.1-43(5)(A)*	☐	☐	☐	
	Product (or tracer) is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone. *HAR 11-280.1-43(5)(B)*	☐	☐	☐	
	Measurements of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, soil moisture or other known interferences so that a release could go undetected for more than 31 days. *HAR 11-280.1-43(5)(C)*	☐	☐	☐	
	Level of background contamination will not interfere with measurements/sampling. *HAR 11-280.1-43(5)(D)*	☐	☐	☐	
	System is designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system *HAR 11-280.1-43(5)(E)*	☐	☐	☐	
	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(5)(G)*	☐	☐	☐	

	*Groundwater Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$400/$100	Site assessment: Is applicable to system as installed, documents compliant with 11-280.1-43(6)(A-F), and establishes number/location of wells and kept for the life of the method. *HAR 11-280.1-43(6)(G) and HAR 11-280.1-45(1)*	☐	☐	☐	
$400	Wells are clearly marked and secured to avoid unauthorized access and tampering. *HAR 11-280.1-43(6)(H)*	☐	☐	☐	
	Product stored is immiscible in water and has specific gravity less than one. *HAR 11-280.1-43(6)(A)*	☐	☐	☐	
	Groundwater is never more than 20 feet from ground surface, and hydraulic conductivity is greater than 0.01 cm/sec. *HAR 11-280.1-43(6)(B)*	☐	☐	☐	
	Slotted portion of well casing keeps surrounding soil or filter pack out of well and allows product to flow into well under high and low ground water conditions. *HAR 11-280.1-43(6)(C)*	☐	☐	☐	
	Wells are sealed from ground surface to top of filter pack. *HAR 11-280.1-43(6)(D)*	☐	☐	☐	

Inspector's Name: S. BOBBY OJHA
Inspector's Initial: _____

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

	Wells intercept the excavation zone or as close to excavation zone as is technically feasible. *HAR 11-280.1-43(6)(E)*	☐	☐	☐	
	Equipment can detect at least 1/8th inch of free product. *HAR 11-280.1-43(6)(F)*	☐	☐	☐	
	*Inventory Control **AND** Line Tightness Test **PLUS** Vapor Monitoring **OR** Groundwater Monitoring	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$400	Inventory is conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures. *HAR 11-280.1-44(4)(C)*	☐	☐	☐	

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

RELEASE DETECTION REQUIREMENTS For Pressurized Piping					
	General Requirements for All Pressurized Piping Using A Method, or A Combination of Methods, of Release Detection	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
	Release detection can detect a release from any portion of the piping. *HAR 11-280.1-40(a)(1)*	YES	YES	YES	YES
$400	The release detection is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, and routine service and maintenance checks. *HAR 11-280.1-40(a)(3)*	NA	NA	NA	NA
$400	The release detection equipment is tested for proper operation at least every 365 days or in a time frame recommended by the equipment manufacturer, whichever is more frequent. *HAR 11-280.1-40(a)(4)* Dates of the last 3 tests: _____, _____ and _____	YES	YES	YES	YES
$400	All maintenance and service of the release detection equipment are conducted by a technician with current certification or training appropriate to the equipment serviced. *HAR 11-280.1-40(a)(4)* Technician's Name: _____ Exp. of training: _____	YES	YES	YES	YES
$400	The release detection equipment meets the performance requirements specified for that method. *HAR 11-280.1-40(a)(5)*				
	☑ The release detection equipment is capable of detecting the leak rate or quantity specified for that method.	YES	YES	YES	YES
	☑ The probability of detection (Pd) of 0.95 and the probability of false alarm (Pfa) of 0.05 are met.	YES	YES	YES	YES
	☑ Fill out *Monthly (30-Day) Release Detection for Tanks and Piping Table*	YES	YES	YES	YES
	If release detection is not met, then completed change-in-service, or closure. *HAR 11-280.1-40(c)*	NA	NA	NA	NA
	Recordkeeping	Pipeline Outside Tunnel	Hydrant Loops	Hickam Truck On Loading Racks	Kuahua Truck On Loading Racks
$100	All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, are maintained for the operating life of the UST system. *HAR 11-280.1-45(1)*	YES	YES	YES	YES
$100	The results of any sampling, testing, or monitoring are maintained for at least three (3) years. *HAR 11-280.1-45(2)*	YES	YES	YES	YES
$100	All records that the equipment being utilized to monitor or maintain the UST system is designed to produce are maintained for at least three (3) years after the records are generated. *HAR 11-280.1-45(3)*	YES	YES	YES	YES
$100	Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site are maintained for at least three (3) years. *HAR 11-280.1-45(4)*	YES	YES	YES	YES

Comments:

Release detection datelines for pipelines (Attachment). Pipeline Petroleum Services, Inc. (PPSI), and Hansa Consult of North America, LLC performed the pipeline tightness test.

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

REPAIR REQUIREMENTS – Red Hill Facility (excluding PRTs)				
$400	Repairs to UST systems is properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; *HAR 11-280.1-33(a)(1)*	☑ Yes	☐ No	☐ N/A
$400	Repairs to fiberglass-reinforced plastic tanks was made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized organization or an independent testing laboratory; *HAR 11-280.1-33(a)(2)*	☐ Yes	☐ No	☑ N/A
$400	Metal pipe sections and fittings that have released product as a result of corrosion or other damage were replaced. Non-corrodible pipes and fittings were repaired in accordance with the manufacturer's specifications; *HAR 11-280.1-33(a)(3)*	☐ Yes	☐ No	☑ N/A
$400	Prior to the return to use of a repaired UST system, any repaired USTs passed a tank tightness test in accordance with section 11-280.1-43(3). *HAR 11-280.1-33(a)(4)*	☐ Yes	☑ No	☐ N/A
$400	Prior to the return to use of a repaired UST system, any repaired piping that routinely contains product passed a line tightness test in accordance with section 11-280.1-44(2). *HAR 11-280.1-33(a)(5)*	☐ Yes	☑ No	☐ N/A
$400	Prior to the return to use of a repaired UST system, repairs to secondary containment areas of tanks and piping used for interstitial monitoring, containment sumps used for interstitial monitoring of piping, and containment walls have the secondary containment tested for integrity using vacuum, pressure, or liquid methods in accordance with requirements developed by the manufacturer, a code of practice developed by a nationally recognized association or independent testing laboratory, or requirements established by the department; *HAR 11-280.1-33(a)(6)*	☐ Yes	☐ No	☑ N/A
$200	Within six months following the repair of any cathodically protected UST system, the cathodic protection system was tested in accordance with section 11-280.1-31(2) and (3) to ensure that it is operating properly; and *HAR 11-280.1-33(a)(7)*	☐ Yes	☐ No	☑ N/A
$200	Prior to the return to use of repaired spill or overfill prevention equipment, the repaired spill and/or overfill prevention equipment were tested or inspected, as appropriate, in accordance with section 11-280.1-35 to ensure it is operating properly. *HAR 11-280.1-33(a)(8)*	☐ Yes	☐ No	☑ N/A
$200	UST system owners and operators have maintained records, in accordance with section 11-280.1-34, of each repair until the UST system is permanently closed or undergoes a change-in-service pursuant to section 11-280.1-71. *HAR 11-280.1-33(b)*	☑ Yes	☐ No	☐ N/A

Comments:

Inspector's Name: S. BOBBY OJHA

02/28/22 - 03/04/22

Assisting Inspector, if any: RICK SAKOW

GENERAL COMMENTS

The EPA Inspection Team commenced an opening conference with Rear Admiral Tim Kott and approximately 35 other DoD personnel on February 28, 2022. A closing conference was conducted on March 4th.

At the time of EPA's 2022 inspection, Tanks 1 and 19 were out of service, and four additional tanks were undergoing the clean-inspect-repair process.

The Red Hill UST system consists of two rows of 10 tanks, each with a capacity to hold 12.5 million gallons of fuel. Navy Personnel explained that the upper portion of the tank domes are more susceptible to corrosion because they are closer to the top of the mountain ridge, and for that reason, the tanks are usually filled with approximately (b) (3) (A) gallons of fuel, which is below the upper dome. Each of the Red Hill tanks can be accessed through the Upper Tunnel and Lower Tunnel. The Upper Tunnel contains ventilation infrastructure, fire-fighting infrastructure and access manholes for the tanks. The Lower Tunnel contains fueling valves and three main pipelines for the three different fuel types.

REVIEW

Inspector:	S. Bobby Ojha	**Signature:**	SANDEEP OJHA Digitally signed by SANDEEP OJHA Date: 2022.08.17 13:09:57 -07'00'	**Title:**	UST Inspector	**Phone:**	415-972-3374
Assisting Inspector Review:	Rick Sakow	**Signature:**	RICHARD SAKOW Digitally signed by RICHARD SAKOW Date: 2022.08.17 13:39:30 -07'00'	**Title:**	UST Inspector	**Phone:**	415-972-3495
Supervisor:	Kaoru Morimoto	**Signature:**	KAORU MORIMOTO Digitally signed by KAORU MORIMOTO Date: 2022.08.17 13:14:55 -07'00'	**Title:**	UST Manager	**Phone:**	415-972-3306