-----Original Message-----
From: Whitacre, Jan M CIV NAVSUP FLC Pearl Harbor
Sent: Tuesday, October 14, 2014 2:49 PM
To: Reynolds.Rebekah@epa.gov; wade.h.hargrove@hawaii.gov
Cc: Hommon, Rebecca M CIV CNRH, N00L; Coker, David C CIV NAVFAC PAC, 09C; Daugherty, Steven A CIV NAVFAC Pacific, 09C; Yee, Corinne S CIV NAVFAC HAWAII; Vogel, Burr M CDR NAVFAC HI, OP; Poentis, Aaron Y CIV NAVFAC HI, EV; Shimabuku, June T. CIV NAVFAC HI, EV4; Kishaba, Raelynn I CIV NAVFAC HI, EV4; 'Chen, Leslie DLA' (leslie.chen@dla.mil); james.diliberti@dla.mil
Subject: Red Hill Document Production - EPA/DOH Request 1.b. / Navy Questions # 6 and 7 - Dates and Estimates of Historical Releases - Tanks 11-13

Rebekah/Wade -

The attached documents construction, repairs and historical releases for Red Hill Tanks # 11-13. This summary report is provided primarily in response to EPA/DOH Request 1.b. and Navy Questions 6 and 7 for information regarding dates and estimated volumes of historical releases.

I note here that estimates regarding the volume of releases are estimates only and were based on information available at the time of the event. Some, and perhaps all, estimates may be inflated due to losses within the system through leaky valves or within the tell-tale system.

Although the attached is provided pursuant to and in the course of negotiations, the sender poses no restrictions on further distribution.

R,
JMW

Jan Michael Whitacre
Counsel NAVSUP FLCPH
1942 Gaffney Street, Suite 100
JBPHH, HI 96860-4549
(808) 473-7560
Jan.M.Whitacre@navy.mil

Tank History for Tank 11, Red Hill

RED HILL TANK NO. 11
PRODUCT: DFM

Date	Remarks
11/28/51	Cleaned tank. Labor Cost: $1892.65. Material: $350.20
10/11/63	Calibrated gauge.
1/29/64	Tank cleaned by Pearl Harbor NSYD. Inspected by NSC. Tank in good condition. No evidence of liner plate corrosion in bottom section.
3/10/72	Emptied and cleaned for conversion.
6/29/72	Converted to Navy Distillate.
8/10/72	Completed installation and testing of motor valve control circuit.
5/2/73	Emptied tank.
6/7/73	Finished cleaning tank.

6/14/73 Removed and installed new 6" valve.

9/1/73 Emptied and cleaned for conversion. Telemeter system installed.

10/3/73 Installed 16" flanges and blanks.

10/3/73 Welded flanges to main line.

7/10/73 Tank completely emptied.

7/10/78 Completed fuel removal for turnover to contractor for MILCON P-060.

10/25/78 Contractor began work. Removed motorized valves and installed blanks.

6/1/80 Final inspection. Problems were noted with large sections of the coating of Tank 11. Coating appeared not to be in conformance with specifications. ROICC reported that dull areas of coating have been carefully inspected and met specification requirements. ROICC accepted Tank 11.

7/15/78 Took Mr. Garber, SUBASE Photo Lab, to document in pictures the condition of the lining in tank which was accepted as satisfactory by ROICC.

7/28/80 Contractor notified ROICC that tank is ready to be

returned to service. Began refilling tank for leak test.

8/8/80 Tank was returned from the contractor and filled to capacity with DFM for leak testing. Due to an observed leakage rate of 1,000 to 1,500 gallons per day, the tank level was immediately dropped in stages to attempt to determine the leak location. As of the end of August, it appears that the leak is between the current level of 51 feet and bottom of the tank. As soon as ullage is available, the tank will be completely drained. Tank is now leaking at a rate of 20 gallons per hour.

LEAK TEST DATA AFTER INITIAL REPAIR AND LINING
(Note that leak rate is based on data from telemetering.)

DATE	FILL LEVEL	LEAK RATE (GAL/DAY)
8/8-11/80	235.0	1497
8/12-13/80	214.0	2412
8/13-15/80	202.0	1614
8/16-18/80	182.0	1380
8/18-21/80	149.0	1070
8/23-25/80	100.0	785
8/26-9/8/80	51.0	487
9/8-11/80	44.2	377
9/12-15/80	25.0	165

9/18/80 Completed fuel removal for turnover to contractor for leak repair.
9/23/80 Contractor began work.
1/9/81 Contractor notified ROICC that tank is ready to be returned to service. Began refilling tank for leak test.

5/6-7/97 M. Wegmann (Asteroid Corp.) repair telemeter. Tape was wound around float guide wire.

11/24/97 Valve on sample line for 75' level leaking into sample trough. Line plugged to stop leak.

Tank History for Tank 12, Red Hill

10/22/51	Cleaned tank. Labor Cost: $1915.55. Material: $42.10
6/59	Repaired automatic gauge. Labor Cost: $50. Material: $10.60
10/11/63	Calibrated gauge
1/15/64	Tank cleaned by Pearl Harbor NSYD. Inspected by NSC. Condition of steel appeared very good. No evidence of corrosion on bottom plates or piping. Fuel Department Facilities Branch renewed 20 feet of 3 x 4 wooden elevator guide. Made welding repairs to damaged catwalk. Inspection of dome made from catwalk with spotlight. No evident break in liner plate. However, known leak exists in dome section. Finding and repair of this leak will be deferred for accomplishment under contract for tank rehabilitation.
10/27/67	Changed oil seals on valves.
4/28/70	Emptied and cleaned for conversion.
5/20/72	Telemeter system installed. Converted to DFM.
12/14-21/72	Hosed and cleaned tank (178 hours).
	12/26/72-2/6/73 Drilled and tapped 3/8" pipe connections on telltale pipe at bottom of tank to test collector ring. Connected 2" pipe air line in lower tunnel to tank. Tested collector ring for leaks at 2-1/2 lbs. air pressure. Tested tank for leak (343 man-hours).
3/73	Tank emptied. Suspected leak between 15'-0-0- and 20'-0-0. Filled water to 20'-0-0. No leak.
7/16/73	Drained water.
8/1/73	Removed all hoses and installed 1/4" plugs on collector rings at bottom of tank.

9/24/73 Removed and installed. new 6" gate valve on drain line.

10/3/73 Installed 16" flange and blank.

10/3/73 Cut 16" line and welded flange connector to main line. Filled Navy Distillate to 40'-0-0. Leaked .3 per day. Drained. Filled Navy Distillate to 20'-0-0. No leak.

7/8/74 Continued to fill tank--76'-479. Sounding okay.

2/27/80 Completed fuel removal for turnover to contractor for MILCON P-060. Contractor began work. Removed motorized valves and installed blanks.

1/15/81 The Deputy Director, Fuel Department; Engineering Technician, Facilities Division; ROICC Pearl and contractor representatives inspected tank. Tank was accepted for leak testing.

1/29/81 Contractor notified ROICC that tank was ready for return to service. Began refilling tank for leak test. Tank filled to 100 ft. level for observation.

2/3/81 Gauge loss shows leak rate at 100 ft. to be approximately 1440 gal/day. Dropped tank to 60 ft. level.

2/5/81 Leak rate continued. Dropped tank to 30 ft. level. Leak appeared to stop.

2/10/81 Completed fuel removal for turnover to contractor for leak repair. Contractor began work. Tank was refilled to 100' level and leaked at a rate of 1400 gallons per day.

2/27/81 Tank was returned to service for leak testing after rework and repairs were completed.

5/5/81 Tank was removed from service for the second time for leak repairs.

Date	Remarks

Unless otherwise noted, all work in the following entries was done by AMAN Environmental Construction, Inc. and their subcontractors under DFSC M&R Project PRL93-17 (M1-93), Contract N62755-94-D-2802 entitled Clean Underground Fuel Storage Tanks, Red Hill Fuel Storage Facility. The project was administered by PWC Contracts Dept.

6/12/95	J. Gammon (FISC SUPT) and C. Noyes (AMAN CQC) to tank bottom for inspection. R. Koyama (PWC CONREP) and W. Choy (PWC CME) pointed out a deep pit in upper section of "A" course bottom plate. Noyes, Koyama, and Choy left and Gammon continued inspection alone.
6/13/95	J. Gammon (FISC SUPT) and C. Noyes (AMAN CQC) to tank bottom for inspection.
9/8/98	Fuel Maint installs blind on tunnel side of 4" slop line valve.

Tank History for Tank 13, Red Hill

RED HILL TANK NO. 13
PRODUCT: DFM

DATE	REMARKS
12/3/51	Cleaned tank. Labor Cost: $1938.20. Material: $483.15
10/31/58	Repaired switch. Labor Cost: $36. Material: $6
10/11/63	Calibrated gauge.
4/64	Cleaned and inspected. Tank condition good.
10/27/67	Changed oil seals on valves.
11/27/72	Emptied and cleaned for renovation.
11/28/72	Hosed and cleaned tank in preparation for locating leak (164 hours).
12/11/72	Found leak in collector ring. Welded collector ring.
3/13/73	Installed 6" standard flanges on water line.
9/10/73	Telemeter system installed. Refilled with NSFO. Labor Cost: $80
1/2/76	Transfer to surface tank 47. Finished 1/12/76 swing shift.
1/14/76	Transfer bottom of tank into surge tank No. 1. Checking oil.
1/14/76	Emptied and cleaned for conversion. Converted to DFM.
1/26/76	Facilities Branch personnel started to clean and wash down

catwalks.

4/16/76 Buttoned up tank.

4/21/76 Received diesel oil from Tank 46.

5/6/76 Received diesel oil from Tank 10.

5/20/76 A leak in tank, which had been placed in diesel service after conversion from NSFO, will require a transfer of product to UG Tank No. 16, following completion of repairs to Tank 16 in June. Tank 13 will be placed out of service pending evaluation and repairs.

5/30/80 Completed fuel removal for turnover to contractor for MILCON P-060. Contractor began work.

6/15/80 Tank was removed from service and turned over to the contractor for initial repairs and lining.
7/7/81 Tank was returned to service for leak testing.
9/3/81 Tank was returned to service following rework of leak repairs. Tank was filled and leaks above 188 foot level.
1/8/82 Tank was removed from service for leak repair.
2/12/82 Tank was returned to service after leak repairs.

Date Remarks

Unless otherwise noted, all work in the following entries was done by AMAN Environmental Construction, Inc. and their subcontractors under DFSC M&R Project PRL93-17 (M1-93), Contract No. N62755-94-D-2802 entitled Clean Underground Fuel Storage Tanks, Red Hill Fuel Storage Facility. The project was administered by PWC Contracts Dept.

7/3/95 At 1515 J. Gammon (FISC SUPT) inspected tank bottom immediately after L. Woodman of CONAM MMP (AMAN sub for API-653 certified inspection) exited tank. Tank bottom

covered with sandblast grit and debris and considered too dirty to inspect. Took photos.

8/11/95 1. Contractor (AMAN) drilled and tapped the 3-inch dia. counterweight pipe with two 0.25-inch dia. holes located 13-inches and 52-inches above the tank bottom.

2. Approx. 3 gallons of black oil drained from bottom of pipe. Oil sample tested at FISC Fuel Lab and determined to be a mixture of NSFO and F-76. See attached Lab Report No. 3085 dated 8/14/95.

3. Used a band saw to cut and remove a wedge shaped piece of the pipe wall 14-inches long by 3-inches wide. Bottom of wedge 16-inches above tank bottom.

4. Removed counterweight and approx. 20-feet of damaged telemeter tape. Counterweight not damaged.

5. From 1600 to 1645 J. Gammon (FISC SUPT), B. Dmitrijev (FISC PM), and W. Sumner (AMAN SUPT) went to tank bottom to inspect inside bottom of counterweight pipe. Pipe <u>does not</u> have a false bottom. Pipe end is welded to doubler plate which is welded to tank bottom plate. No visible damage to inside of pipe or doubler plate at end of pipe. Took photographs.

6. Removed flexible coupling from counterweight pipe at catwalk level and installed temporary end cap for air pressure test of pipe from catwalk level to tank bottom.

7. Welded wedge shaped piece back into counterweight pipe.

8. Used drilled/tapped hole 1-foot from tank bottom to pressurize counterweight pipe with air to 22 psi. Soaped weld to check for leaks. Pressure held for 10 min. with no leaks per W. Sumner.

9. Seal welded 0.25-inch dia. threaded plugs into two drilled/tapped holes.

8/8/95 Installed 32-inch blind flange in tee between the 32-inch F-76 main line and the 32-inch lateral line to Tanks 13 and 14.

8/10/95 1. Removed 18-inch blind flange from tee between the 18-inch JP-5 main line and the 18-inch lateral line to Tanks 13 and 14.

2. Installed _-inch blind flange in tee between the 16-inch F-76 main line and the 18-inch lateral line to Tanks 13 and 14.

8/14/95 Newly sandblasted and coated area in center of tank bottom approx. 32-feet in dia. lightly sanded and recoated with a second fluoropolyurethane topcoat to cover scratches from sand and debris when sandblasting tarp was removed. NOTE - TOP COAT HAS MECHANICAL BOND VICE MECHANICAL/CHEMICAL BOND TO UNDERLYING COAT.

8/15/95 From 1035 to 1130 W. Choy (PWC CME), R. Koyama (PWC CONREP), C. Noyes (AMAN CQC), and J. Gammon (FISC SUPT) inspected recoated area of tank bottom. Found seven small spots requiring rework.

8/17/95 Gaskets replaced on two flexible couplings on counterweight pipe. Flexible couplings are Rockwell Model No. F411-350 made by Smith-Blair Inc. of Texarkana, AR, phone (800) 643-9708. Gaskets are Smith-Blair part no. 30778-069 and are made of BUNA-N (nitrile rubber). Gaskets were purchased from Pacific Equipment Co., Los Angeles, CA, phone (800) 458-4585.

8/18/95 1. Installed blind flange on top of counterweight pipe in Gauging Gallery and pressurized the entire pipe with air to 22 psi to check for leaks at two flexible couplings above the catwalk and two threaded plugs near the tank bottom. Pressure held for 10 min. with no leaks per W. Choy (PWC CME).

2. M. Wegmann (Asteroid Corp. - under contract to FISC) and R. Krouse (FISC MAINT) assisted AMAN personnel to reinstall the telemeter float, tape and counterweight.

3. From 1325 to 1410 J. Gammon (FISC SUPT), R. Koyama (PWC CONREP), and C. Noyes (AMAN CQC) inspected and accepted tank bottom. Took photos.

8/21/95 1. M. Wegmann (Asteroid Corp.) and R. Krouse (FISC MAINT) assisted AMAN personnel to remove, inspect, and reinstall high level alarm.

2. AMAN installed three missing brackets on counterweight pipe from catwalk level to top of tank.

1/30/96 1. Day Shift. Transferred JP-5 from UTF Tank 55 to Tank 13 raising the level from 176' to 202'.

2. Swing Shift. Leak of approx. six drops per minute noted at flange of 8-foot dia. manway.