Joint Task Force-Red Hill

Bi-Monthly Quality Validation Working Group Meeting



06 July 2023



BACKGROUND/DESCRIPTION

- On January 27, 2023, the Hawai'i Department of Health (DOH) conditionally approves the Independent Third-Party Quality Validation Plan, with the following conditions:
 - Para #1, Provide resumes of those working QV (31 Jan) OUTSTANDING
 - Para #2, Provide QV Plan Addendum detailing testing requirements that will follow repairs (28 Feb)
 - Para #3a, Provide DoH/EPA our first monthly QV report (23 Feb)
 - Para #3b, Provide list of dates of major repair/inspection events that DoH/EPA can attend (23 Feb)
 - Para #4, Provide final report (last repair + 30 days)



Quality Validation Report

NO.	Validation Complete	Date	Location
34	Contractor replaced welded reinforcement pads and (b) (3) (A) of (b) (3) (A) F-24 piping across (b) (3) (A) locations and (b) (3) (A) low point drains. Shop coating (two part epoxy with polyurethane top coat) of piping was performed prior to delivery, with touch-up coating applied as necessary to weld zones and areas of mechanical damage. Stainless steel restraint bolts installed on selected pipe supports, with Teflon wear pads between new saddles and pipe supports.	05 JUL 23	North Road
35	Contractor replaced welded reinforcement pads and (b) (3) (A) F-76 piping across locations and (b) (3) (A) low point drains. Shop coating of piping was performed prior to delivery, with touch-up coating applied as necessary to weld zones and areas of mechanical damage. Stainless steel restraint bolts installed on selected pipe supports, with Teflon wear pads between new saddles and pipe supports.	05 JUL 23	North Road



Rework - Quality Validation Report

NO.	Validation Complete	Date	Location



Relief - Quality Validation Report

ENSURING A FREE AND OPEN INDO-PACIFIC

NO.	Validation Complete	Date	Location

Seeking Repair Relief: #006, UGPH



Testing & Inspection Dates

NO.	Testing & Inspection Dates	Date	Location
1			
2			
3			
4			



Around the Horn

ENSURING A FREE AND OPEN INDO-PACIFIC

AGENCIES:

- NAVAL FACILITIES ENGINEERING SYS COMMAND-HAWAII (NAVFAC-HI)
- JOINT TASK FORCE-RED HILL (JTF-RH)
- ENVIRONMENTAL PROTECTION AGENCY (EPA)
- DEPARTMENT OF HEALTH (DOH)
- FLEET LOGISTIC CENTER-PEARL HARBOR (FLC-PH)
- DEFENSE LOGISTIC AGENCY (DLA)
- COMMANDER, NAVY REGION-HAWAII (CNR-HI)
- ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
- NAVY-OTHER

				QUALI	TY VALIDATION (QV) REPO	ORT			
]	Red Hill B	Bulk Fuel Storage Fac	ility Defue	el			
Vali	dation Firm	HDR Env	ironmental	, Operatio	ns and Construction,	Inc.		Repair No.	034	
	Address	9781 S. N	leridian Bl	vd., Suite	vd., Suite 400, Englewood, CO 80112 Repair ID (b) (4)AGP					
C	ontract No.	FA89031	5D0007, D	.O. FA890	03-19-F-0027			Report Date	5 JUL 202	23
Q	V Engineer	(b) (6)					2000		
					VALIDATION					
Son	urce	I	PDF Page N	lo.	Facility Geograph	ic Area		Location	Reference	
(b) (4)		393			Joint Base Pearl Ha	rbor	North Roa	ad		
Repair	Description	Repair pip	orrosion ar se sections		ts at pipe support con	tact.	Source Contract Reference			
Co	scription of ntractor QC nod(s) Used	inspection on piping	Methods outlined in detail in QCP. Pipe butt welds 100% inspection via Phase Array Ultrasonic Testing. Socket welds n piping 100% inspection by (b) (6)				Contractor QC Records Reviewed			Daily
Val	otion of QA lidation and bservations	JTF-RH s JTF-RH (QA and 3r	o. rd Party QV complete d repair & reviewed co		C docume	ntation.		
		Final accep	otance by go	overnment.	Date: 22 JUN 2023		I			
	Rework	Needed			Photo Record Attached	l		r Work Vali	dated as Co	mplete
0	Yes	•	No		See Page 2.		•	Yes	\circ	No
Contracto (b) (3) (A) ov with touch	Contractor replaced welded reinforcement pads and (b) (3) (A) F-24 piping across (b) (3) (A) ow point drains. Shop coating (two part epoxy with polyurethane top coat) of piping was performed prior to delivery, with touch-up coating applied as necessary to weld zones and areas of mechanical damage. Stainless steel restraint bolts installed on selected pipe supports, with Teflon wear pads between new saddles and pipe supports.									
					CERTIFICATION					
,		r work validate estantiated an		QV ENG	INEER SIGNATURE	(b) (6)			
report is true	*	olamaicu dii	G 1110		DATE	5 JUL 20	23			

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

Contractor installed new(b) (3) (A)piping to replace areas of corrosion; new protective coating system applied.

(b) (3) (A)

Pipe saddles welded to bottom of pipe with Teflon wear pad along North Road. New stainless steel restraint bolts installed.

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel

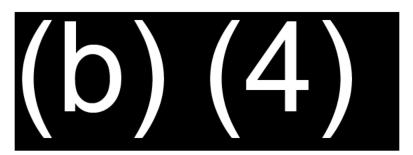
(b) (3) (A)

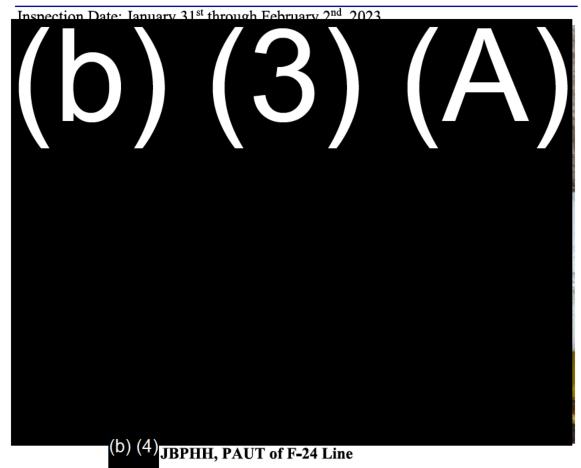
Contractor installed new low point drain assemblies (typica (b) (3) (A)

(b) (3) (A)

Contractor installed new (b) (3) (A) piping to replace areas of corrosion; new protective coating system applied.

(b) (4)



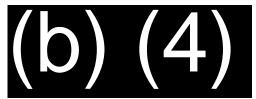


Accepted per ASME B31.3

(b) (4) conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination fo (b) (4) at JBPHH in Honolulu, HI on January 31st through February 2nd, 2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE

The welds were scanned with a 5MHz linear array probe using 32 active elements to produce a compound scan utilizing shear waves from 40° to 70° focused at the 1.5 x thickness. The probe indexing was set at the proper distance noted in the attached scan plan to achieve adequate coverage of the area of interest. The adjacent base material was scanned with 0° conventional UT. The client had the welds mechanically wire wheeled to ensure adequate coupling and aid the transmission of ultrasonic energy. The welds were accessible and scanned from both sides of weld center line.



Page 2 of 15

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) with side drilled holes. Steel (b) (3) (A) piping calibration standard (S/N: TNE-EII-007) with I.D./O.D. notches.

INSPECTION RESULTS

Specification: ASME Section V **Procedure:** NDT-005.6, Rev. A **Acceptance:** ASME B31.3

Description	Results
(b) (3) (A) F-24 line, final weld. 2/1/23	Accepted
F-24 line, final weld. 2/1/23	Accepted
F-24 line, final weld. 1/31/23	Accepted
F-24 line, final weld. 1/31/23	Rejected
F-24 line, final weld. 1/31/23	Accepted
F-24 line, final weld. 1/31/23	Accepted
F-24 line, final weld. 2/1/23	Accepted
F-24 line, final weld. 2/2/23	Accepted
. F-24 line, final weld. 2/1/23	Accepted

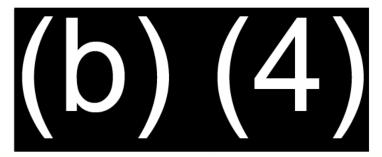
If you have any questions regarding this matter or require any additional information, please do not hesitate to contact (b) (6)

Respectfully submitted,



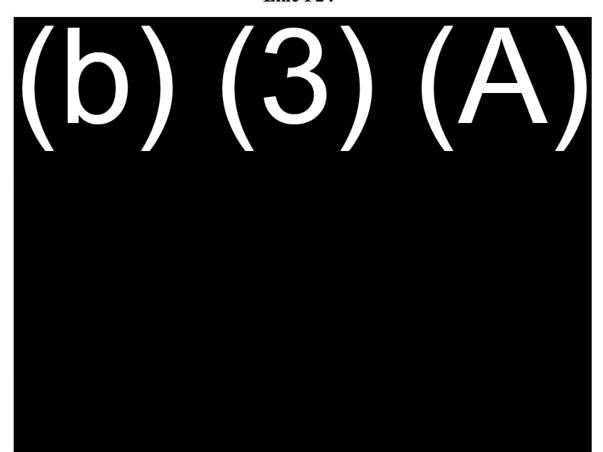
ACCP UT Level III API-QUTE PAUT Level II AWS CWI API-570

(b) (4)



Inspection Dates: Feb/16/2023 - Feb/18/2023

Phased Array Ultrasonic Testing of Line F24



(b) (4) @ JBPHH

(b) (6)

API-QUTE
PAUT Level II
AWS CWI

(b) (4)



SCOPE

(b) (4) conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at JBPHH in Honolulu, HI from Feb/16/2023 to Feb/18/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE

The welds were scanned with a 5MHz linear array probe using 32 active elements to produce a sectorial scan utilizing shear waves from 40° to 70° focused at the 1.5 x thickness. The probe indexing was set at the proper distance noted in the attached scan plan to achieve adequate coverage of the area of interest. The adjacent base material was scanned with 0° conventional UT. The client had the welds mechanically wire wheeled to ensure adequate coupling and aid the transmission of ultrasonic energy.

Limitations

All welds were accessible and scanned from both sides of weld centerline. Weld volume and HAZ coverage was 100%. Scans were recorded using an Olympus Versa Mouse encoder.

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

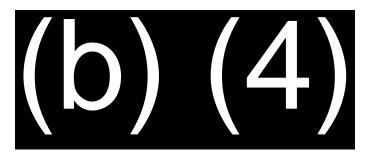
Steel NAVSHIPS calibration standard (S/N: 03-8269) with (b) (3) (A) piping calibration standard (S/N: TNE-EII-005) with I.D./O.D. notches

INSPECTION RESULTS

Specification: ASME Section V Procedure: NDT-005.6, Rev. A Acceptance: ASME B31.3

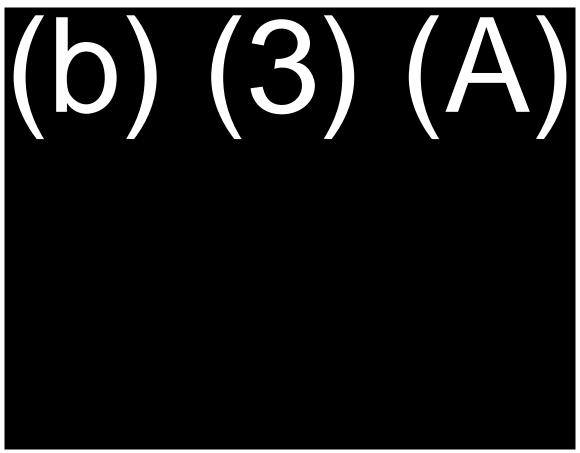
	Description	Results
(b) (3)	final weld. 2/16/23	Accepted
(D)(J)	final weld. 2/16/23	Accepted
, , , ,	final weld. 2/16/23	Accepted
	final weld. 2/16/23	Accepted
	final weld. 2/17/23	Rejected
	ng, weld repair. 2/18/23	Accepted
	final weld. 2/17/23	Accepted
	final weld. 2/16/23	Accepted
	final weld. 2/17/23	Accepted
	final weld. 2/17/23	Accepted
	final weld. 2/18/23	Accepted

(b) (4)



Inspection Dates: Feb/20/2023 – Feb/26/2023

Phased Array Ultrasonic Testing of Line F24



(b) (4) @ JBPHH

(b) (6)

ACCP UT Level III API-QUTE PAUT Level II AWS CWI API-570



Page 2 of 27

SCOPE

(b) (4) conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at JBPHH in Honolulu, HI from Feb/20/2023 to Feb/26/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE

The welds were scanned with a 5MHz linear array probe using 32 active elements to produce a sectorial scan utilizing shear waves from 40° to 70° focused at the 1.5 x thickness. The probe indexing was set at the proper distance noted in the attached scan plan to achieve adequate coverage of the area of interest. The adjacent base material was scanned with 0° conventional UT. The client had the welds mechanically wire wheeled to ensure adequate coupling and aid the transmission of ultrasonic energy.

Limitations

All welds were scanned from both sides of weld centerline when accessible. Welds with access limited to one side of weld centerline (such as pipe to fitting joints) were scanned from pipe side of weld centerline. Weld volume and HAZ coverage was 100%. Scans were recorded using an Olympus Versa Mouse encoder.

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) with [b] (A) piping calibration standard (S/N: TNE-EII-005) with I.D./O.D. notches



Page 3 of 27

INSPECTION RESULTS

Specification: ASME Section \boldsymbol{V}

Procedure: NDT-005.6, Rev. A

Acceptance : ASME B31.3

Description	Results
(b) (3) (A) inal weld. 2/20/23 inal weld. 2/20/23	Accepted
inal weld. 2/20/23	Accepted
inal weld. 2/20/23	Rejected
g, weld repair. 2/20/23	Accepted
inal weld. 2/21/23	Rejected
g, weld repair. 2/21/23	Rejected
g, weld repair. 2/22/23	Accepted
inal weld. 2/22/23	Accepted
inal weld. 2/23/23	Accepted
inal weld. 2/23/23	Accepted
inal weld. 2/24/23	Accepted
inal weld. 2/25/23	Accepted
final weld. 2/25/23	Accepted
final weld. 2/25/23	Accepted
final weld. 2/26/23	Accepted
inal weld. 2/26/23	Accepted

3

	MAGNETIC PART	MAGNETIC PARTICLE EXAMINATION RECORD
	(b) (4)	Location: JBPHH Date: 02/19/2023
	P.O. No.:	
	(b) (4) Procedure: NDT 003.2 Rev D	Code: ASME B31.3
MATERIAL	MAGNETIZING TECHNIQUE	JE MAGNETIZING EQUIPMENT
Type: C/S	Yoke: 🛛 AC 🔲 DC Spacing	Mfg.: Contour probe Serial #: 4778
Thickness: Variable	Amps Coil Dia.	Calibration Date 02/11/2023
Geometry	Longitudinal Turns Amp Turns	Field Verification By: Pie Gauge
Pipe Plate Rod	Direct	
Other:	Circular	/a
Item: See below	Amps	MODEL: n/a Serial #: n/a
Stage of Mfg.: See below	Inspection Medium X Dry Powder	Color: #8a (Red)
	☐ Wet Visible	Type Batch No.: 14B108
Surface Condition: Wire wheel prepped	Illumination X White Ultraviolet	
Item(s)	Accept Reject	Sketch/Notes
(と)		
		(b) (c)
Dowform of Dr.		
Performed By: (b) (6) Level: II	Date 02/19/2023 Reviewed Bv:	Date:

		P.	C	
AT TATIONALA	(4)Procedure: NDT 003.2 Rev F	P.O. No.: NA	Client: (b) (4)	MAGNETIC PART
A CONTRACTOR OF THE CONTRACTOR	Code: ASME B31.3	Job No. 23-049	Location: JBPHH PIGMF-24 Piping North Road	TICLE EXAMINATION RECORD
		75	Date: 3/1/2023	D

	(9) (4)Procedure: NDT 003.2 Rev F Code: AS	ASME B31.3
	Report No.: RRH030123A	
MATERIAL	MAGNETIZING TECHNIQUE	MAGNETIZING EQUIPMENT
Type: C/S	Prod: AC DC Spacing	Mfg.: Parker Probe Serial #: 23269
Thickness: STD	Amps fixed Coil Dia.	te 05/2023
Geometry N Pipe	Longitudinal Turns n/a Amp Turns	Field Verification By: Pie Gauge
Other:	Circular n/a	UV Meter: n/a
Item(b)(3)(A) sleeve	Central Conductor <u>n/a</u> Amps <u>n/a</u>	MODEL: n/a Serial #: n/a
Stage of Mfg.: New Welds	Inspection Medium Dry Powder Cole	Color: White Contrast
		ype Batch No.: 18M03K-00736
Surface Condition: As Welded/Cleaned	Illumination White Ultraviolet	e e
Item(s) Accept Reject Item(s)	(s) Accept Reject	Sketch/Notes
(b) (3)		(b) (6), (b) (4)
	**no releva inspection.	**no relevant indications were noted at the time of inspection.
Performed By: (b) (6)	Date 03/01/2023 Reviewed By:	Date: Page 1 of 1

Performed By: (5) (6)		Item(s) Accept Reject Item(s)	Surface Condition: As Welded/Cleaned	Stage of Mfg.: New Welds	Item: Support Bracket	Geometry ☐ Pipe ☐ Plate ☐ Rod ☐ Other:		Type: C/S Pr		(b)		
Date 03/01/2023 Reviewed By:	**no inspe	Accept Reject	Illumination White Ultraviolet		Central Conductor <u>n/a</u> Amps <u>n/a</u>	Longitudinal Lurns <u>n/a</u> Amp Lurns Direct <u>n.a</u> Circular <u>n/a</u>	fixed Coi	Prod: AC DC Spacing AC	Report No.: RRH030123B	O No.: NA 4 rocedure: NDT 003.2 Rev F	Client: (b) (4)	MAGNETIC PARTIC
Date:	**no relevant indications were noted at the time of inspection.	Sketch/Notes Welders: (b) (4), (b) (6)	1 ypc Dawn No., 178.072	Color: Gray Type Ratch No : 10K002		Field Verification By: Pie Gauge UV Meter: n/a	Calibration Due Date 05/2023	Mfg.: Parker Probe Serial #: 23		Job No. 23-049 Code: ASME B31.3	Location: JBPHH F-24 Piping North Road	CLE EXAMINATION RECORD
Page 1 of 1	at the time of				Serial #: n/a	uge		Serial #: 23269			Date: 3/1/2023	

Performed By:
(b) (6) ☐ Pipe☐ Other: Surface Condition: Wire wheel prepped Stage of Mfg.: See below... Item: See below... Thickness: Variable Type: C/S Plate MATERIAL Geometry Yoke: Date 02/19/2023 (b) (4) (b) (4) Procedure: NDT 003.2 Rev D P.O. No.: Inspection Medium Illumination Longitudinal Turns Central Conductor MAGNETHZING TECHNIQUE \times AC Circular Amps Direct White MAGNETIC PARTICLE EXAMINATION RECORD Reviewed By: DC Amp Turns Accept Reject Ultraviolet Wet Visible Coil Dia. Spacing Code: ASME B31.3 Location: JBPHH Job No. 23-049 Color: #8a (Red) Type Batch No.: 14B108 Mfg.: Contour probe Field Verification By: Pie Gauge MODEL: n/a Calibration Date 02/11/2023 UV Meter: n/a MAGNIFICING EQUIPMENT Sketch/Notes Date: 02/19/2023 Serial #: Serial #: 4778 n/a

Date: Page 1 of 2	Reviewed By:		Date 03/14/2023		(b) (b)	Performed By:
		i.				
		8		26		9
						X
		J1				
See Typical Pictures Below.		<i>S</i>				
inspection.						
relevant indications were found during this	No rel	ř.		**		
and the final weld for the pipe support pads.	pipe an					
MT Inspection was performed on the root pass of the	MT Inspe					
	100					(ロ) (O) (A
Sketch/Notes	- 2	Accept Neject	Trem(s)	Welcer	Accept	
	Ultraviolet		Illumination White		Clean	Surface Condition: Buffed Clean
Type Batch No.: <u>22A006</u>	Wet Visible Ty					
Color: RED	72	Dry Powder	Inspection Medium			Stage of Mfg.: New
MODEL: n/a Serial #: n/a		n/a n/a	Central ConductorAmps	4)	h Road (F-2	Item: New Piping on North Road (F-24)
UV Meter: n/a		n/a	Circular _		334	Other:
Field Verification By: Pie Gauge	urns	<u>a</u> Amp Turns	Longitudinal Turns n/a Direct n.a		_	Geometry: ⊠ Pipe ⊠ Plate □Rod
Date 01/01/2023	Dia.	ed Coil	Amps fixed			Thickness: STD
Mfg.: Parker Serial #: 23962	Spacing	☐ DC	Prod: X AC			Type: C/S
MAGNETIZING EQUIPMENT	HNIQUE	ZING TEC	MAGNETIZING TECHNIQUE			
		23	Report No.: KS01302023			
ASME B31.3	Code: A	003.2 revD	(b) (4) Procedure: NDT 003.2 revD			
	Job No. 23-049		9.O. No.: NA			
Location: JBPHH Date: 03-10-2023	Location		Dient: (b) (4)			
				<u> </u>		
EXAMINATION RECORD	MAGNETIC PARTICLE E	AGNETIC	M	1		

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				QUALI	TY VALIDATION (QV) REPO	ORT			
]	Red Hill B	Bulk Fuel Storage Fac	ility Defue	el			
Vali	dation Firm	HDR Env	ironmental	, Operatio	ns and Construction,	Inc.		Repair No.	035	
	Address	9781 S. N	leridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	(b) (4) _{AGF}	P.02
C	Contract No.	FA89031	5D0007, D	.O. FA890)3-19-F-0027			Report Date	5 JUL 202	23
Q	V Engineer	(b) (6)					Bute		
		`	,		VALIDATION					
Son	urce	F	DF Page N	lo.	Facility Geograph	ic Area		Location	Reference	
(b) (4)		393			Joint Base Pearl Ha		North Roa	ad		
Repair	Description	Repair pip			ts at pipe support con	tact.	Sour	ce Contract Reference		
Co	escription of ntractor QC hod(s) Used	inspection on piping		e Array Ul	QCP. Pipe butt welds trasonic Testing. Soci (b) (6)			ntractor QC s Reviewed	QCP and Reports.	Daily
Val	ption of QA lidation and observations	JTF-RH s JTF-RH (QA and 3r	e. d Party QV completed d repair & reviewed co		C docume	ntation.		
		Final accep	otance by go	overnment.	Date: 22 JUN 2023		.			
	Rework	Needed			Photo Record Attached	<u>l</u>	Repair	Work Vali	dated as Co	mplete
\circ	Yes	•	No		See Page 2.		•	Yes	\circ	No
(b) (3) (A necessar	or replaced ow point y to weld z	drains. Shones and a	op coating treas of me	of piping echanical	and (b) (3) (A) was performed prior to damage. Stainless sta lles and pipe supports	o aelivery, eel restrain	with touch	-up coating		s
					CERTIFICATION	(h)	(6)			
,		work validate		QV ENG	SINEER SIGNATURE	(b)	(6)			
report is true					DATE	5 JUL 20	23			

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

Pipe saddles welded to bottom of pipe with Teflon wear pad along (b) (3) (A) New stainless steel restraint bolts installed.

(b) (3) (A)

Contractor installed new (b) (3) (A) piping to replace areas of corrosion; new protective coating system applied.

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel

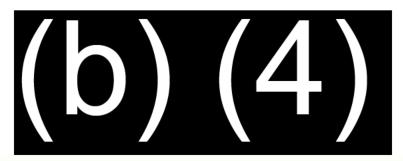
(b) (3) (A)

Contractor installed new low point drain assemblies (typical o

(b) (3) (A)

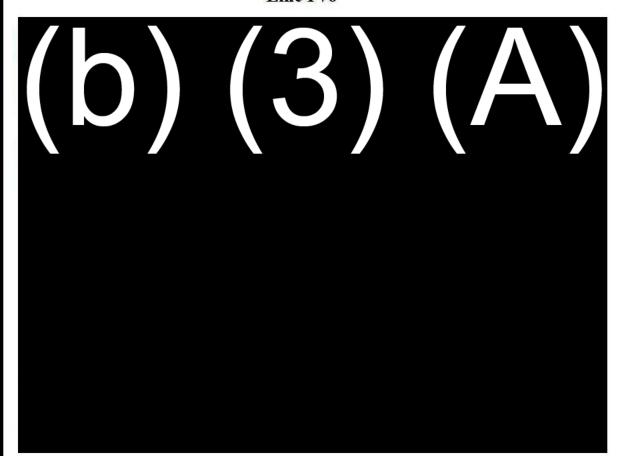
Contractor installed new (b) (3) (A) piping to replace areas of corrosion; new protective coating system applied.

(b) (4)



Inspection Date: Feb/12/2023

Phased Array Ultrasonic Testing of Line F76



(b) (4)

@ JBPHH

(b) (6)

ACCP UT Level III API-QUTE PAUT Level II AWS CWI API-570



Page 2 of 8

SCOPE

(b) (4) conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at JBPHH in Honolulu, HI on Feb/12/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE

The welds were scanned with a 5MHz linear array probe using 32 active elements to produce a sectorial scan utilizing shear waves from 40° to 70° focused at the 1.5 x thickness. The probe indexing was set at the proper distance noted in the attached scan plan to achieve adequate coverage of the area of interest. The adjacent base material was scanned with 0° conventional UT. The client had the welds mechanically wire wheeled to ensure adequate coupling and aid the transmission of ultrasonic energy.

Limitations

All welds were accessible and scanned from both sides of weld centerline. Weld volume and HAZ coverage was 100%. Scans were recorded using an Olympus Versa Mouse encoder.

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) with side drilled holes. Steel (b) (3) (A) piping calibration standard (S/N: TNE-EII-005) with I.D./O.D. notches

INSPECTION RESULTS

Specification: ASME Section V Procedure: NDT-005.6, Rev. A Acceptance: ASME B31.3

	D escription	Results	
(b) (3) (A)	piping, final weld. 2/12/23	Accepted	

	Job No. 23-049	(b) (4) Location: JBPHH	MAGNETIC PARTICLE EXAMINATION
A CIATI TO 10 A		Date: 02/19/2023	MINATION RECORD

	(\mathfrak{G}) (4)	Location: JBPHH Date: 02/19/2023
	(o) (4) Procedure: NDT 003.2 Rev D	Code: ASME B31.3
MATERIAL	MACCURE SUITE THE THE THE THE THE THE THE THE THE T	ENEMETICS ONICE SANDAM
Type: C/S	Yoke: XAC DC Spacing	Mfg
Thickness: Variable	Amps Coi	1/2023
Geomet	Longitudinal Turns Amp Turns	Field Verification By: Pie Gauge
☐ Other: ☐ Plate ☐ Rod	Direct Circular	UV Meter: n/a
Item: See below	Central Conductor	MODEL: n/a Serial #: n/a
Stage of Mfg.: See below	Inspection Medium	Color: #8a (Red)
	☐ Wet Visible	Type Batch No.: <u>14B108</u>
Surface Condition: Wire wheel prepped	Illumination X White Ultraviolet	2
Item(s)	Accept Reject	ct Sketch/Notes
(5) (3)		
(D)		
Performed B	Date 02/19/2023 Reviewed By:	Date:

PCP-04.1 Rev. B (06/04/03)

(b) (4)



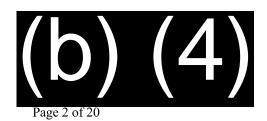
(b) (3) (A)

Phased Array Ultrasonic Testing of Line F76

(b) (4) @ JBPHH

(b) (6)

ACCP UT Level III API-QUTE PAUT Level II AWS CWI API-570



conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at JBPHH in Honolulu, HI from Mar/20/2023 to Mar/29/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE



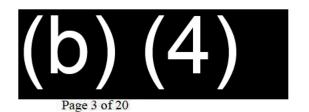
Limitations

All welds were scanned from both sides of weld centerline when accessible. Welds with access limited to one side of weld centerline (such as pipe to fitting joints) were scanned from pipe side of weld centerline. Weld volume and HAZ coverage was 100%. Scans were recorded using an Olympus Versa Mouse encoder.

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) witl (b) (3) (A) piping calibration standard (S/N: TNE-EII-005) with I.D./O.D. notches



INSPECTION RESULTS

Specification: ASME Section V

Procedure: NDT-005.6, Rev. A

Acceptance : ASME B31.3

b (O) (A) ption	Results
b) (3) (A) ig. final weld. 3/29/23 ig. final weld. 3/29/23	Accepted
lg, final weld. 3/29/23	Accepted
ng, final weld. 3/29/23	Accepted
ig, final weld. 3/29/23	Accepted
ng, final weld. 3/13/23	Accepted
ng, final weld. 3/16/23	Rejected
ping, final weld. 3/16/23	Rejected
ping, final weld. 3/17/23	Rejected
ping, final weld. 3/17/23	Accepted
ig, final weld. 3/16/23	Accepted
ng, final weld. 3/28/23	Accepted
ng, final weld. 3/28/23	Accepted

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Performed By (A) (A)	(b) (3) (A)	Surface Condition: Wire wheel prepped Illumination	Stage of Mfg.: See below Inspection Medium	r: Central C	Thickness: Variable Geometry Longitudinal Turns Direct	[ATERIAL Yoke:	(b) (4) roced	P.O. No.:	
0023 Reviewed By:	Accept. Reject		□ Dry Powder	Circular onductor Amps	Amps Coil Dia al Turns Amp Turns	TIZING I	4 Procedure: NDT 003.2 Rev D Code:	Job No	MAGNETIC PARTICLE I
Date:	(b) (6)	Type Batch No.: 14B108	Color; #8a (Red)	UV Meter: n/a MODEL: n/a Serial #: n/a	Field Verification By: Pie Gauge	MAGNETIZING EQUIPMENT Mfg.: Contour probe Serial #: 4778	Code: ASME B31.3	Location: JBPHH Date: Apr/01/2023 Job No. 23-049	E EXAMINATION RECORD

Performed By (b) (6) Level: II	(b) (3) (A)	Surface Condition: Wire wheel prepped	Stage of Mfg.: See below		ickness: Var	Type: C/S		(D) (4)
Date Apr/14/2023 Reviewed By:	Accept Reject X	☐ Wet Visible Illumination ⊠ White ☐ Ultraviolet	Inspection Medium Dry Powder	Direct Circular Central Conductor Amps	Amps Coil Dia. Longitudinal Turns Amp Turns	Yoke: AC DC Spacin 60	(b) (4) rocedure: NDT 003.2 Rev D	
Date:	Sketch/Notes (D) (G)	Type Batch No.: <u>14B108</u>	Color: #8a (Red)	UV Meter: n/a MODEL: n/a Serial #: n/a	Calibration Date Apr/10/2023 Field Verification By: Pie Gauge	(b) (3) (A) Mfg.: Contour probe Serial #: 4778	Job No. 23-049 Code: ASME B31.3	

		9/23	(b) (3) (A
ct Sketch/Notes	Accept Reject		Trem(s)
Type Batch No.: 14B108		Illumination X	Surface Condition: Wire wheel prepped
Color: #8a (Red)		Inspection Medium	Stage of Mfg.: See below
UV Meter: n/a MODEL: n/a Serial #:	s	Central Conductor Amps	Item: See below
Field Verification By: Pie Gauge	s Amp Turns	Longitudinal Turns Direct	Geometry Note: Spipe
	Coi	Amps	Thickness: Variable
	AC DC Spacing (0) (3) (4)	Yoke: X AC	Type: C/S
MACUETIZING FOITIDA	TIZING TECHNION	MACNE	MATERIAL
Code: ASME B31.3	DT 003.2 Rev D	(b) (4) rocedure: NDT 003.2 Rev D	
		P.O. No.:	
Location: JBPHH Date: Apr/19/2023		(D) (4)	

		3	MAGNETIC PART	MAGNETIC PARTICLE EXAMINATION RECORD
		<u> </u>		
			Client: (b) (4)	Location: JBPHH Date: 03-10-2023
			P.O. No.: NA	
		ľ	(b) (4) Procedure: NDT 003.2 revD	Code: ASME B31.3
			Report No.: KS01302023	
			MAGNETIZING TECHNIQ	MAGNETIZING EQUIPMENT
Type: C/S			Prod: AC DC Spacing	Mfg.
Thickness: STD			ed Coil	Calibration Date 01/01/2023
Geometry: ⊠ Pipe ⊠ Plate □Rod			Longitudinal Turns <u>n/a</u> Amp Turns <u></u>	Field Verification By: Pie Gauge
Other:			Circular n/a	UV Meter: n/a
Item: New Piping on North Road (F-24)	Road (F-2	4)	Central Conductor <u>n/a</u> Amps n/a	MODEL: n/a Serial #: n/a
Stage of Mfg.: New			Inspection Medium Dry Powder	Color: RED
			☐ Wet Visible	Type Batch No.: <u>22A006</u>
Surface Condition: Buffed Clean	Clean		Illumination White Ultraviolet	let
Item(s)	Accept	Reject	Item(s) Accept Reject	Sketch/Notes
b) (3) (A)				
	\boxtimes			
				MT Inspection was performed on the root pass of the
	\boxtimes			pipe and the final weld for the pipe support pads.
				No relevant indications were found during this
				inspection.
				See Typical Pictures Below.
Performed By:		<i>"</i>	Date 03/14/2023 Reviewed By:	ved By: Date: Page 1 of 2

PCP-04.1 Rev. B (06/04/03)

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