Markings removed

Joint Task Force-Red Hill

Bi-Monthly Quality Validation Working Group Meeting

24 Aug 2023 (TBD)

This brief is classified:

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As of 22 0900W AUG 23

BACKGROUND/DESCRIPTION

ENSURING A FREE AND OPEN INDO-PACIFIC

- 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)

RFI from DOH

ENSURING A FREE AND OPEN INDO-PACIFIC

- Status of Incremental Reports
  - INC-025: FOR line painting - non-repair, determination by Closure – 21 Aug
    - Included
  - INC-027: AFFF sump testing – 21 Aug
    - Included
  - INC-029: (b) (3) (A) – 10 Oct
    - In-progress, will pause for repacking blackout dates
  - INC-031: (b) (3) (A) – 22 Aug
    - Included
  - INC-044: (b) (3) (A) cross over vent – 21 Aug
    - Included

QV Accounting

ENSURING A FREE AND OPEN INDO-PACIFIC

- QV Complete = Sent to DOH/EPA.
  - "253" = 253/253 repairs
  - "INC" = 43/44; 4 submitted today, 1 remain.
- QV Conditionally Approved
  - DOH = 253/253, 39/43 Incremental
  - EPA = 253/253, 39/43 Incremental

Markings removed

Quality Validation Report

ENSURING A FREE AND OPEN INDO-PACIFIC

NO.	Validation Complete	Date	Location
INC -025	At the request of NAVSUP FLC, (b) (4) was engaged to evaluate the need for completing maintenance coating of the FOR line. Considering the installation of the (b) (3) (A) and the addition of a jumper connection (b) (3) (A), the FOR line (b) (3) (A) will (b) (3) (A) (b) (3) (A) .(b) (4) (b) (5), (b) (3) (A) Any unexpected weeps can be contained effectively by the existing Spill Mitigation measures.	21 Aug 23	(b) (3) (A)
INC -027	At each sump station, contractor removed manifold connection from each AFFF sump pump and installed an adapter to recirculate pump discharge into the sump. Pumps were run for two minutes to ensure operation; observations were recorded. Recirculated liquid was drummed and transferred to other sump locations to use as test medium. (b) (3) (A) repairs were not performed as operations will not use more than (b) (3) (B) pumps per location. Liquid was transferred into isolated segments of the retention line to ensure line remains leak-free at the recently sealed joints. Liquids were recovered from the retention line from the low point drain (b) (3) (A) Recovered test liquids were drummed, removed from the tunnel and sampled for off-site disposal.	21 Aug 23	Tank Gallery

Markings removed

Quality Validation Report

ENSURING A FREE AND OPEN INDO-PACIFIC

NO.	Validation Complete	Date	Location
INC -031	(b) (3) (A) (refer to page 2 photos), Contractor removed the existing (b) (3) (A) threaded piping at the union within the sump, installed an elbow and (b) (3) piping to allow the (b) (3) (A) Threaded piping assembly pneumatically tested to verify no leaks at joints. At Main Sump (refer to page 3 photos), Contractor occupied an existing nozzle (b) (3) (A) installing double block and bleed valves at the points of connection. A bracket was anchored to the Main Sump curb to provide support to the (b) (3) (A) piping vertical, with the horizontal being supported by an existing bracket with isolator pad. Body bleed piping on DBB valves were capped with threaded plugs. Applicable weld map, NDE, hydrostatic/pneumatic testing results attached.	22 Aug 23	(b) (3) (A) Sump 2) Main Sump
INC -044	(b) (3) (A) A Visi-Flow indicator was installed to allow operator to visually confirm packing of the line. Crossover piping was shop fabricated, welds were radiographically tested and assemblies hydrotested prior to installation. Applicable weld map, NDE and hydrostatic testing results attached.	21 Aug 23	(b) (3) (A)

QUALITY VALIDATION (QV) REPORT

Red Hill Bulk Fuel Storage Facility Defuel

Validation Firm	HDR Environmental, Operations and Construction, Inc.	Repair No.	INC-025
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112	Repair ID	(b) (3) (A)
Contract No.	FA890315D0007, D.O. FA8903-19-F-0027	Report Date	21 AUG 2023
QV Engineer	(b) (6)		

VALIDATION

Source	PDF Page No.	Facility Geographic Area	Location Reference
(b) (4)	N/A	(b) (3) (A)	

Repair Description	FOR line shows minor pitting, corrosion, and bare piping. Need to ensure proper cleaning and re-coating on all bare, rusting, corroding or pitting piping.	Source Contract Reference	N/A
Description of Contractor QC Method(s) Used	N/A	Contractor QC Records Reviewed	N/A
Description of QA Validation and Observations	N/A - No repair. What-If Analysis and (b) (4) Analysis. For the purposes of repacking and defueling (b) (4), (b) (5) Final acceptance by government. Date: 14 AUG 2023		

Rework Needed				Photo Record Attached	Repair Work Validated as Complete			
○	Yes	◉	No	N/A	◉	Yes	○	No

Comments

At the request of NAVSUP FLC, (b) (4) was engaged to evaluate the need for completing maintenance coating of the FOR line. (b) (3) (A)

(b) (3) (A)

(b) (3) (A) (b) (4) (b) (3) (A), (b) (5)

(b) (3) (A), (b) (5)

CERTIFICATION

I hereby certify that repair work validated in this report was personally substantiated and this report is true.	QV ENGINEER SIGNATURE	(b) (6)
	DATE	21 AUG 2023

(b) (4)

TO: (b) (6)

DATE: August 14, 2023

BY: (b) (6)

RE: Risk Assessment for Incremental Recommendation #25 - (b) (3) (A), (b) (5)

(b) (3) (A), (b) (5)

(b) (3) (A)

(b) (3) (A)

(b) (5)

(b) (3) (A), (b) (5)

(b) (6)

QUALITY VALIDATION (QV) REPORT

Red Hill Bulk Fuel Storage Facility Defuel

Validation Firm	HDR Environmental, Operations and Construction, Inc.	Repair No.	INC-027
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112	Repair ID	AFFF.Pumps
Contract No.	FA890315D0007, D.O. FA8903-19-F-0027	Report Date	21 AUG 2023
QV Engineer	(b) (6)		

VALIDATION

Source	PDF Page No.	Facility Geographic Area	Location Reference
NAVFAC	N/A	Tank Gallery	Tank Gallery

Repair Description	Check proper operation of AFFF sump pumps	Source Contract Reference	N6247823P2503
Description of Contractor QC Method(s) Used	Test plan/procedure.	Contractor QC Records Reviewed	Daily Reports.
Description of QA Validation and Observations	Government representatives witnessed operational testing. JTF-RH secondary QA and 3rd Party QV completed. JTF-RH QV reviewed contractor QC documentation. Final acceptance by government. Date: 17 AUG 2023		

Rework Needed				Photo Record Attached	Repair Work Validated as Complete			
○	Yes	◉	No	See Page 2.	◉	Yes	○	No

Comments

At each sump station, contractor removed manifold connection from each AFFF sump pump and installed an adapter to recirculate pump discharge into the sump. Pumps were run for two minutes to ensure operation; observations were recorded. Recirculated liquid was drummed and transfered to other sump locations to use as test medium. (b) (3) (A)

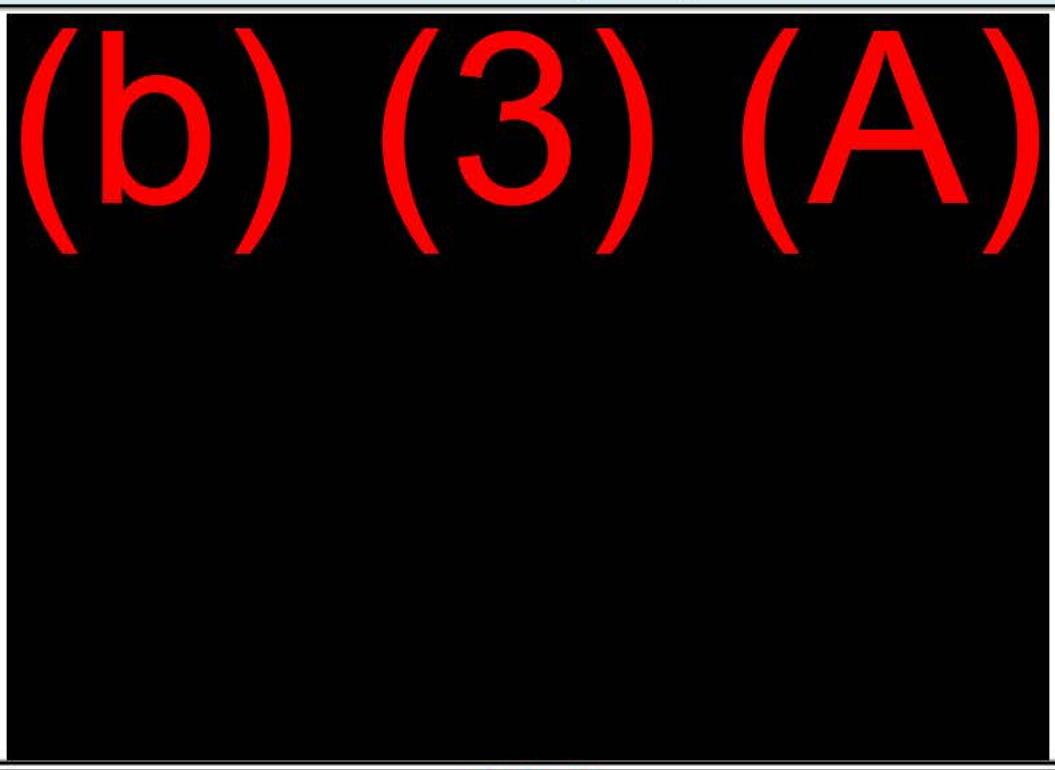
(b) (3) (A) liquid was transferred into isolated segments of the retention line to ensure line remains leak-free at the recently sealed joints. Liquids were recovered from the retention line from the low point drain next to the Main Sump. Recovered test liquids were drummed, removed from the tunnel and sampled for off-site disposal.

CERTIFICATION

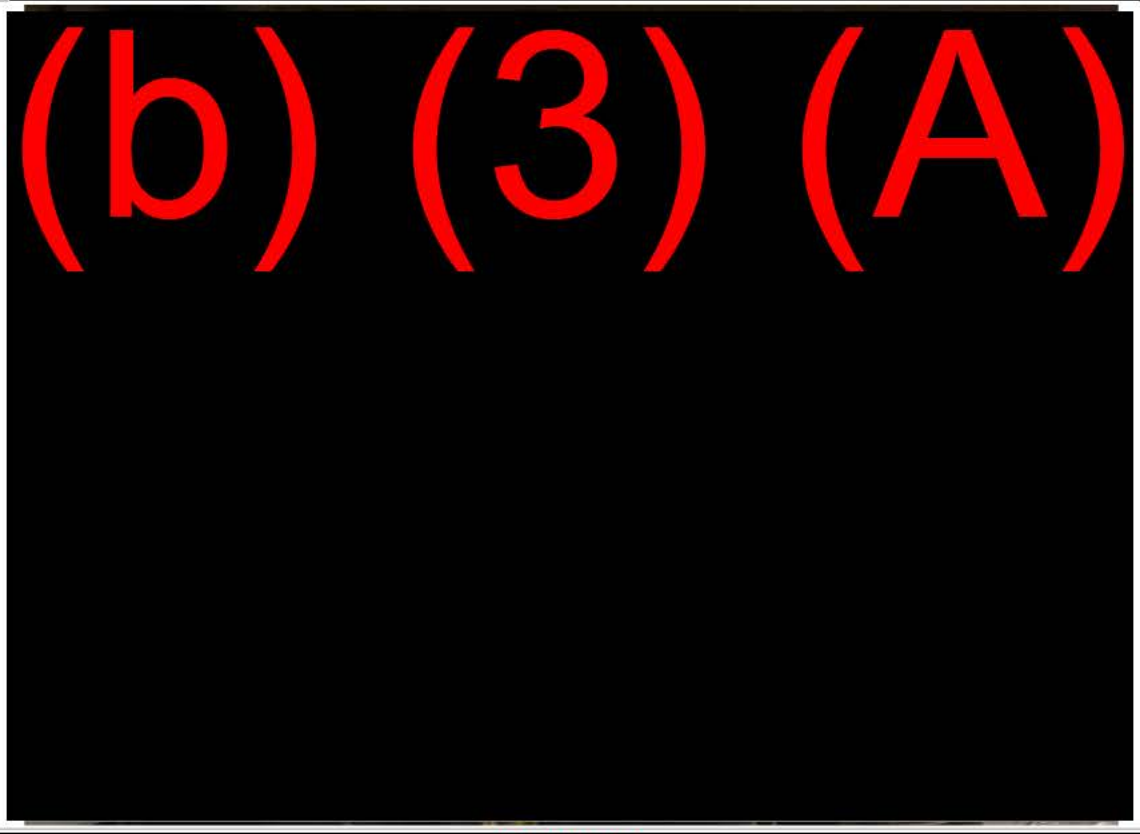
I hereby certify that repair work validated in this report was personally substantiated and this report is true.	QV ENGINEER SIGNATURE	(b) (6)
	DATE	21 AUG 2023

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)



(b) (3) (A)

Sump Pump Testing Check List

Date:	Aug 11, 2023	(b) (3) (A)		
Zone:	(b) (3) (A)			
Tme Start:	0800			
Time End:	0835			
Result:	(b) (3) (A)			
	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
Notes:	fail	Pass	Pass	(b) (3) (A) were repaired on Aug 10 2023. (b) (3) (A) START (b) (3) (A) @0829 TRIPPED Again START (b) (3) (A) 0880 TRIPPED Again Fail
QC Signature:	(b) (6)			
QA Signature:				

Sump Pump Testing Check List

Date:	Aug 17 2023	[redacted]		
Zone:	[redacted]			
Tme Start:	0815			
Time End:	0925 Ends test drain Pump at 0930.			
Result:	[redacted]			
	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
Notes:	2 min prime 1 min Run good.	2 min prime 1 min Run good.	2 min prime 1 min Run good.	3 min Prime 1 min Run good
QC Signature:	[redacted]			
QA Signature:				

Sump Pump Testing Check List

Date:	8/15/23	(b) (3) (A)
Zone:	(b) (3) (A)	
Tme Start:	11:00	
Time End:	12 Noon	
Result:	(b) (3) (A)	

	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
Notes:	2 min Prime 1 min Flush	2 min Prime 1 min Flush	2 min Prime 1 min Flush	(b) (3) (A) is good but the discharge gasket failed Turned off
QC Signature:	(b) (6)			
QA Signature:				

Sump Pump Testing Check List

Date:	15 AUG 23			(b) (3) (A)
Zone:	(b) (3) (A)			
Tme Start:	0922			
Time End:	0950			
Result:	(b) (3) (A)			
	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
Notes:	1 min run 2 min prime	1 min run 2 min prime	1 min run 3 min prime -longer prime time due to decreasing water level	1 min run 4 min prime
QC Signature:	(b) (6)			
QA Signature:				

Sump Pump Testing Check List

Date:	Aug 14. 2023			(b) (3) (A)
Zone:	(b) (3) (A)			
Tme Start:	10:20			
Time End:	11:20 - Just water pump.			
Result:	(b) (3) (A)			
	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
Notes:	* Started pumping clean water into pump at 10:20 finish 10:40 with 5 barrels - (b) (3) (A)			
	(b) (3) (A)			Start pump @ 10:30
	@ 11:13	@ 11:06	@ 11:00	1 Min Run
	1 Min Run	1 Min Run	1 Min Run	good
	good	good	good	
	11:25 time to pump used water into barrels for transfer			
	2:20 Per barrel to fill			
QC Signature:	(b) (6)			
QA Signature:				

AFFF Retention Line Testing Check List

Date:	

[redacted] (b) (3) (A)

Results		
	[redacted] (b) (3) (A)	
1 Hr test @ 0933	~~Pass~~ (circled) / Fail	
Notes: Started fills [redacted] @0835 good hold @0840 good hold @0845 good hold @ ~~[illegible]~~ @0932 hold –	> full suck No bleeding – waiting on Air –	[redacted] (b) (3) (A) 5 sec 5 sec 5 sec 37 sec
	[redacted] (b) (3) (A)	
1 HR test 1015	Pass (circled) / Fail	
Notes: did walk and no LEAK OR Drip on all joints Weep noted at LPD at [redacted] (b) (3) (A)		
1 HR test ~~[illegible]~~ 1115	[redacted] (b) (3) (A)	
	Pass (circled) / Fail	
Notes: did walk and no LEAK OR Drip on all joints		
1 HR test 1215	[redacted] (b) (3) (A)	
	Pass (circled) / Fail	
Notes: did walk and NO LEAK OR Drip on all joints		
1 HR test 1315	Oil Tight Door	
	Pass (circled) / Fail	
Notes: Complete walk through all zones and found No LEAKS OR DRIPS on all sections & joints.		

QC Signature:	[redacted] (b) (6)
QA Signature:	

QUALITY VALIDATION (QV) REPORT

Red Hill Bulk Fuel Storage Facility Defuel

Validation Firm	HDR Environmental, Operations and Construction, Inc.	Repair No.	INC-031
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112	Repair ID	FLC.FOR.Bypass
Contract No.	FA890315D0007, D.O. FA8903-19-F-0027	Report Date	22 AUG 2023
QV Engineer	(b) (6)		

VALIDATION

Source	PDF Page No.	Facility Geographic Area	Location Reference
DLA/FLC	N/A	RH Tank Gallery	(b) (3) (A)

Repair Description	Install (b) (3) (A)	Source Contract Reference	47QSHA18D000Y W912DY21F0025 Service Order 682/683
Description of Contractor QC Method(s) Used	Methods outlined in QCP. Threaded piping pneumatically tested for leaks at joints. Butt welded piping received 100% radiographic testing. Socket welded piping received 100% magnetic particle testing. Welded piping hydrostatically tested at (b) (3) (A) psi for 4 hours.	Contractor QC Records Reviewed	QCP and Daily Reports.
Description of QA Validation and Observations	QA methods outlined in QASP. JTF-RH secondary QA and 3rd Party QV completed. JTF-RH QV visually inspected repair & reviewed contractor QC documentation. Final acceptance by government. Date: 18 AUG 2023		

Rework Needed				Photo Record Attached	Repair Work Validated as Complete			
○	Yes	◉	No	See Pages 2-3	◉	Yes	○	No

Comments

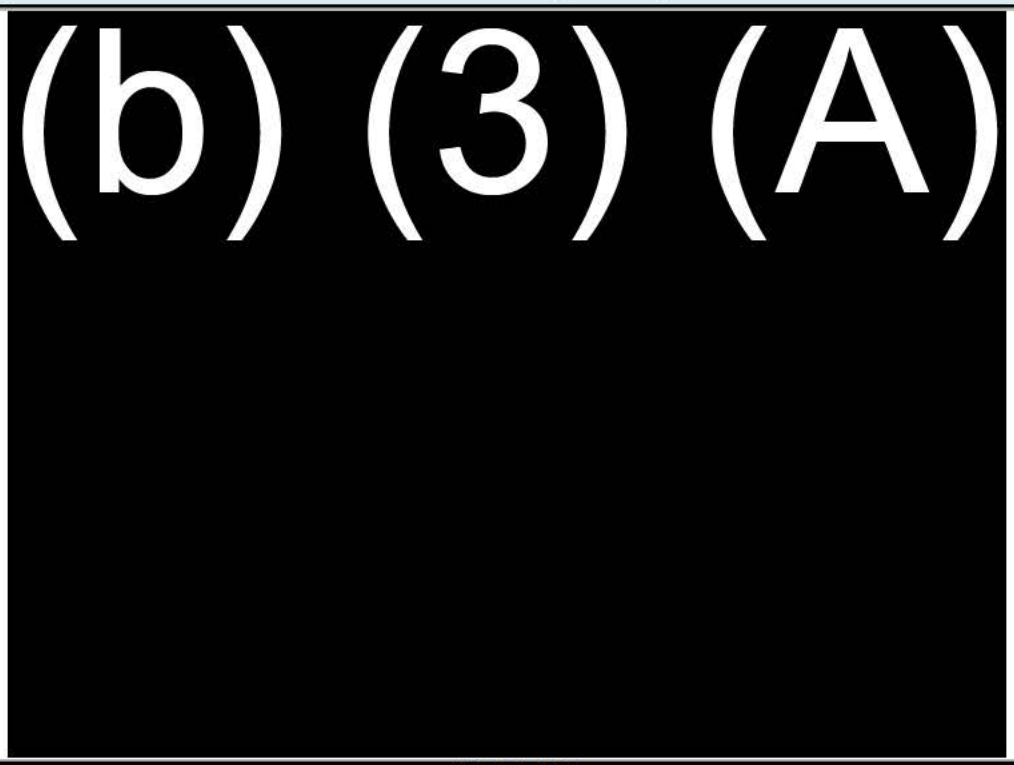
(b) (3) (A)

CERTIFICATION

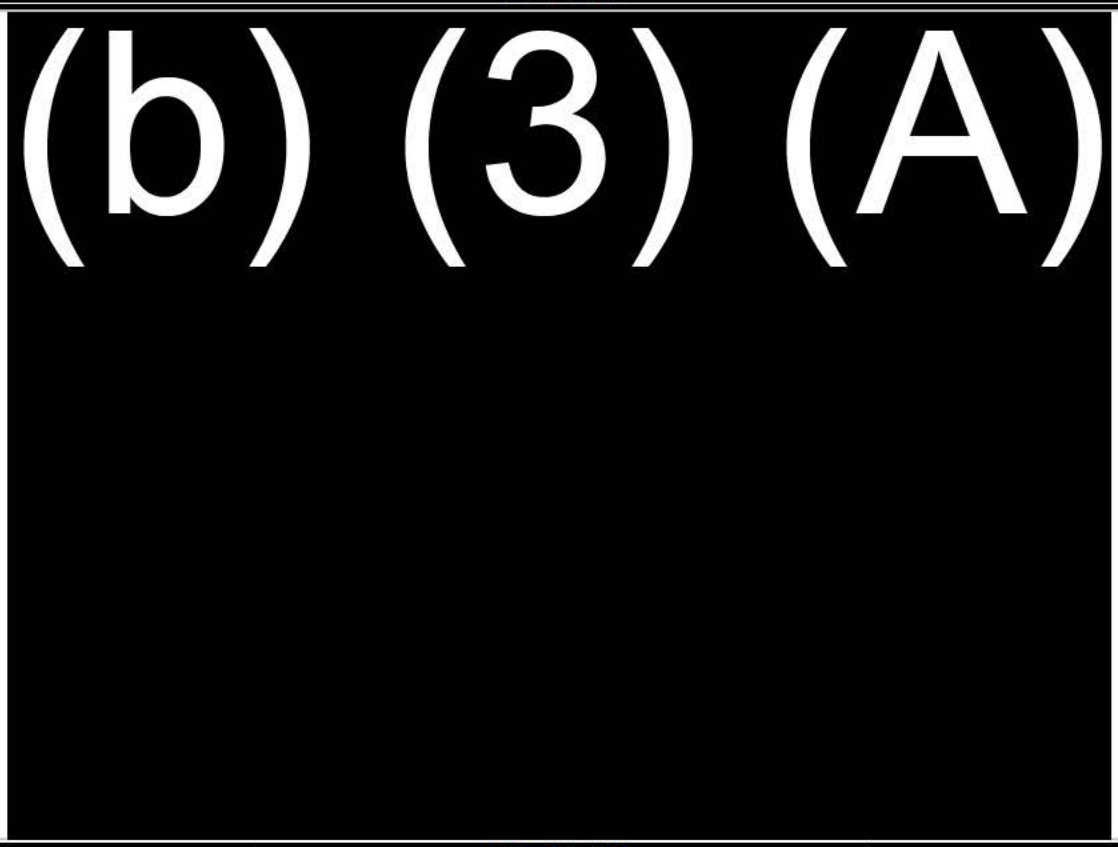
I hereby certify that repair work validated in this report was personally substantiated and this report is true.	QV ENGINEER SIGNATURE	(b) (7)(A)
	DATE	22 AUG 2023

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel



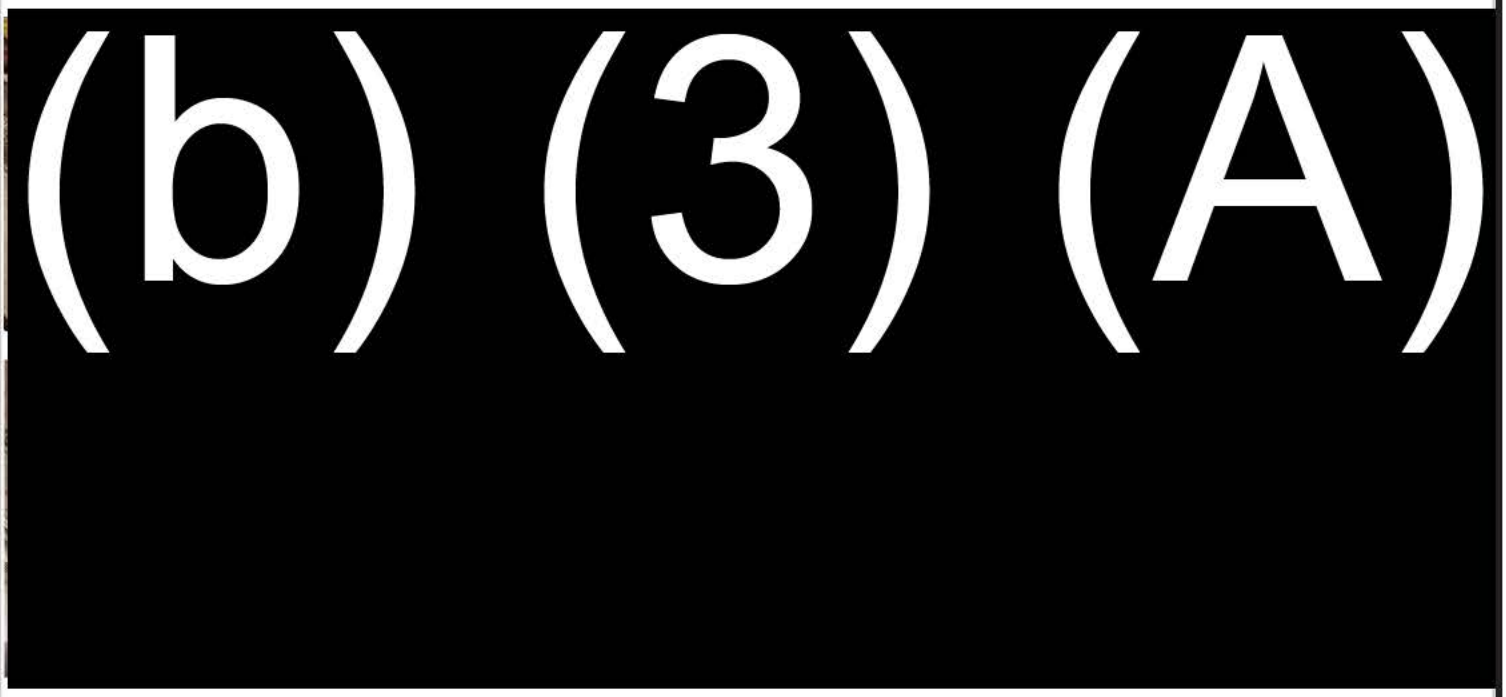
(b) (3) (A)



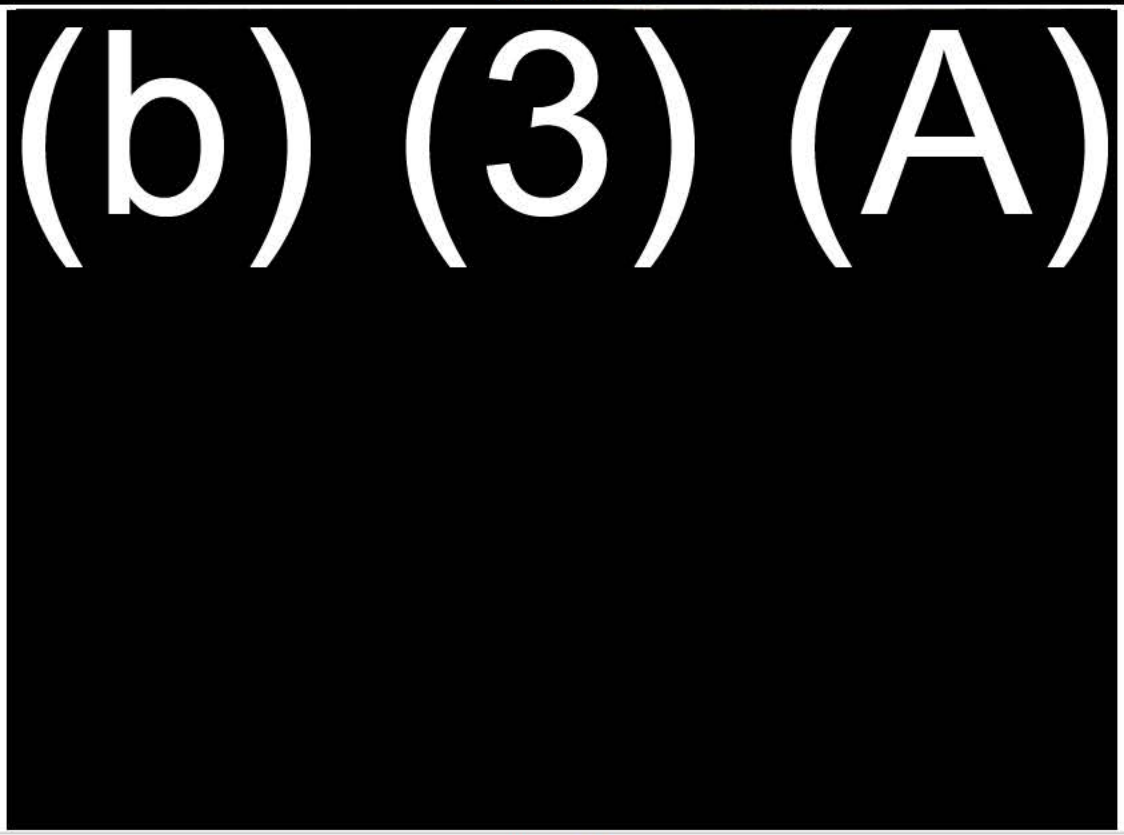
(b) (3) (A)

QUALITY ASSURANCE VALIDATION REPORT

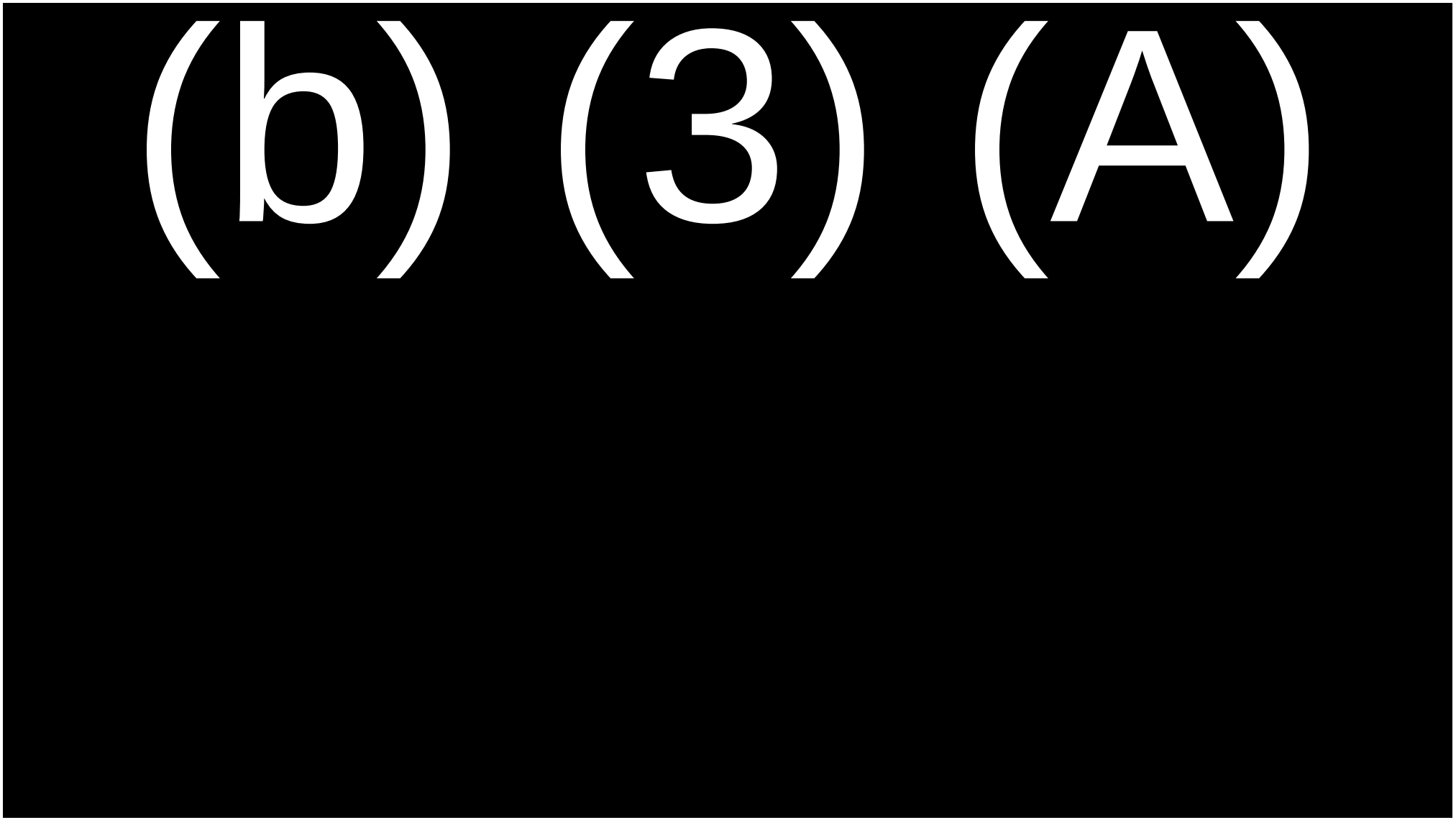
Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)



(b) (3) (A)



Legend

DBB - Double Block and Bleed Valve
HPV - High Point Vent
VFI - Visi-Flow Indicator

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 8-11-2023

Page 1 of 2

Weld W-2 is not part of the final repair. (b) (3) (A) (refer to attached PAUT report dated 15 AUG 2023).

FORM NDT-005.1

CUSTOMER (b) (4)	CUST JOB#	SPECIFICATION ASME Sect V	ACCEPTANCE ASME B31.3		
PROJECT	DWG. NO. —	PROCEDURE NDT 006 REV E	ACC. PROC. B31.3 REV		
RT SOURCE I92	FILM Agfa D5	PB SCREENS	PENS: ASTM B	SHIMS MAT'L/THKNS —	MATERIAL CS
(b) (3) (A)			TYPE Wire	TECHNIQUE USED 3	(b) (3) (A)
			MATERIAL SS	EXPOSURE TIME 10 sec.	
			LOCATION E	PROCESSING MANUAL / AUTOMATIC	

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T. I.	Film Artifact	REMARKS
(b) (3) (A)	0-1	≤.020	✓												
	1-2		✓												
	2-0		✓												
	0-1		✓												
	1-2		✓												
	2-0		✓									✓			
	0-1		✓												
	1-2		✓	✓					✓						
	2-0		✓												
	0-1		✓												
	1-2		✓												
	2-0	↓	✓												

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

NT-TC-1A Level

8-11-2023
Date of Inspection

(b) (4)
Customer

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

(b) (3) (A)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
	0-1	≤.020	/												
	1-2		/												
	2-0		/												
	0-1		/												
	1-2		/												
	2-0		/												
	0-1		/												
	1-2		/		/										Cluster Porosity (b) (3) (A)
	2-0		/		/										
	0-1		/												
	1-2		/		/										
	2-0	↓	/												

(b) (6)

Film Interpreter

SNT-TC-1A Level

8-11-2023

Date of Inspection

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 8-11-2023

Page 1 of 3

(b) (3) (A) These welds are not part of the final repair.

CUSTOMER (b) (4)	CUST JOB#	SPECIFICATION ASME Sect. V	ACCEPTANCE ASME B31.3
PROJECT RHC	DWG. NO. —	PROCEDURE NDT 006 REV E	ACC. PROC. B31.3 REV
RT SOURCE IR 192	FILM Agfa D5/D3 PB SCREENS	PENS: ASTM B	SHIMS MAT'L/THKNS —
(b) (3) (A)		TYPE Wire	TECHNIQUE USED 3
		MATERIAL SS	EXPOSURE TIME Varies
		LOCATION E	PROCESSING [✓] MANUAL [ ] AUTOMATIC

(b) (3) (A)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T. I.	Film Artifact	REMARKS
(b) (3) (A)	0-1	≤ .020													
	1-2	↓													
	2-0	↓													
	0-1	↓													
	1-2	↓													
	2-0	↓													
	0-1	↓													
	1-2	↓													
	2-0	↓													
	0-1	↓													
	1-2	↓													
	2-0	↓													

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

Radiographer — Date — Film Interpreter — SNT-TC-1A Level — 8-11-2023 Date of Inspection — (b) (4) Customer

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
(b) (3) (A)	0 - 1	≤.020	/												
	1 - 2		/												
	2 - 0		/												
	0 - 1		/												
	1 - 2		/												
	2 - 0		/												
	0 - 1		/	/											
	1 - 2		/												
	2 - 0		/												
	0 - 1		/												
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	2 - 0		/												
	0 - 1		/												
	1 - 2		/	/											
	2 - 0		/	/											
	0 - 1		/												
	1 - 2		/												
	2 - 0		/												

(b) (4)

Film Interpreter

II

SNT-TC-1A Level

8/11/2023

Date of Inspection

(b) (4)

(b) (4)

LIQUID PENETRANT EXAMINATION RECORD

Location: (b) (4) | Page 1 of 1

Job No.: 23-193

Code: ASME B31.3

ITEM/ JOB DESCRIPTION: PT Final Inspections for (b) (3) (A)

MATERIAL		PENETRANT MATERIAL				TECHNIQUE
TYPE: CS		BRAND	DESIGNATION	PO#	BATCH #	Preclean Drying Time: 5 minutes
Surface Condition: ☐ As Welded ☐ Ground ☐ Other _____ ☒ New weld	Cleaner	Magnaflux	SKC-S		19G07K	Method of Application: Spray and brush
	Penetrant	Magnaflux	SKL-SP1		06G16K	Dwell Time: 10 minutes
	Emulsifier	N/A	N/A		N/A	Emulsification Time: N/A
	Developer	Magnaflux	SKD-S2		19K25K	Developing Time: 10 minutes
Temperature: 90 degrees 60° F – 125° F Other _____		Illumination: ☒ White		FC		(b) (4) # UV Meter ☐ N/A ☐

Item(s)	Accept	Reject	Sketch/Notes
(b) (3) (A)	☒	☐	PT Prep and Final Examination performed on (b) (3) (A) socket welds. No relevant indications were found. PT Final Inspection is acceptable.
	☒	☐	
	☒	☐	
	☒	☐	
	☒	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Performed By: (b) (6) Level: II Date: 8-11-2023

Reviewed By: Date:

(b) (3) (A)

(b) (3) (A)

(b) (4)

MAGNETIC PARTICLE EXAMINATION RECORD

(b) (4)	Location: (b) (4)	Date: Aug/15/2023
P.O. No.:	Job No. 23-193	
E & I Procedure: NDT 003.2 Rev D	Code: ASME B31.3	

MATERIAL

Type: C/S

Thickness: Variable

Geometry

☒ Pipe ☐ Plate ☐ Rod

☐ Other:

Item: See below…

Stage of Mfg.: See below…

Surface Condition: Wire wheel prepped

MAGNETIZING TECHNIQUE

Yoke: ☒ AC ☐ DC Spacing (b) (6)

Amps Coil Dia. _____

Longitudinal Turns Amp Turns _____

Direct

Circular _____

Central Conductor _____

Amps _____

Inspection Medium ☒ Dry Powder Color: #8a (Red)

☐ Wet Visible Type Batch No.: 14B108

Illumination ☒ White ☐ Ultraviolet

MAGNETIZING EQUIPMENT

Mfg.: Contour probe Serial #: 4778

Calibration Date Aug/15/2023

Field Verification By: Pie Gauge

UV Meter : n/a

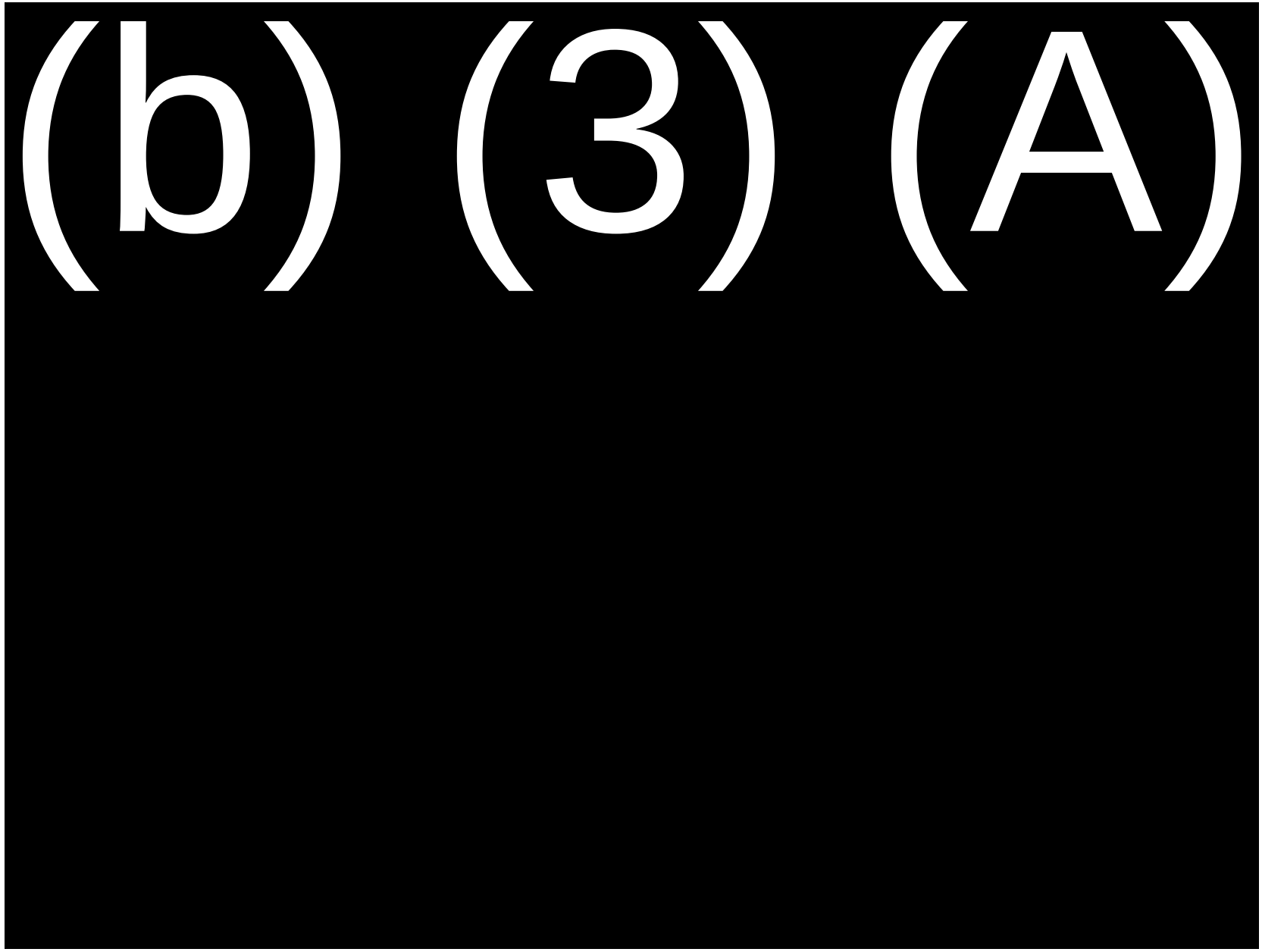
MODEL: n/a Serial #: n/a

Item(s)	Accept	Reject
(b) (3) (A)	☒	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐

Sketch/Notes

(b) (6)

Performed By : (b) (6) Level: II Date Aug/15/2023 Reviewed By: Date:


(b) (3) (A)

(b) (4)

(b) (4)

(b) (3) (A)

(b) (3) (A)

(b) (3) (A)

(b) (4)

(b) (6)

PAUT/TOFD Level II (SNT-TC-1A)

(b) (4)

SCOPE

(b) (4), conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at their shop in (b) (4) on August/15/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

TECHNIQUE

(b) (3) (A), (b) (6)

.

Limitations

Weld volume and HAZ coverage was 100% for all welds. All pipe to pipe joints are scanned from both sides of weld centerline. All pipe to fitting joints are scanned from pipe side of weld centerline. Scans were recorded using an Olympus Cobra Scanner.

CALIBRATION

Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) with (b) (3) (A) side drilled holes.
Steel (b) (3) (A) calibration standard (S/N: 3E-037) 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)	Accepted

(b) (4)

Weld No: (b) (3) (A), 90° skew

(b) (3) (A)

No rejectable flaw indications were observed in this scan.

(b) (3) (A) Threaded Piping

(b) (4)

PAGE 1 OF 2

(b) (3) (A) Piping
Red Hill

PNEUMATIC TEST PROCEDURE

1. Instal[redacted] threaded piping
2. Using 185 cfm air compressor [redacted] threaded air hose to (b) (3) (A)
3. Introduce compressed air to (b) (3) (A) Check all valves, fittings, joints, flanges, etc. for air leaks using soap suds.
4. Continue to soap all valves, fittings, joints, flanges, etc. for air leaks.
5. Once confirmed pneumatic pressure has held for required duration, release pressure

TEST FORM

TEST DATA	
Specification	
Equipment	185 CFM Air Compressor
	Test Header w/ Manifold
Subcontractors	None
Test Fluid	Compressed Air
Preliminary Test Pressure	(b) (3) (A) PSI
Test Pressure	PSI
Test Duration	Release Pressure After Comp

Testing

	Test Start	Test End
Date	8-14-23	8-14-23
Time	3:00	3:05
Temperature		
Weather		
Pressure	(b) (3) (A)	

EXAMINATION PERSONNEL

(b) (6), (b) (4)

TITLE

NAME

COMPANY

TITLE

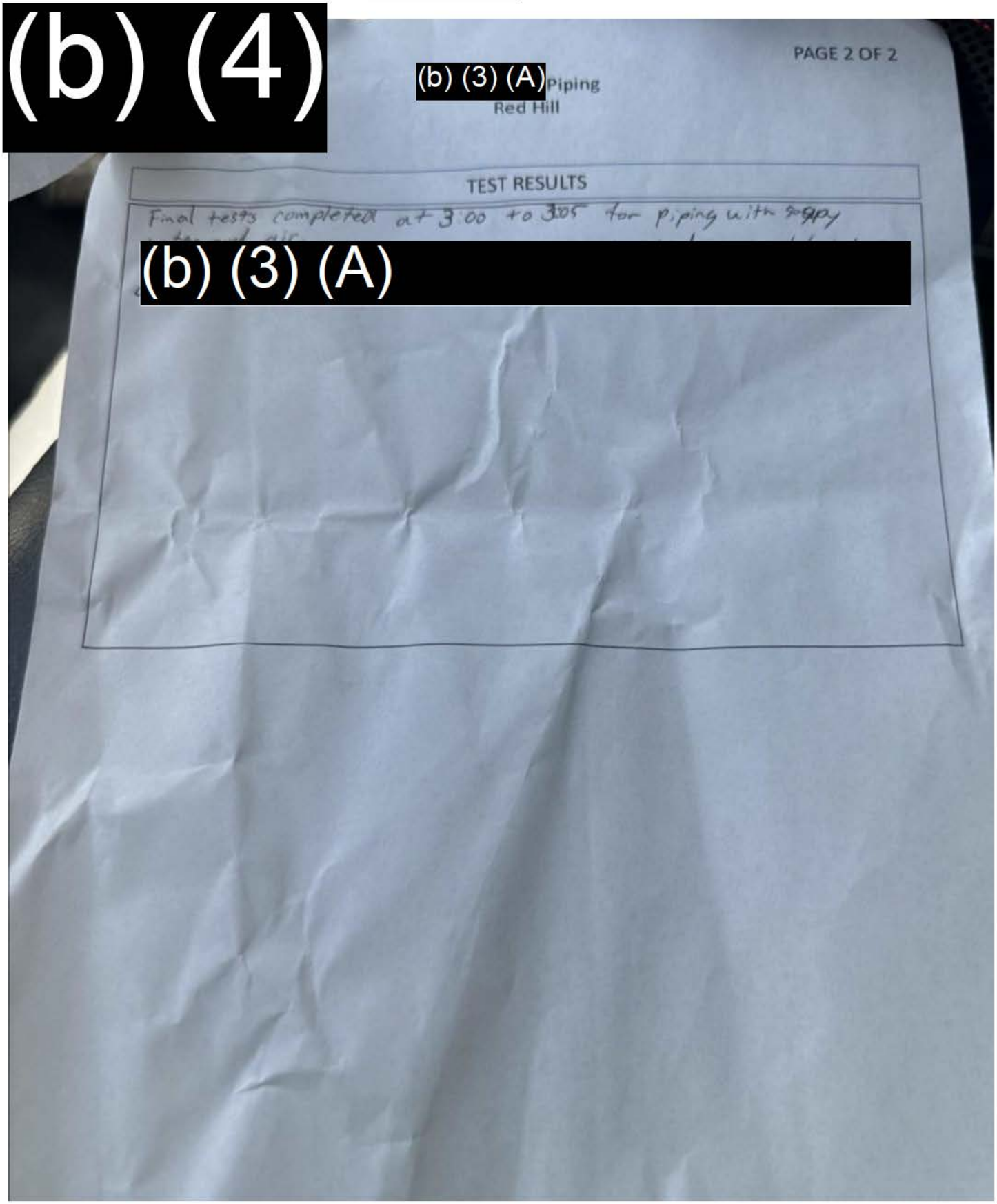
NAME

COMPANY

TITLE

(b) (3) (A) Threaded Piping

(b) (4)



QUALITY VALIDATION (QV) REPORT

Red Hill Bulk Fuel Storage Facility Defuel

Validation Firm	HDR Environmental, Operations and Construction, Inc.	Repair No.	INC-044
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112	Repair ID	(b) (3) (A)
Contract No.	FA890315D0007, D.O. FA8903-19-F-0027	Report	21 AUG 2023
QV Engine	(b) (6)		

VALIDATION

Source	PDF Page No.	Facility Geographic Area	Location Reference
JTF	N/A	LAT	(b) (3) (A)

Repair Description	Install crossover vent (b) (3) (A)	Source Contract Reference	47QSHA18D000Y W912DY21F0025 Service Order 684E
Description of Contractor QC Method(s) Used	Methods outlined in QCP. 100% of butt welds radiographically tested. Crossover piping assemblies hydrostatically tested at (b) (3) (A) PSI for 4 hours. Socket welded HPV piping 100% magnetic particle tested.	Contractor QC Records Reviewed	QCP and Daily Reports.
Description of QA Validation and Observations	QA methods outlined in QASP. JTF-RH secondary QA and 3rd Party QV completed. JTF-RH QV visually inspected repair & reviewed contractor QC documentation. Final acceptance by government. Date: 17 AUG 2023		

Rework Needed				Photo Record Attached	Repair Work Validated as Complete			
○	Yes	◉	No	See Pages 2-3.	◉	Yes	○	No

Comments

(b) (3) (A)

CERTIFICATION

I hereby certify that repair work validated in this report was personally substantiated and this report is true.	QV ENGINEER SIGNATURE	(b) (6)
	DATE	21 AUG 2023

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

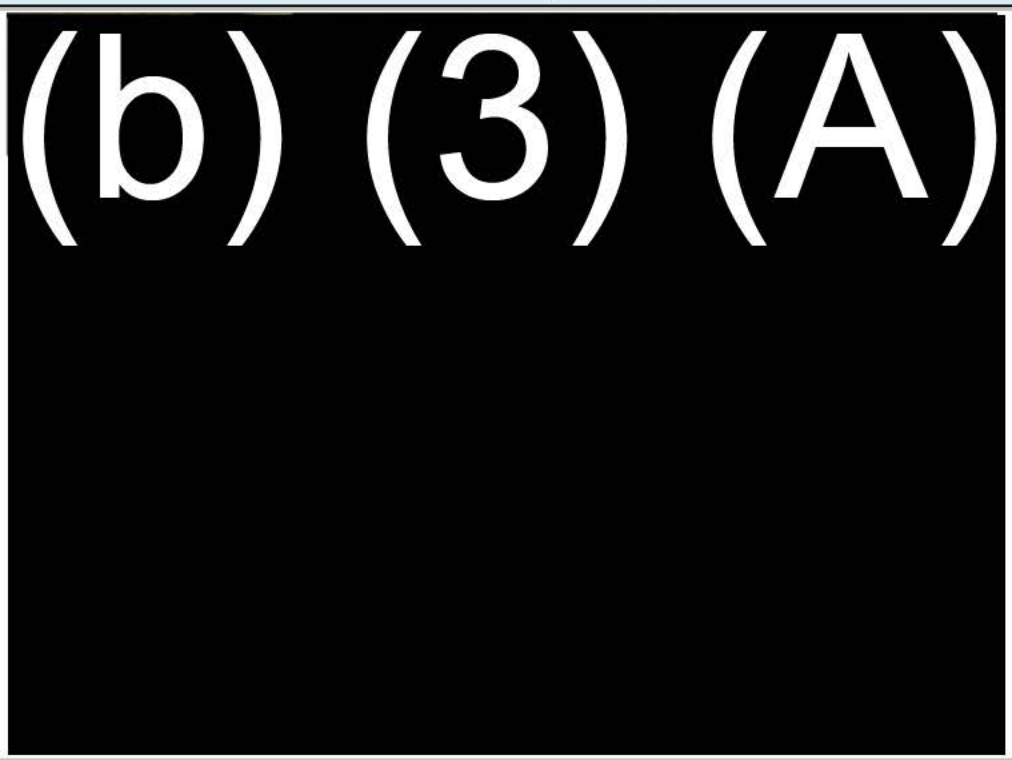
(b) (3) (A)

(b) (3) (A)

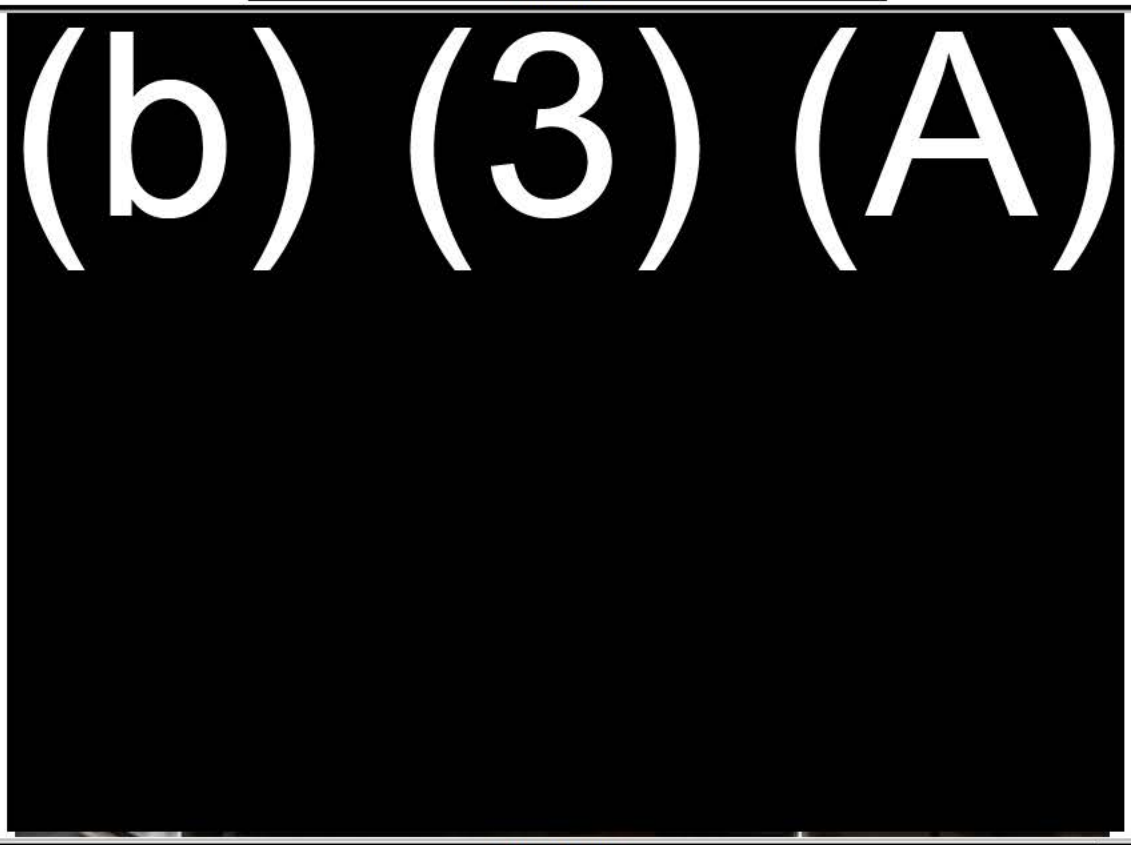
(b) (3) (A)

QUALITY ASSURANCE VALIDATION REPORT

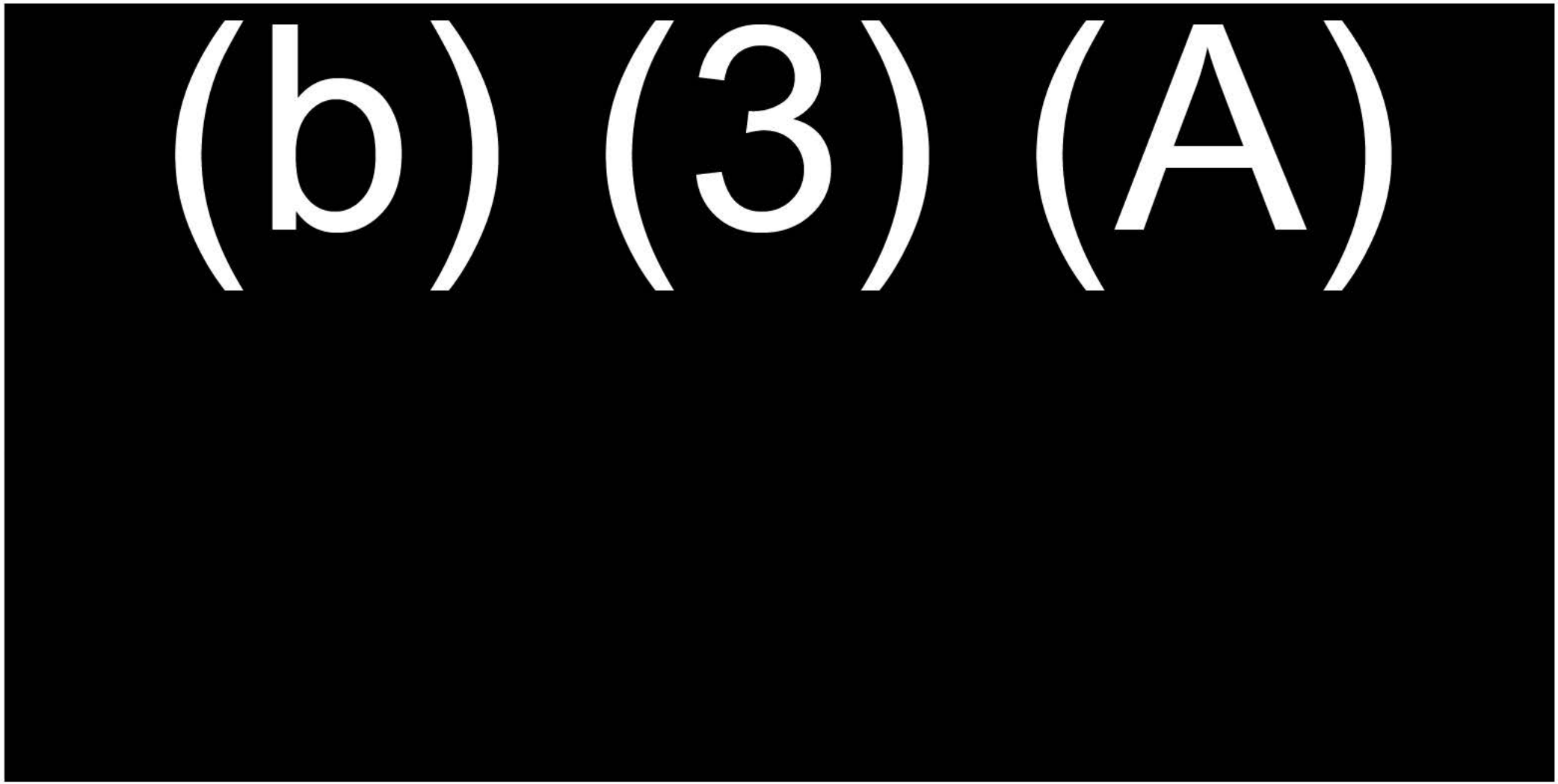
Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)



(b) (3) (A)


(b) (3) (A)

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 8/3/23

Page 3 of 3

CUSTOMER (b) (4)	CUST JOB# 62257-114	SPECIFICATION ASME V	ACCEPTANCE ASME B31.3		
PROJECT Red Hill sump	DWG. NO.	PROCEDURE NDT-006 REV C	ACC. PROC. B31.3 REV 2018		
RT SOURCE Ir192	FILM AGFA D5	PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS /	MATERIAL CS
(b) (3) (A)			TYPE 1B	TECHNIQUE USED 3	THICK (b) (3) (A)
			MATERIAL SS	EXPOSURE TIME 10 sec	JOINT
			LOCATION F1	PROCESSING [ ] MANUAL [ ] AUTOMATIC	PIPE D

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
W1	0-4	.022	X												
	4-8	/	X												
	8-0	/	X												
W2	0-4	.022	X												
	4-8	/	X												
	8-0	/	X												
W3	0-4	.022	X												
	4-8	/	X												
	8-0	/	X												
W4	0-4	.022	X												
	4-8	/	X												
	8-0	/	X												

1. Single Wall Panoramic
2. Single Wall Offset
3. Double Wall
4. Double Wall 0/90 Elliptical
5. Plate
6. Other

(b) (6)

II — SNT-TC-1A Level

8/3/23 — Date of Inspection

Customer

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
W5	0-4	.02y	X												
	4-8		X												
	8-0		X												
W6	0-4	.02y	X												
	4-8		X												
	8-0		X												
W7	0-4	.02y		X											
	4-8			X											
	8-0			X											
W8	0-4	.02y	X												
	4-8		X												
	8-0		X												
W9	0-4	.02y	X	X											
	4-8		X												
	8-0		X												
W10	0-4	.02y	X												
	4-8		X	X											
	8-0		X												

(b) (6)

Film Interpreter

II

SNT-TC-1A Level

8/3/23

Date of Inspection

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS *UG*	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
W11	0-4	.020	✓												
	4-8		✓												
	8-0		✓	X	X										
W12	0-4	.020	✓												
	4-8		✓												
	8-0		✓	X	X										
W13	0-4	.020	✓												
	4-8		✓												
	8-0		✓												
W14	0-4	.020	✓												
	4-8		✓												
	8-0		✓												
W15	0-4	.020	✓												
	4-8		✓												
	8-0		✓												

(b) (6)

Film Interpreter

II

SNT-TC-1A Level

8/3/23

Date of Inspection

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 8/4/23

Page 1 of 1

CUSTOMER (b) (4)	CUST JOB# 602252-114	SPECIFICATION ASME V	ACCEPTANCE ASME B31.3		
PROJECT Red Hill Sump	DWG. NO.	PROCEDURE NDT006 REV C	ACC. PROC. B31.3 REV 2015		
RT SOURCE IR-197	FILM AGFA D5	PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS ✓	MATERIAL CS
(b) (3) (A)			TYPE 1B	TECHNIQUE USED 3	(b) (3) (A)
			MATERIAL SS	EXPOSURE TIME 10 Sec	
			LOCATION F	PROCESSING [X] MANUAL [ ] AUTOMATIC	

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
W1 (b) (3) (A)	0-4	.020	X												
	4-8	/	X												
	8-0	/	X												
W2	0-4	.020	X	/											
W3	~~0-4~~ 4-8	.020	X												
W4	8-0	.020	X												
W5	8-0	.020	X												

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

(b) (6)

Radiographer | Date | Film Interpreter | II SNT-TC-1A Level | 8/4/23 Date of Inspection | Customer

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
(b) (3) (A)	0 - 1	≤.020	/												
	1 - 2	"	/		/										
	2 - 0	"	/												
	0 - 1	"	/												
	1 - 2	"	/												
	2 - 0	"	/												
	0 - 1	"	/												
	1 - 2	"	/		/										
	2 - 0	"	/												
	0 - 1	"	/												
	1 - 2	"	/												
	2 - 0	"	/												
	0 - 1	"	/		/										
	1 - 2	"	/												
	2 - 0	"	/												
	0 - 1	"	/		/										
	1 - 2	"	/												
	2 - 0	"	/		/										

(b) (6)

NT-TC-1A Level

8-11-2023

Date of Inspection

LIQUID PENETRANT EXAMINATION RECORD

(b) (5)

(b) (4)

Location (b) (4) | Page 1 of 1

Job No.: 23-178

Code: ASME B31.3

ITEM/ JOB DESCRIPTION: PT Final Inspections (b) (3) (A) ¾"

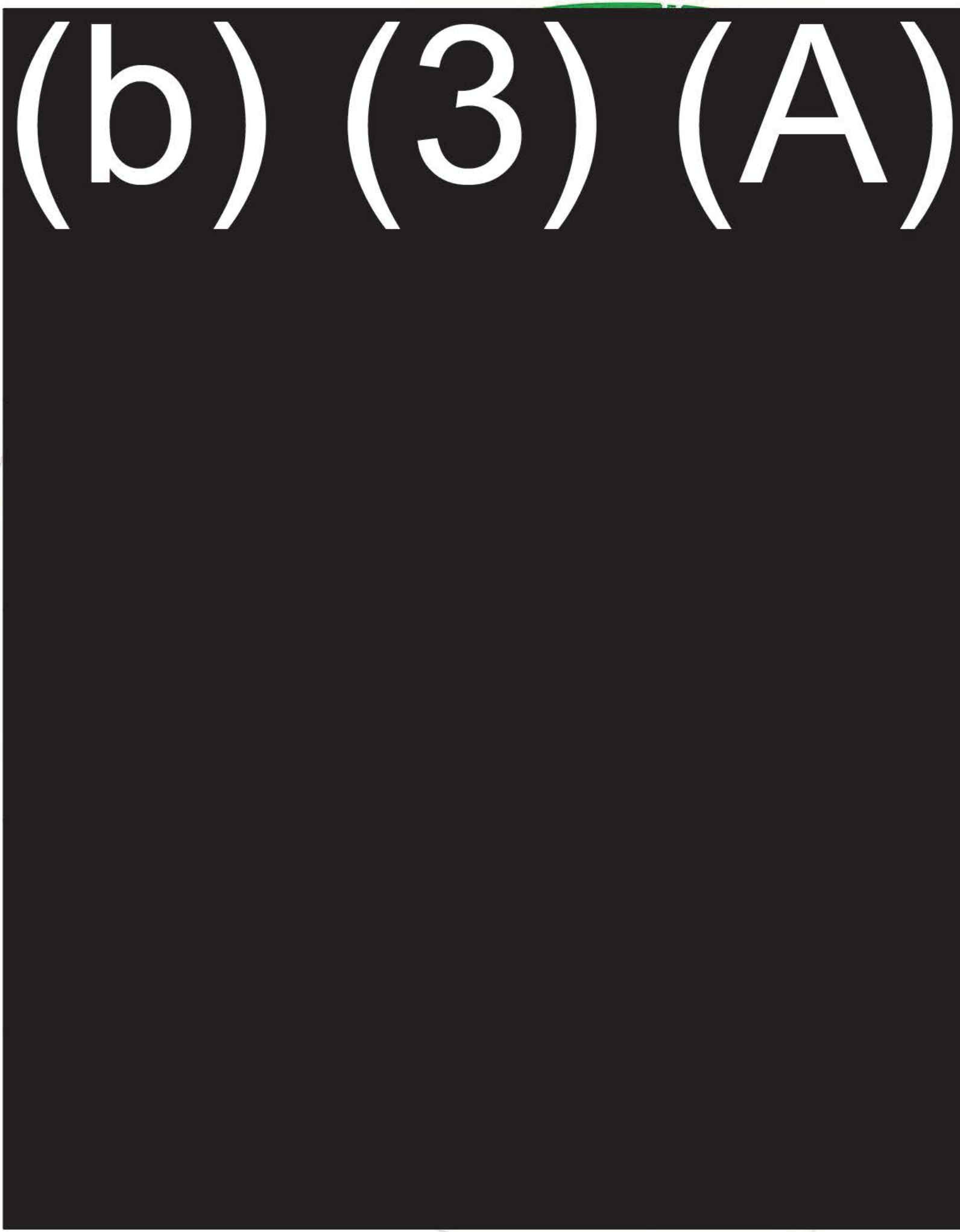
MATERIAL		PENETRANT MATERIAL				TECHNIQUE
TYPE: CS		BRAND	DESIGNATION	PO#	BATCH #	Preclean Drying Time: 5 minutes
Surface Condition: ☐ As Welded ☐ Ground ☐ Other _____ ☒ New weld	Cleaner	Magnaflux	SKC-S		19G07K	Method of Application: Spray and brush
	Penetrant	Magnaflux	SKL-SP1		06G16K	Dwell Time: 10 minutes
	Emulsifier	N/A	N/A		N/A	Emulsification Time: N/A
	Developer	Magnaflux	SKD-S2		19K25K	Developing Time: 10 minutes
Temperature: 90 degrees 60° F – 125° F Other _____		Illumination: ☒ White		FC		(b) (4) Control # UV Meter ☐ N/A ☐

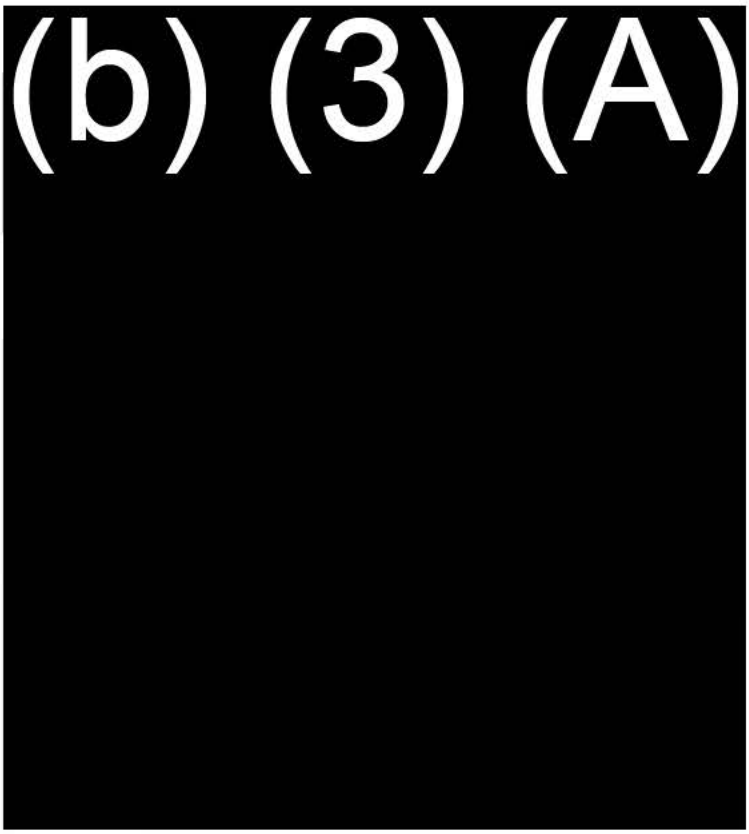
(b) (3) (A)

Item(s)	Accept	Reject	Sketch/Notes
	☒	☐	PT Prep and Final Examination performed on (b) (3) socket welds.
	☒	☐	No relevant indications were found.
	☒	☐	PT Final Inspection is acceptable.
	☒	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Performed By: (b) (6) Level: II Date: 8-11-2023

Reviewed By: Date:


(b) (3) (A)


(b) (3) (A)

(b) (4)

(b) (4)

VISUAL INSPECTION RECORD

☐ Structural — Client: (b) (4)

☒ Pipe ☐ Casting — Report No.: 08012023KS

☐ Tank No.: _____ — Job No.: 23-180

Material Type: Carbon Steel — PO No.: _____

Weld Type: ☐ Fillet ☒ Butt ☐ Lap ☐ Other _____

Drawing No.: N/A Sheet No.: N/A Rev.: N/A

Location: Red Hill - (b) (3) (A) Shop ☐ Field ☒

Surface Condition: As Welded Stage of Mfg.: All Welding

Specifications: ASME B31.3 Acceptance Std: ASME B31.3

Gauges: N/A

Item (s)	Accept	Reject	Sketch / Notes
(b) (3) (A)			Fit up, Root, During Welding, and Final Welding.
	☒	☐	Completed

Remarks/Comments:

Visual inspection performed per job specification Fit up, Root Weld, During Welding, and Final Weld. No rejectable indications were noted during this inspection.

Performed By: (b) (6) (b) (6) Date: August 01, 2023

(b) (4)

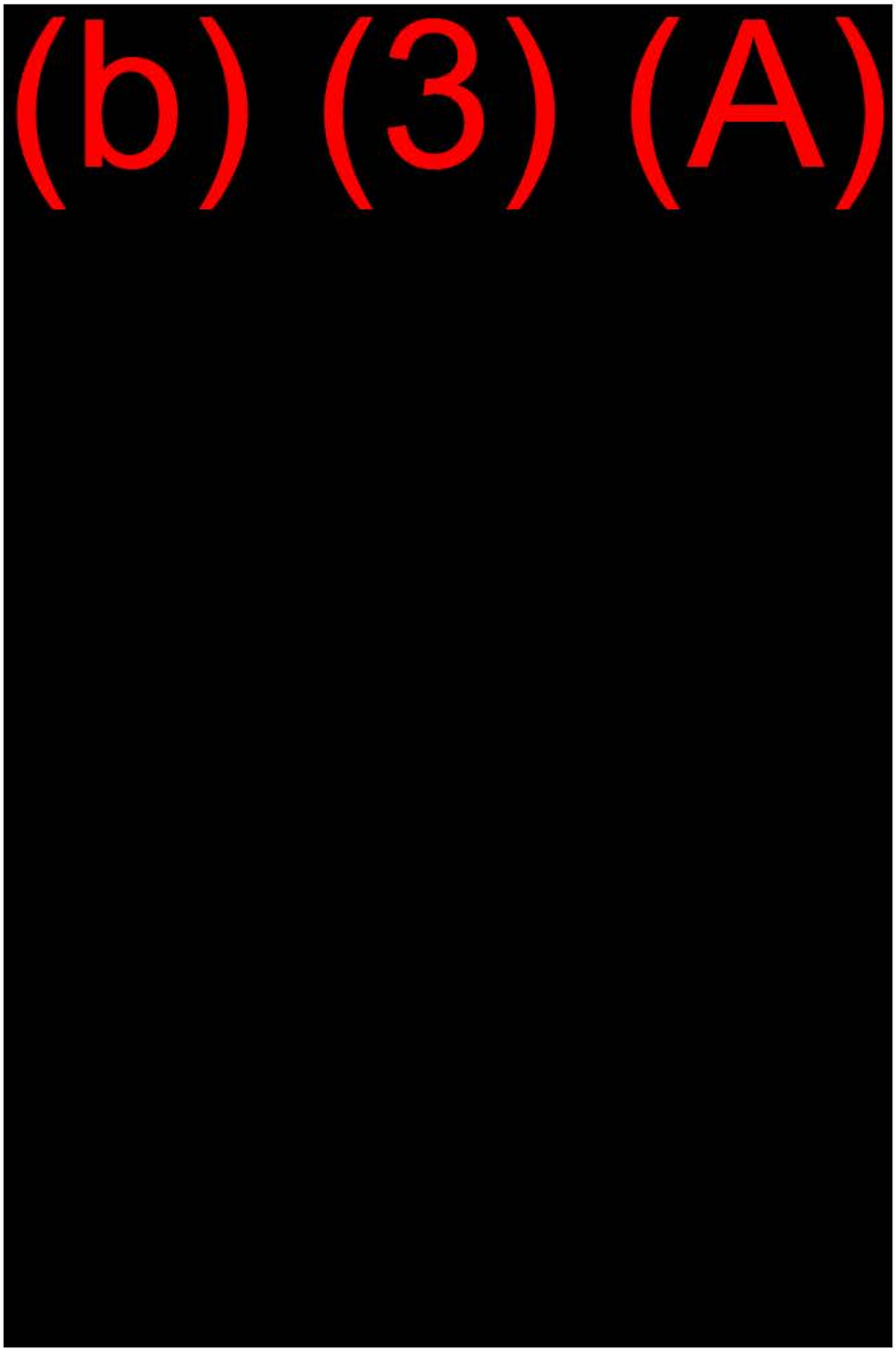
(b) (4)

(b) (3) (A)

(b) (4)

(b) (4)

(b) (3) (A)



(b) (4)

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 8/2/23

Page 1 of 1

FORM NDT-005.1

CUSTOMER (b) (4)	CUST JOB#	SPECIFICATION ASME V	ACCEPTANCE ASME B31.3		
PROJECT TIC 7/8 VSLT	DWG. NO.	PROCEDURE NDT006 REV E	ACC. PROC. B31.3 REV 2015		
RT SOURCE IR192	FILM AGFA D5	PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS —	MATERIAL CS
(b) (3) (A)			TYPE 1B	TECHNIQUE USED 3	(b) (3) (A)
			MATERIAL SS	EXPOSURE TIME 5:00	
			LOCATION F	PROCESSING [ ] MANUAL [ ] AUTOMATIC	

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
(b) (3) (A)	0-1	.020	X												(b) (3) (A)
	1-2		X												
	2-3		X												
	3-0		X												

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

II — SNT-TC-1A Level

8/2/23 — Date of Inspection

Customer

MAGNETIC PARTICLE EXAMINATION RECORD

(b) (4) (b) (4)

	Location: Red Hill; JBPHH	Date: 08-01-2023
	Job No. 23-180	
	Code: AWS D1.1	

MATERIAL	MAGNETIZING TECHNIQUE	MAGNETIZING EQUIPMENT
Type: C/S	Prod: ☒ AC ☐ DC Spacing (b) (4)	Mfg.: Parker Serial #: 23962
Thickness: STD	Amps fixed Coil Dia. ____	Calibration Date 08/01/2023
Geometry: ☒ Pipe ☐ Plate ☐ Rod ☐ Other: ____	Longitudinal Turns n/a Amp Turns ____	Field Verification By: Pie Gauge
	Direct n.a	
	Circular n/a	UV Meter: n/a
Item: 3" Vesselet	Central Conductor n/a	MODEL: n/a Serial #: n/a
	Amps n/a	
Stage of Mfg.: New	Inspection Medium ☒ Dry Powder	Color: RED
	☐ Wet Visible	Type Batch No.: 22A006
Surface Condition: Buffed Clean	Illumination ☒ White ☐ Ultraviolet	

Item(s)	Accept	Reject	Item(s)	Accept	Reject	Sketch/Notes
(b) (3) (A)						MT Inspection was requested and performed on the root weld of a new Vesselet. No relevant indications were found during this inspection. NOTE: (b) (3) (A), (b) (4) .
	☒	☐				

Performed By: (b) (6) Date 08/01/2023 Reviewed By: Date: Page 1 of 1

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 7/24/23

Page 1 of 1

FORM NDT-005.1

CUSTOMER (b) (4)	CUST JOB#	SPECIFICATION ASME V	ACCEPTANCE ASME B31.3
PROJECT (b) (3) (A)	DWG. NO.	PROCEDURE NDT004 REV E	ACC. PROC. B31.3 REV 2015
RT SOURC	PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS /
		TYPE 1B	TECHNIQUE USED 3
		MATERIAL SS	EXPOSURE TIME 12 Sec
		LOCATION F	PROCESSING X MANUAL AUTOMATIC

(b) (3) (A)

(b) (3) (A)

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T.I.	Film Artifact	REMARKS
(b) (3) (A)	0-4	.020	X												(b) (6)
	4-8	/	X												
	8-0	/	X												
	0-4	.020	X												
	4-8	/	X												
	8-0	/	X												

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

II	7/24/23	
SNT-TC-1A Level	Date of Inspection	Customer

Rework - Quality Validation Report

ENSURING A FREE AND OPEN INDO-PACIFIC

NO.	Validation Complete	Date	Location
INC-026	Contractor removed existing pipe spools at (b) (3) (A). Contractor welded insert type vessolet fittings at the pipe penetration. Butt welds were 100% inspected via Radiographic Testing. Contractor pre-fabricated socket-welded high point vent assemblies for bolted installation in the tunnel. Socket welds were 100% inspected via visual testing and dye penetrant testing. Pipe spools hydrostatically tested for 4 hours at a minimum pressure of (b) (3) (A) psi. NDE result table, NDE inspection report, weld map/design detail included for reference.	21 Aug 23	(b) (3) (A)

QUALITY VALIDATION (QV) REPORT

Red Hill Bulk Fuel Storage Facility Defuel

Validation Firm	HDR Environmental, Operations and Construction, Inc.	Repair No.	INC-026
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112	Repair ID	(b) (4)
Contract No.	FA890315D0007, D.O. FA8903-19-F-0027	Report Date	11 AUG 2023
QV Engineer	(b) (6)		

VALIDATION

Source	PDF Page No.	Facility Geographic Area	Location Reference
EXWC	N/A	RH Tank Gallery	(b) (3) (A)

Repair Description	Install HPVs on (b) (3) (A)	Source Contract Reference	47QSHA18D000Y W912DY21F0025
Description of Contractor QC Method(s) Used	Methods outlined in detail in CQCP. Pipe butt welds 100% inspection via Radiographic Testing. Socket welds 100% NDE by VT and PT. Spools hydrostatically tested.	Contractor QC Records Reviewed	CQCP and Daily Reports.
Description of QA Validation and Observations	Government Quality Assurance is documented by the QSR's in the daily CQC reports using NAVFAC Form 4296/2. Visually inspected completed installation; matched completed construction against design and material submittals. Reviewed NDE reports. JTF-RH secondary QA and 3rd Party QV completed. JTF-RH QV visually inspected repairs and reviewed contractor QC documentation (Work Plan, submittals, daily reports). Final acceptance by government. Date: 13 JUL 2023		

Rework Needed				Photo Record Attached	Repair Work Validated as Complete			
○	Yes	◉	No	See Page 2.	◉	Yes	○	No

Comments

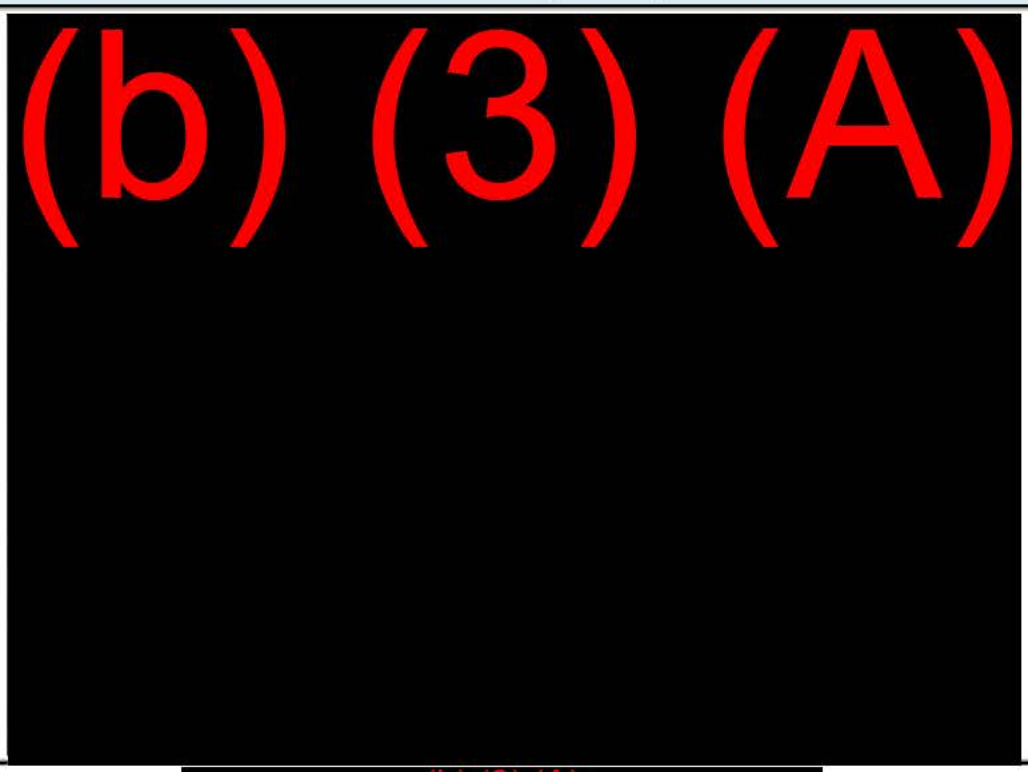
Contractor removed existing pipe spools at (b) (3) (A) Contractor welded insert type vessolet fittings at the pipe penetration. Butt welds were 100% inspected via Radiographic Testing. Contractor pre-fabricated socket-welded high point vent assemblies for bolted installation in the tunnel. Socket welds were 100% inspected via visual testing and dye penetrant testing. Pipe spools hydrostatically tested for 4 hours at a minimum pressure of (b) (3) (A) psi.
NDE result table, NDE inspection report, weld map/design detail included for reference.

CERTIFICATION

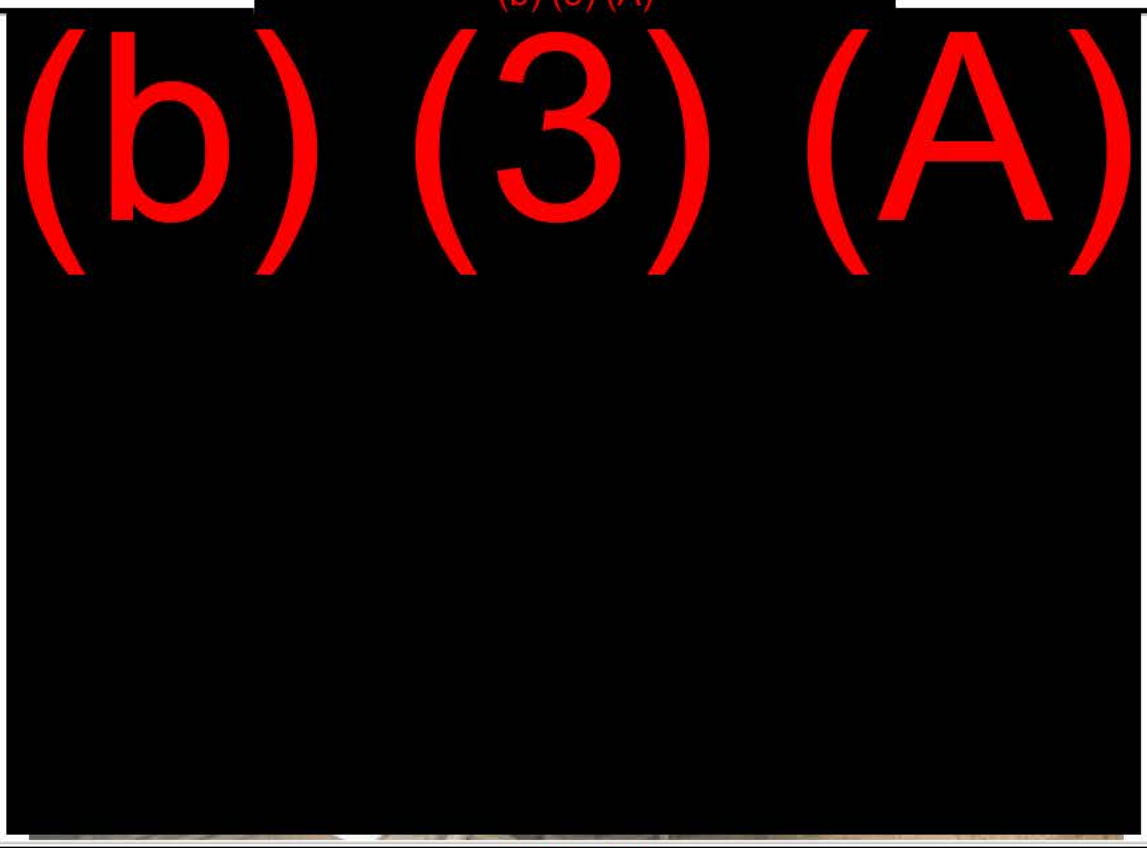
I hereby certify that repair work validated in this report was personally substantiated and this report is true.	QV ENGINEER SIGNATURE	(b) (7)(A)
	DATE	21 AUG 2023 / Rev 2

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel



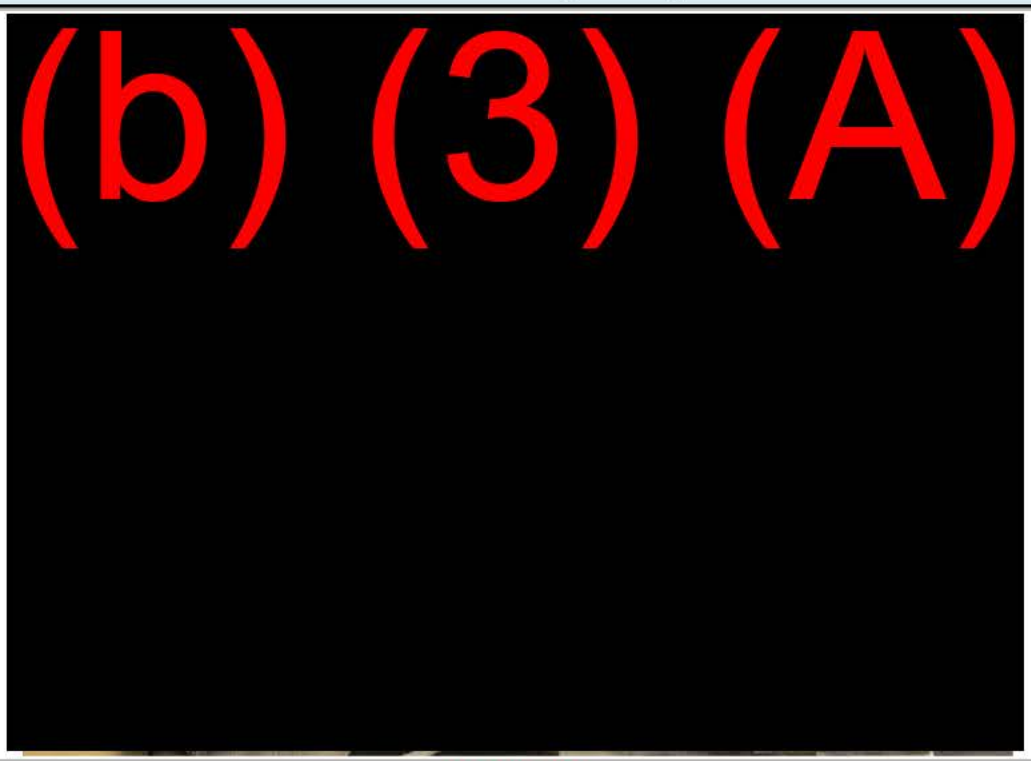
(b) (3) (A)



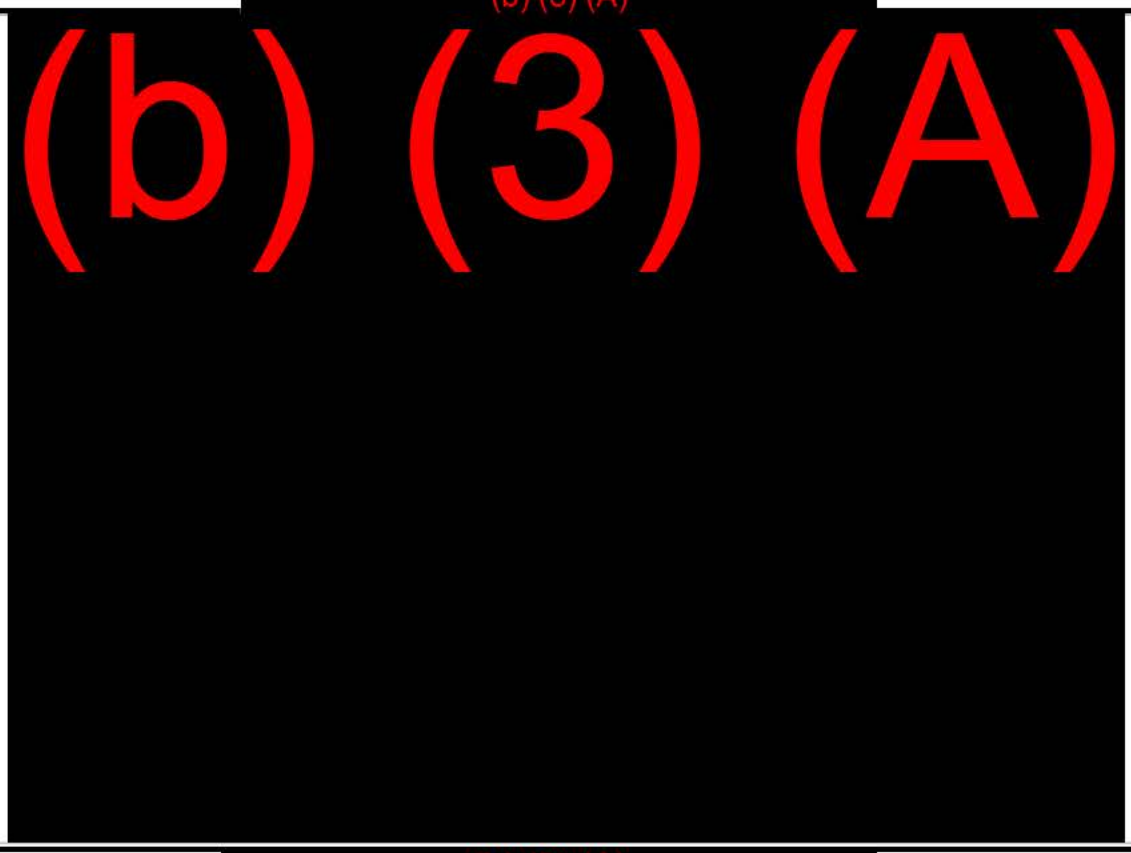
(b) (3) (A)

QUALITY ASSURANCE VALIDATION REPORT

Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)

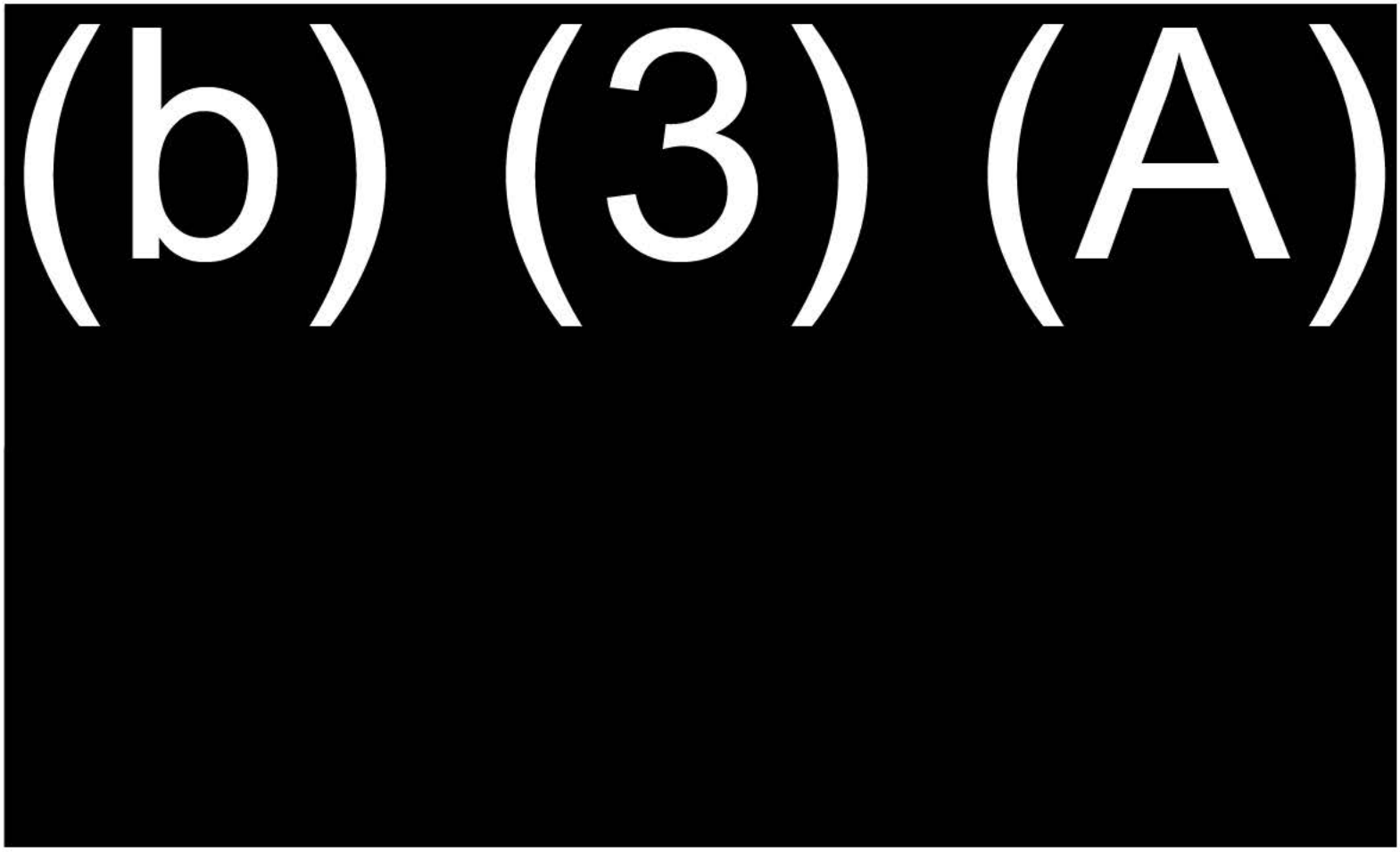


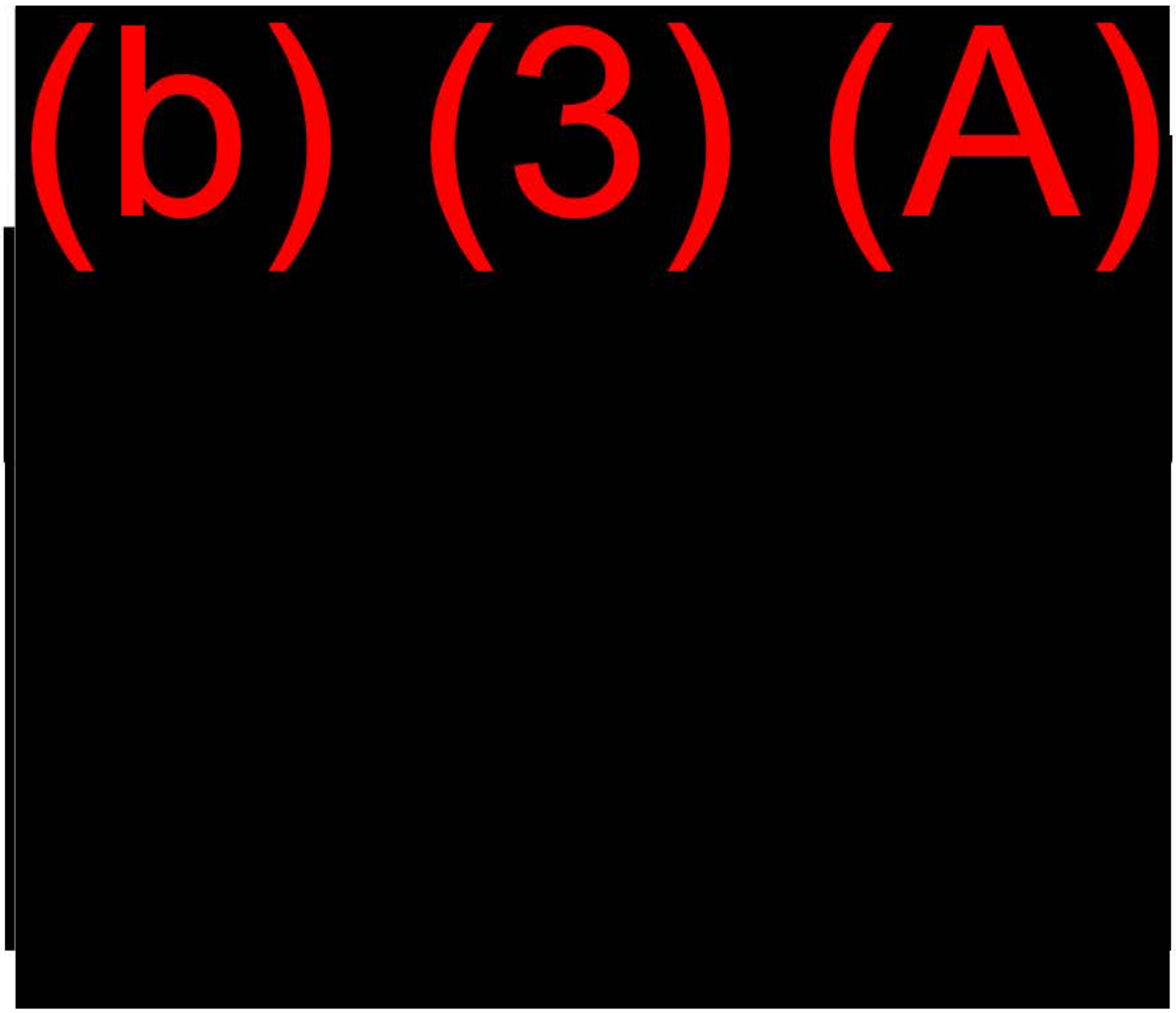
(b) (3) (A)

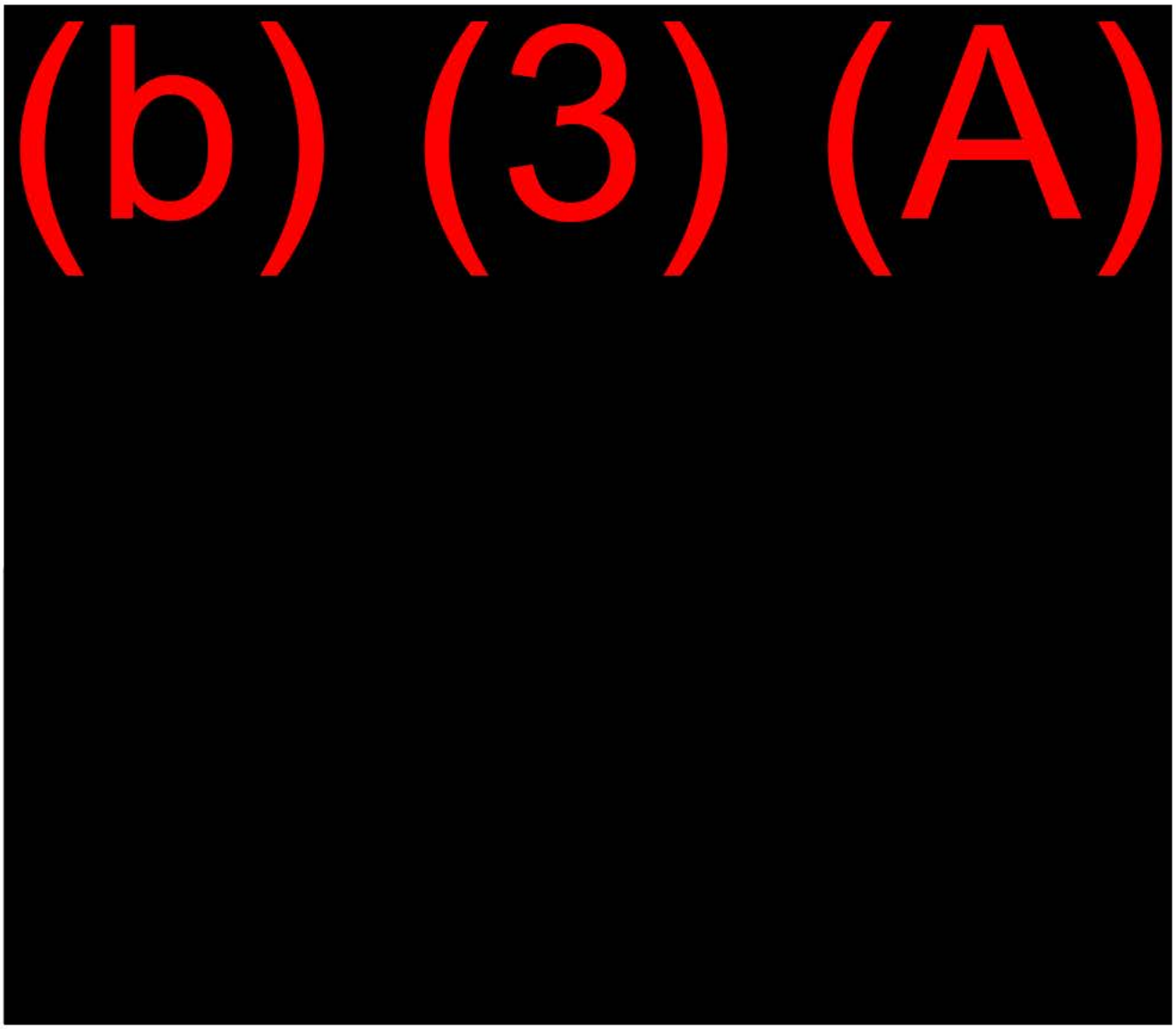
WELDERS - ID
(b) (6)

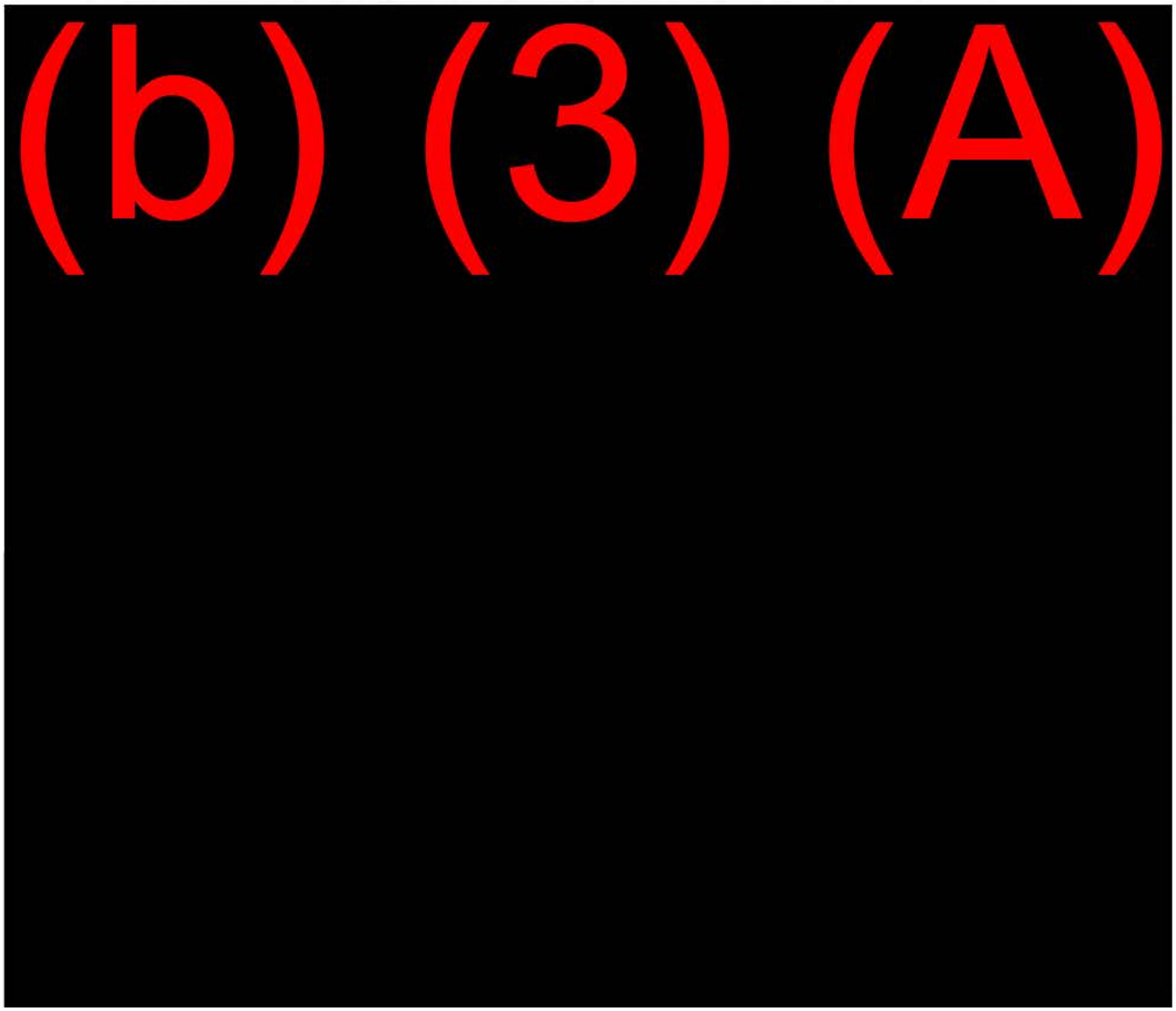
WELD INFORMATION								INSPECTION INFORMATION			
Weld ID	Number	SIZE	TYPE	JOINT	JOINT	WELDER ID	DATE	NDE TYPE	INITIALS	DATE	RESULTS
(b) (3) (A)		(b) (3) (A)		(b) (3) (A)		(b) (6)					
	1		BW				6/14/2023	CWI VT	(b) (6)	6/14/2023	PASSED
								RT		6/30/2023	PASSED
	2		BW				6/9/2023	CWI VT			PASSED
								RT		6/12/2023	PASSED
	3		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	4		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	5		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	1		BW				6/16/2023	CWI VT		6/16/2023	PASSED
								RT		6/30/2023	PASSED
	2		BW				6/9/2023	CWI VT			PASSED
								RT		6/12/2023	PASSED
	3		SW				6/28/2023	PT		6/30/2023	PASSED
											PASSED
	4		SW				6/28/2023	PT		6/30/2023	PASSED
											PASSED
	5		SW				6/28/2023	PT		6/30/2023	PASSED
											PASSED
	6		SW				6/28/2023	PT		6/30/2023	PASSED
											PASSED
	7		SW				6/28/2023	PT		6/30/2023	PASSED
	1		BW				6/30/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	2		BW				6/30/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	3		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	4		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	5		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	1		BW				6/14/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	2		BW				6/15/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	3		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	4		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	5		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	1		BW				6/14/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	2		BW				6/15/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	3		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED

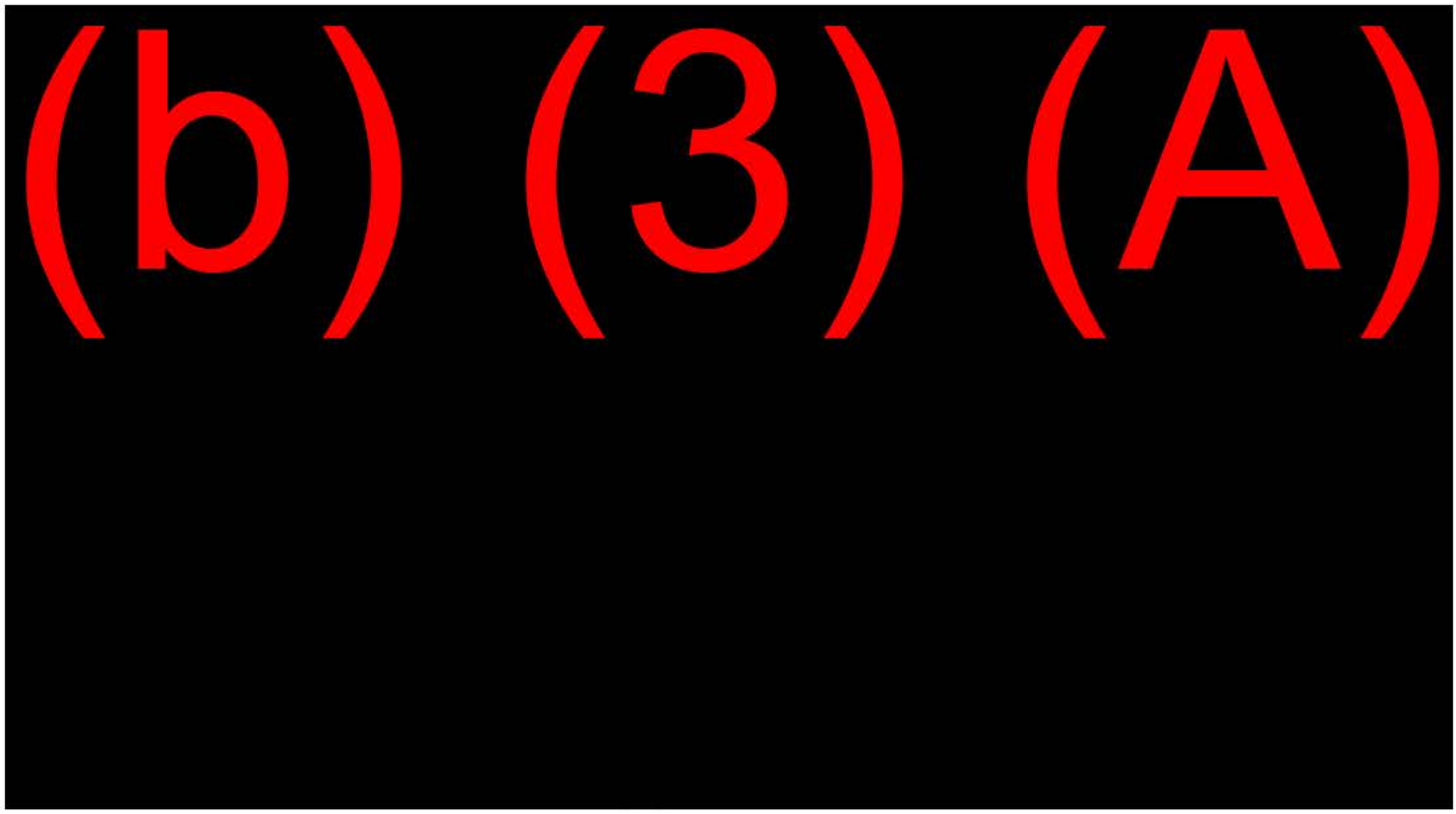
WELD INFORMATION								INSPECTION INFORMATION			
Weld ID	Number	SIZE	TYPE	JOINT	JOINT	WELDER ID	DATE	NDE TYPE	INITIALS	DATE	RESULTS
(b) (3) (A)	4	(b) (3) (A)	SW	(b) (3) (A)		(b) (6)	6/21/2023	CWI VT	(b) (6)		PASSED
								PT		6/29/2023	PASSED
	5		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/21/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	1		BW				6/30/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	2		BW				6/30/2023	CWI VT			PASSED
								RT		7/5/2023	PASSED
	3		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	4		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	5		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	1		BW				6/15/2023	CWI VT		6/15/2023	PASSED
								RT		6/30/2023	PASSED
	2		BW				6/9/2023	CWI VT			PASSED
								RT		6/12/2023	PASSED
	3		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	4		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	5		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	6		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED
	7		SW				6/22/2023	CWI VT			PASSED
								PT		6/29/2023	PASSED

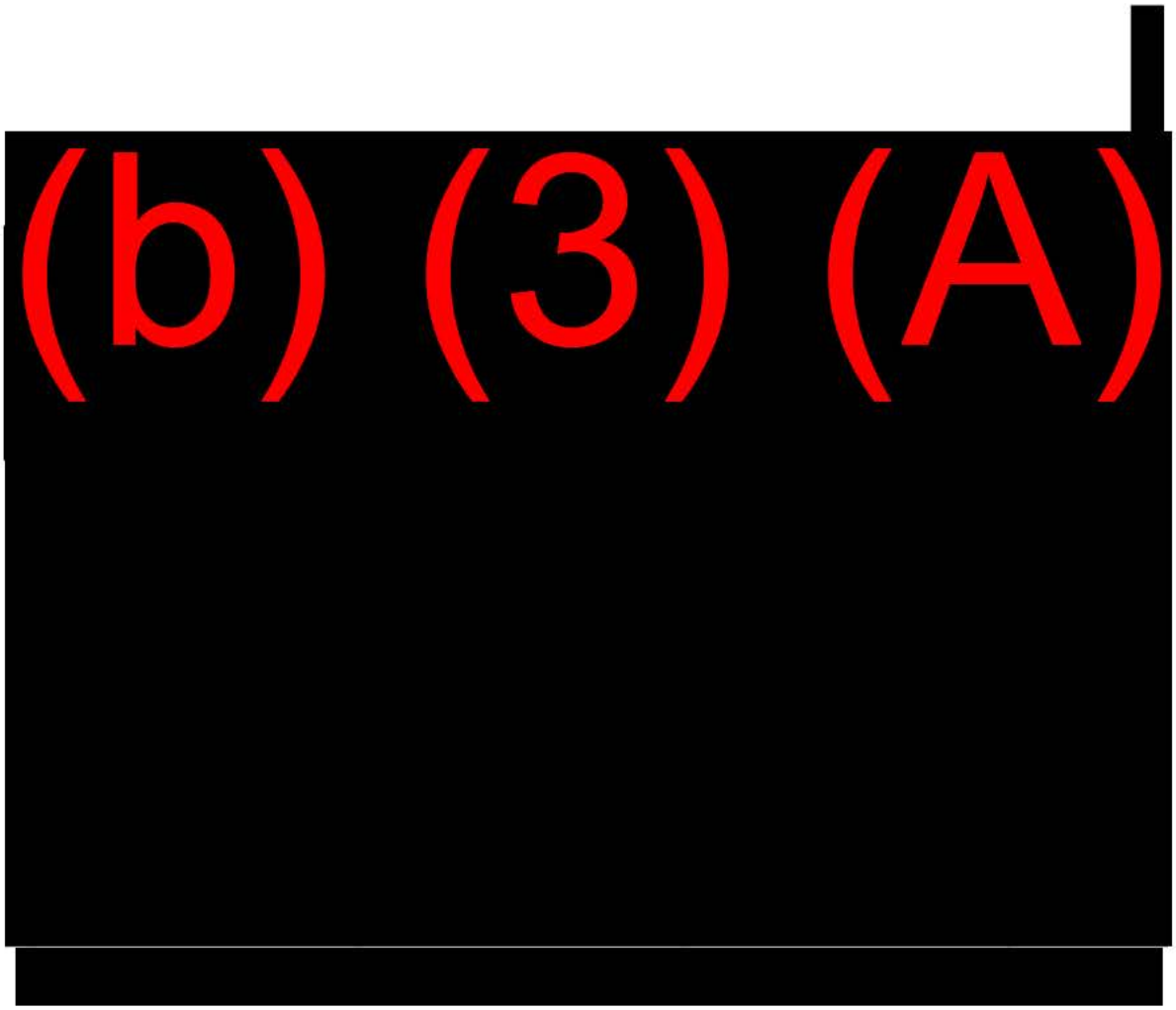

(b) (3) (A)


(b) (3) (A)


(b) (3) (A)


(b) (3) (A)


(b) (3) (A)


(b) (3) (A)

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: 7/5/23

Page 1 of 2

CUSTOMER (b) (4)	CUST JOB#	SPECIFICATION ASME V	ACCEPTANCE ASME B31.3
PROJECT Redhill Emergent piping	DWG. NO.	PROCEDURE NDT006 REV C	ACC. PROC. B31.3 REV 2015
RT SOURCE IR192 FILM AGFA D5 PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS ✓	MATERIAL CS
(b) (4)	TYPE 1B	TECHNIQUE USED 3	(b) (4)
	MATERIAL SS	EXPOSURE TIME 40 Sec	
	LOCATION F	PROCESSING [X] MANUAL [ ] AUTOMATIC	

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	R.I.	Film Artifact	REMARKS
(b) (3) (A)	1-2	.020	✓												(b) (3) (A)
	2-3	/	✓												
	3-4	/	✓												
	4-1		✓												
	0	.020	✓												
	60	/	✓												
	120	/	✓												
	1-2	.020	✓												
	2-3	/	✓												
	3-4	/	✓												
	4-1	/	✓												

1. Single Wall — Panoramic
2. Single Wall — Offset
3. Double Wall
4. Double Wall 0/90 — Elliptical
5. Plate
6. Other

(b) (6)

II — SNT-TC-1A Level

7/5/23 — Date of Inspection

Customer

(b) (4)

RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Page 2 of 2

WELD #	VIEW #	GEOMETRIC UNSHARPNESS "UG"	ACCEPT	REJECT	Porosity	Slag Inclusions	Cracks	Lack of Fusion	Lack of Penet.	Undercut	Burn Thru	Suck Back	T. I.	Film Artifact	REMARKS
(b) (3) (A)	0	.020	X												(b) (3) (A)
	60		X												
	120		X												
	1-2	.020	X												
	2-3		X												
	3-4		X												
	4-1		X												
	0	.020	X												
	60		X												
	120		X												
	1-2	.020	X												
	2-3		X												
	3-4		X		/										
	4-1		X												
	0	.020	X												
	60		X												
	120		X												

(b) (6)

II

NDT Level

7/5/23

Date of Inspection

(b) (3) (A)

LIQUID PENETRANT EXAMINATION RECORD

Client: (b) (4)	Location: Red Hill	Page 1 of 3
P.O. No.: (b) (4)	Job No.: 23-034	
	Code: ASME B31.3	

ITEM (b) (3) (A) socket welds

MATERIAL		PENETRANT MATERIAL				TECHNIQUE
TYPE: CS FW		BRAND	DESIGNATION	PO#	BATCH #	Preclean Drying Time: 5 MIN
Surface Condition: ☐ As Welded ☐ Ground ☐ Other Weld Prep ☒ New weld	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application: Brush
	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min
	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N/A
	Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15 Min
Temperature: X 60° F – 125° F Other ____		Illumination: ☒White		FC 150	(b) (4)	l # UV Meter ☐ N/A ☐

(b) (3) (A)	Accept	Reject	Sketch/Notes
socket weld	☒	☐	No indications noted at time of inspection.
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	

Performed By (b) (6) evel III Date: 6/29/2023

Reviewed By: Date:

(b) (4)

NT EXAMINATION RECORD

Location: Red Hill | Page 2 of 3
Job No.: 23-034
Code: ASME B31.3

MATERIAL		PENETRANT MATERIAL				TECHNIQUE
TYPE: CS FW		BRAND	DESIGNATION	PO#	BATCH #	Preclean Drying Time: 5 MIN
Surface Condition: ☐ As Welded ☐ Ground ☐ Other Weld Prep ☒ New weld	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application: Brush
	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min
	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N/A
	Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15 Min
Temperature: X 60° F – 125° F Other ____		Illumination: ☒White		FC 150	(b) (4)	ntrol # UV Meter ☐ N/A ☐

Item(s)	Accept	Reject	Sketch/Notes
(b) (3) (A) socket weld	☒	☐	No indications noted at time of inspection.
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
cket weld	☒	☐	
cket weld	☒	☐	
cket weld	☒	☐	
cket weld	☒	☐	
cket weld	☒	☐	

Performed By (b) (6) Level III Date: 6/29/2023

Reviewed By: Date:

(b) (4)

ETRANT EXAMINATION RECORD

	Location: Red Hill	Page 1 of 1
	Job No.: 23-034	
	Code: ASME B31.3	

MATERIAL		PENETRANT MATERIAL				TECHNIQUE
TYPE: CS FW		BRAND	DESIGNATION	PO#	BATCH #	Preclean Drying Time: 5 MIN
Surface Condition: ☐ As Welded ☐ Ground ☐ Other Weld Prep ☒ New weld	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application: Brush
	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min
	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N/A
	Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15 Min
Temperature: X 60° F – 125° F Other ____		Illumination: ☒White		FC 150	(b) (4)	UV Meter ☐ N/A ☐

Item(s)	Accept	Reject	Sketch/Notes
(b) (3) (A) socket weld	☒	☐	No indications noted at time of inspection.
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
socket weld	☒	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Performed By (b) (6) Level III Date: 6/29/2023

Reviewed By: Date:

[redacted]

HYDROSTATIC TEST FORM

CLIENT: [redacted]

SYSTEM: F-24

Project Name: **Red Hill Emergent Pipeline**

System Description: [redacted]

Starting point

Connection Point

Ending point

PSI Req.: [redacted] MIN

Time Req.: 4 hours

Start of Test Period: Time: 14:48 hrs Date: 8/2/2023

End of Test Period: Time: 18:48 hrs Date: 8/2/2023

No.	Time	PSI READING	Remarks
1	14:48	[redacted]	Pic taken; no visual leaks detected during test
2	15:03		no visual leaks detected during test
3	15:18		no visual leaks detected during test
4	15:33		Pic taken; no visual leaks detected during test
5	15:48		no visual leaks detected during test
6	16:03		no visual leaks detected during test
7	16:18		no visual leaks detected during test
8	16:33		Pic taken; no visual leaks detected during test
9	16:48		no visual leaks detected during test
10	17:03		no visual leaks detected during test
11	17:18		no visual leaks detected during test
12	17:33		Pic taken; no visual leaks detected during test
13	17:48		no visual leaks detected during test
14	18:03		no visual leaks detected during test
15	18:18		no visual leaks detected during test
16	18:33		no visual leaks detected during test
17	18:48		End test, picture taken, no visual leaks

PSI Gauge Manufacturer: Ashcroft 0-600

Test Witness Client: [redacted]

Test Witness [redacted]ep. [redacted]

(b) (4)

Certificate of Calibration

(b) (4)

Ashcroft	0-600 PSI
Manufacturer	**Model**
32488	Pressure Gauge
Serial Number	**Description**
02/28/2023	182,039
Calibration Date	**Test Number**
02/28/2024	
Recalibration Due	**Asset Number**
(b) (4)	23 °C / 43 % RH
Instrument Accuracy / Procedure	**Temperature** / **Humidity**

(b) (4)

Calibration Standards Used:

Equip #	Manufacturer	Description	Model	Serial	Date Calibrated	Date Due
(b) (4)		Standards on File			01/01/2023	01/01/2024

In Tolerance	**Certified B** (b) (6)
Condition Received	
In Tolerance	**QA Inspect**
Condition Returned	

(b) (4)

Relief - Quality Validation Report

ENSURING A FREE AND OPEN INDO-PACIFIC

NO.	Validation Complete	Date	Location

Testing & Inspection Dates

ENSURING A FREE AND OPEN INDO-PACIFIC

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