

# **Work Order Details**

## SP226334: UNIT 3 DA #4 FWH ANNUAL OUTAGE INSPECTION

UNIT 3 DA #4 FWH ANNUAL OUTAGE INSPECTION

Asset: SP5302 Unit

Location:

Unit 03 Condensate System Deaerator Storage Tank

SP03.WA.CD.D. Unit 03 Condensate System Deaerator Storage Tank

Model:

**Product Version:** 

Sched Start:	4/22/2024
Sched Finish:	4/22/2024
Target Start:	3/1/2024
Target Finish:	3/1/2024
Actual Start:	2/6/2024
Actual Finish:	5/13/2024
Report Date:	12/28/2023
Craft:	M3M4
Unit:	3
Outage:	Outage

Business Unit:	SPUR-Spurlock Station
Priority:	3 (Low - Routine)
Work Type:	PM-Preventative Maint
Status:	WCMP
Parent:	
Failure Class:	
Problem Code:	
PM Number:	PM2564
GL Account:	513000~SP03~400~3000~03700~BASE~00~00000~00000
UNID:	

Job Plan:	M3M4.O.021
Supervisor:	
Lead:	02194
Vendor:	
Reported by:	03890
Reported by:	Kathy Lippert
Defect Tag:	NO
Commodity:	
Comdty Grp:	
Classification:	

Tasks									
	Task				Sched		Est	Actual	Actual
WO Task	ID	Craft	Description	Status	Start	Sched Finish	Hours	Start	Finish
SP226335	10	M3M4	LOTO	WСМР	4/22/24	4/22/24	1		
Instructions	·								
SP226336	20	M3M4	OPEN DA & STORAGE TANK ACCESS DOORS	WCMP	4/22/24	4/22/24	2		
Instructions									
SP226337	30	МЗМ4	INSPECT SPRAY NOZZLES	WCMP	4/22/24	4/22/24	2		
Instructions									
SP226338	40	мзм4	INSPECT BASKETS	WCMP	4/22/24	4/22/24	2		

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## SP226334: UNIT 3 DA #4 FWH ANNUAL OUTAGE INSPECTION

Tasks								
WO Task	Task ID	Craft	Description	Status	Sched Start	Sched Finish	Est Actua Hours Star	
Instructions	:							
SP226339	50	МЗМ4	INSPECT DA & STORAGE TANK INTERIOR SHELL FOR EROSION/COROSION	WCMP	4/22/24	4/22/24	2	
Instructions	······································							
SP226340	60	M3M4	CLOSE DA & STORAGE TANK ACCESS DOORS	WCMP	4/22/24	4/22/24	2	

#### Instructions:

Planned Labor									
Task ID	Craft	Skill Level	Labor	Vendor	Contract	Qty	Hours	Rate	Line Cost
10	M3M4					1	01:00		
20	M3M4					1	02:00		
30	M3M4					2	02:00		
40	M3M4					2	02:00		
50	M3M4					2	02:00		
60	M3M4					1	02:00		
							Total D	lannod Lahori	

Total Planned Labor:

Task ID	Craft	Skill Level	Labor	Vendor	<b>Contract Num</b>	Regular Hours	Premium Hour
20	M3M4		02194			02:00	01:0
20	ALL		SP_TL_RG			00:00	00:0
20	ALL		SP_TL_OT			00:00	00:0
20	M1M2		03000			00:00	02:0
20	M3M4		02513			02:00	01:0
	M3M4		02301			08:00	02:0
	M1M2		03006			08:00	02:0
	M3M4		02301			08:00	02:0
	ALL		SP_TL_OT			00:00	00:0
	M1M2		02496			08:00	02:0

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Actual Eubol							
Task ID	Craft	Skill Level	Labor	Vendor Contra	act Num	Regular Hours	<b>Premium Hours</b>
	ALL		SP_TL_RG			00:00	00:00
Actual Materials							
Task ID It	em Description			Binnum	Qty	Unit Cost	Line Cost
191309101	Gasket, Spiralwound,	316SS, Flexicarb, 24", 150	#	SWHSA-GR-05-00	4	71.56	286.23
191309101	Gasket, Spiralwound,	316SS, Flexicarb, 24", 150	#	SWHSA-GR-05-00	1	71.56	71.56
					Total	Actual Materials	357 79

Log					
Date	Class	Created By	Description		
05/13/2024 10:14:52 AM	WORKORDER	02301 Cody Dicken			

Inspection completed by Jordan S. Repairs made by Kendall and Hutch. Replaced cotter pins in small manway hinges, tightened loose bolting. Replaced door gaskets. Kendall, Hutch

Report EK\_woprint.rptdesign

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CFB Unit DA & DA Storage Tank

Page 1 of

Date: 4/16/2024 Inspected by: EKPC (J.Schaeffer) Unit: 3 Item: 1

Component Inspected: U3 Deaerator

**Condition Assessment:** Inside the tray enclosure, the 3<sup>rd</sup> distributing trough from the RHS/East end had a loose shim on the North side. Note that the bolt was not loose by hand but the shim was loose.

**Recommendations:** Try to see if bolt will tighten, which could tighten up the shim between the bolt head and the distributing trough. (15/16" head)

Priority: P2

**Risk if NOT Performed:** 

**Cost Estimates:** 

**Action Taken:** 

**Photos:** 



Date: 4/16/2024 Inspected by: EKPC (J.Schaeffer) Unit: 3 Item: 2

Component Inspected: U3 Deaerator

**Condition Assessment:** The RHS/East door to the tray enclosure had the North cotter pin damaged.

**Recommendations:** Replace cotter pin. Appears to be ~1 ¼"-1 ½" LG and maybe <1/8" DIA.

Priority: P2

**Risk if NOT Performed:** 

**Cost Estimates:** 

**Action Taken:** 





DA & DA Storage Tank

Page 1 of

Date: 4/16/2024 Inspected by: EKPC (J.Schaeffer) Unit: 3 Item: 3

Component Inspected: U3 Deaerator

**Condition Assessment:** The North half of the tray enclosure had an old cutout with two cracked welds on the bottom part of the cutout. This was on the cutout closest to the LHS/West end of the enclosure.

**Recommendations:** Time permitting this outage only, grind out entire failed welds and re-weld.

Otherwise, this can wait until Spring 2025. Tray enclosure is Stainless Steel.

Priority: P3

**CFB Unit** 

**Risk if NOT Performed:** 

**Cost Estimates:** 

**Action Taken:** 





CFB Unit DA & DA Storage Tank

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Date: 4/16/2024Inspected by: EKPC (J.Schaeffer)Unit: 3Item: 4

Component Inspected: U3 Deaerator

**Condition Assessment:** The LHS/West end of the shell had steam erosion near the South-most safety relief valve nozzle. The erosion was on the weld itself, and extended into the shell side of the weld. Note that the weld line also had 3 indications of porosity. The lowest UT reading on the shell side of the weld was  $0.440^{\circ\prime}$ , and the lowest UT reading in the weld was  $0.507^{\circ\prime}$ . Note that this eroded area pertained to ~1 ½"x6" area. (Heater Shell and Head =  $0.500^{\circ\prime}$  NWT, SA516-70)

# Recommendations: Plan for 2025:

- 1. Grind out indications in the weld, to ensure no further indications are discovered.
- 2. Pad weld over entire affected area, including original shell/head weld line.

Priority: P3

# **Risk if NOT Performed:**

# **Cost Estimates:**

# **Action Taken:**







CFB Unit DA & DA Storage Tank

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Date: 4/16/2024Inspected by: EKPC (J.Schaeffer)Unit: 3Item: 5

Component Inspected: U3 Deaerator

**Condition Assessment:** The LHS/West end of the DA head still had signs of steam erosion. The area between the extraction steam inlet nozzle and the manway was 0.459" low. (0.500" NWT = 92% remain)

**Recommendations:** Continue to monitor every year.

**Priority: INFO** 

**Risk if NOT Performed:** 

**Cost Estimates:** 

**Action Taken:** 



**CFB Unit** DA & DA Storage Tank Page 1 of

Date: 4/16/2024 Inspected by: EKPC (J.Schaeffer) Unit: 2 Item: 6

Component Inspected: U3 Deaerator

Condition Assessment: The top South corner of the tray enclosure, located on LHS/West end, still had indications from expansion at the corner of this tray enclosure attachment to the heater shell. Still a 1/2" long crack (1/32" open) at the corner. Note that these pictures are from 2022 and 2024, as nothing appears to have worsened from 2022.

**Recommendations:** Monitor in 2025, and repair as necessary.

**Priority: INFO** 

**Risk if NOT Performed:** 

**Cost Estimates:** 

Action Taken: NONE. Monitor.



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Date: 4/16/2024Inspected by: EKPC (J.Schaeffer)Unit: 2Item: 7

Component Inspected: U3 Deaerator Storage Tank

**Condition Assessment:** No major issues were found in the DA Storage Tank. It appears that the Southmost BFP recirc. Nozzle has increased flow over the other. The washing on the inside of the tank, closest to the nozzles, was increased from this nozzle. Note that it also had a slightly larger impact on the opposite side of the tank head (East end) as well.

It appears the center-most area appears to be getting the most wear, as indicated in the 2024 picture.

**Recommendations:** 2025 – Plan to put a ladder in the DA storage tank for UT reading on this area.

**Priority: INFO** 

**Risk if NOT Performed:** 

Cost Estimates:
Action Taken: N/A





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**CFB Unit** 

DA & DA Storage Tank

Date: 4/16/2024 Inspected by: EKPC (J.Schaeffer) Unit: 3 Item: 8

Component Inspected: U3 Deaerator

Condition Assessment: The LHS/West manway nozzle had a small porosity spot at the 2:00 position

(looking outside).

**Recommendations:** Continue to monitor.

Priority: INFO

**Risk if NOT Performed:** 

**Cost Estimates:** 

**Action Taken:** 



