Process Control & Integration Technology

FHS, TCS, LMS, Hydrocarbon Facilities and UPS Maintenance

MONTHLY REPORT

JANUARY 2025

Airport Company South Africa

O.R. Tambo International Airport

Created by:
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Rockwell Automation

HIMA

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Directors: UP Brahim, JF Snyman, SK Zulu, CJ Kistensamy

1 OVERVIEW

(I urgently require feedback from M&E if we should proceed with the AIA 3 monthly inspection, this is now highly overdue. Please give me feedback or go-ahead for the inspection, this forms part of the EI regulation testing for pipeline integrity.) – UPDATE: AIA inspection completed on the 18th of November 2024. Next inspection due Feb 2024.

We assisted skytanking for 3 days, in the procurement of gaskets, repairs to the D2 DBB and the re-instatement of a new DBB valve that Wednesday night. Everything looks okay. I recommend skytanking re-torques the studs to ensure proper bolt torque after gasket compression, this is if they have not done it already.

TCS

TCS is being run by the depot, mostly the operator Pitso. Please make haste with the approval of the quote submitted to replace the broken fibre at Delta so we can perform the test on more sections of the pipeline.

Next TCS calibration due. We are arranging with Hansa Consult in Germany for the calibration, but the fibre cable replacement outstanding is holding the project up. Update: Contractor has started replacing the fibre, so far they have replaced 600m and expect to finish Friday the 31st of Jan. After this we can evaluate the AD Converters and see how many we have to order.

Level Monitoring

No Issues to report.
As per the below screenshot all the level monitoring is up and functioning.

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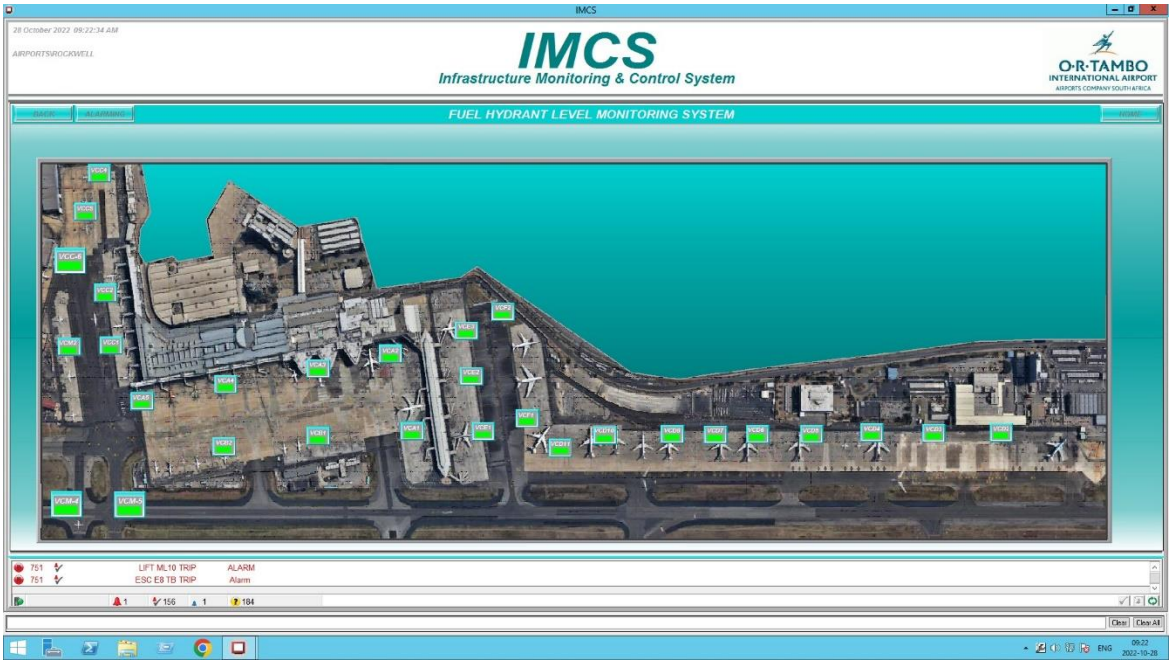

UPS

The 6 UPSs are in working condition and has been inspected and repaired as per the 6 monthly inspection by the OEM in June 2024.

Hydrocarbon Facilities

- The 3 x hydrocarbon sensors that were refurbished in USA was reinstalled and working 100%. I strongly recommend we do the remaining 3 asap to prevent issues and standing time in the future. Please advise available budget, I have received pricing this week for the refurbishment of 3 more sensors and would like to have one or all three refurbed asap.
- On the other sensors the next calibration is due Feb 2025.
- Hydrocarbon sensors and panels were cleaned and inspected weekly and all pm's submitted.
- I strongly recommend we refurbish the other 3 sensors in USA to have a back-up and a proper running system with spare changeouts in case of failure, I will be issuing a quote for this. Please provide feedback on available budget.

ESD SYSTEM

- No Issues to report.
- Golf ESD system still offline due the the siemens IO rack issues. We have quoted to incorporate this to the HIMA. Awaiting feedback.

- Power supply issue in main sat, has been repaired. Comms to VCA5 and VCM1 restored.

VALVE CHAMBERS

- All valve chambers have been cleaned and inspected the past month.
- Paintwork in 90% of these chambers need to be re-done. Corrosion is present in all chambers. **TENDER HAS BEEN AWARDED TO ANOTHER COMPANY, I HAVE OFFERED OUR PROFFESIONAL SERVICES TO THEM AND HAVE ALREADY TAKEN THEM FOR A SITE VISIT AND EXPLAINED THE OPERATIONAL DIFFICULTIES ETC.**
- VCD6 valve replacement quotation has been completed and submitted. I have included NDT on the bellow for the annual bellow inspection in the costing. **AS PER ELDON HAMILTON THIS WILL FORM PART OF THE CHAMBER REFURB TENDER.**
- A quotation to assess the electrical panels to issue a C.O.C. has been submitted. Awaiting PO**. (FEEDBACK RECEIVED FROM E HAMILTON IS THAT ACSA ELECTRICAL WILL UNDERTAKE THIS PROJECT THEMSELVES)(CHAMBER REFURB PROJECT TO REPLACE ALL ELECTRICAL LIGHTS, BOXES, GLANDS, EARTHING AND ACTUATORS)**
- VCA5 gaskets needs to be replaced to conform to standards, also the DBB valves needs to be refurbished/replaced. These valves are known to be bypassing some fluid when closed, this affects the TCS system performance. **MUST BE RESOLVED WITH CHAMBER REFURB PROJECT**
- Cost estimation on valve chamber refurbishment has been submitted to you on 25/11/22. **TENDER AWARDED NOT TO PCIT. Sign over of responsibility should be arranged between maintenance and projects for these chambers. Nhlanhla please advise.**

HYDRANT PIT VALVES/BOXES

- As per OEM recommendations Carter pit valves should be refurbished every 5 years, we are way past this. We have completed 10 Refurbs in total from 2020. In total we have around 180 active valves. I have put together a quotation for the refurbishment of 10 x Carter valves, I believe we should compare the pricing with replacing the Carter valves with CLA-VAL pit valves. PC&IT cannot be held liable for internal seal breakdowns of these valves until the pit valves has been refurbished, this is an ongoing issue, and these valves were due for refurbishment years ago. **Tender submitted. Tender awarded awaiting PO. PO received and valves ordered. Expected deliver date is end March 2025.**
- Painting on the concrete surface around the hydrant pit boxes and numbering is deteriorating and needs to be re-done. Previously ACSA surface maintenance took care of this, I am certain we can also put a team together to tackle this task. Please let me know if we are allowed to this instead of surface maintenance, if that is the case I can put costing together.
- Skytanking is still battling to keep the pit boxes clean and free of slops, I am afraid this will worsen significantly in the coming rain season. It seems they are short staffed; I will appreciate you communicating the issue with them, and for them supplying a resolve

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for the problems foreseen in the near future. **Ongoing issue, Skytanking cannot keep the pits clean and dry, we are called in to assist daily. I recommend ACSA invest in a hydrant Pit cleaning truck as used by ST and appoint staff to clean the pit boxes every day.**

- Quotes for pit valve replacement, chamber refurbishment, PLC Upgrade, Golf cleaning, Golf plc replacement and paintwork has been issued again in January 2023. Awaiting PO/RFQ. **GOLF LOOP STILL CLOSED, CLEANING SHOULD ENSUE WHILE CONTRACTOR REFURBISHING CHAMBERS ARE WORKING IN VCD1.**

2 PREVENTATIVE MAINTENANCE

UPS 6 monthly maintenance was completed in June 2024. Next service December 2024. This falls within RFQ, please advise way forward. UPS service was completed, the report will be sent to you in this week.

3 SPARES

.
12 X AD Converters for TCS

4 REPORTS

i) Availability
   (1) TCS
   The TCS System was available 100% (excluding damaged VCD1 & VCD9 Chambers, which are not in operation due to fibre /comms issue. Quote for repair has been submitted awaiting feedback.)

   (2) Level Monitoring
   There are 28 level monitoring chambers on the new Phoenix equipment. 28/28 chambers are working, which equates to 100 % availability.

ii) Top 5 Failures
   (1) TCS
   Most times the TCS does not run is due to operator issues and comms from AXA switches and damaged fibre at Delta.
   (2) Level Monitoring
   None
   (3) Hydrant pit valves
   none
   (4) ESD system
   I have ordered a new esd to sample as per Nhlanhla request, it will be on site Monday 27 Jan for ACSA review.

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5 TCS Reports

Tightness Control System (TCS) Report				
VCM1	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	x	x	
PT1	Pressure Sensor 1	√	√	
PT2	Pressure Sensor 2	√	√	
Level H	Level Tuning Fork	√	√	

VCC3	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	x	x	
PT1	Pressure Sensor 1	√	√	
PT2	Pressure Sensor 2	√	√	
Level H	Level Tuning Fork	x	x	

VCM3	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	X	X	
PT1	Pressure Sensor 1	√	√	
PT2	Pressure Sensor 2	√	√	
Level H	Level Tuning Fork	√	√	

VCD9	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	X	X	
PT1	Pressure Sensor 1	X	√	
PT2	Pressure Sensor 2	X	√	
Level H	Level Tuning Fork	X	√	

VCD1	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	x	x	
PT1	Pressure Sensor 1	x	√	
PT2	Pressure Sensor 2	x	√	
Level H	Level Tuning Fork	x	√	

VCE1	Description	Communication	TCS Status	Comments
TT1	Temperature Sensor 1	√	√	
PT1	Pressure Sensor 1	√	√	
PT2	Pressure Sensor 2	√	√	
Level H	Level Tuning Fork	√	√	

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6 *Level Monitoring Report*

Level Monitoring Stations		
VCE2	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCF1	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCD11	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCF2	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCD8	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCA4	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCA3	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCA2	**SCADA Status**	**Comments**
Comms Fail	**√**	
Level Hi	**√**	

VCB2	**SCADA Status**	**Comments**
Comms Fail	**√**	

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Level Hi	**√**	

VCB1	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCA5	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCC1	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCC2	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCC4	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCC5	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCA1	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCC6	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

VCE1	SCADA Status	Comments
Comms Fail	**√**	
Level Hi	**√**	

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VCD2	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD3	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD5	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD6	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD7	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD10	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

VCD4	SCADA Status	Comments
Comms Fail	√	
Level Hi	√	

7 UPS

UPS

Depot	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

MainSat	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

CharlieSat	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

PierSat	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

EchoSat	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

SATF	SCADA Status	Comments
Mains Failure	√	
Comms Fail	√	
Status	√	

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8 Hydrocarbon

Hydrocarbon		
Golf	**Status**	**Comments**
Datalogger	**√**	
Comms Fail	**√**	
Status	**√**	

SW04	**Status**	**Comments**
Mains Failure	**√**	
Comms Fail	**√**	
Status	**√**	

SW07	**Status**	**Comments**
Mains Failure	**√**	
Comms Fail	**√**	
Status	**√**	

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9 Valve chambers and Actuators

Valve No	Check Gearbox	Check Actuator	Check Condition of valve	Check all bolts are tight	Check any fuel leaks	Check leaks on body bleed valve	Check leaks on seats	Chambers clean
VCM3	OK	OK	OK	OK	OK	OK	OK	OK
VCC6	OK	N/A	OK	OK	OK	OK	OK	OK
VCC5	OK	OK	OK	OK	OK	OK	OK	OK
VCC4	OK	N/A	OK	OK	OK	OK	OK	OK
VCC3	OK	OK	OK	OK	OK	OK	OK	OK
VCC2	OK	N/A	OK	OK	OK	OK	OK	OK
VCC1	OK	N/A	OK	OK	OK	OK	OK	OK
VCA5 VADI A1	OK	OK	OK	X Wrong gaskets	OK	OK	OK	OK
VCA5 VAD3 C1	OK	OK	OK	X Wrong Gaskets	OK	OK	OK	OK
VCA4	OK	N/A	OK	OK	OK	OK	OK	OK
VCA3	OK	N/A	OK	OK	OK	OK	OK	OK
VCA0	No valves in place, straight through pipe.							
VCA2	OK	OK	OK	OK	OK	OK	OK	OK
VCA1	OK	OK	OK	OK	OK	OK	OK	OK
VCM2	Pipeline to depot locked-out and drained. Blanked in VCM2							
VCM1	OK	OK	OK	OK	OK	OK	OK	OK
VCB2	OK	N/A	OK	OK	OK	OK	OK	OK
VCB1	OK	N/A	OK	OK	OK	OK	OK	OK
VCB0	No valves in place, straight through pipe.							
VCE3(104)	OK	OK	OK	OK	OK	OK	OK	OK
VCE3(105)	OK	OK	OK	OK	OK	OK	OK	OK
VCE2	OK	N/A	OK	OK	OK	OK	OK	OK
VCE1(106)	OK	OK	OK	OK	OK	OK	OK	OK
VCE1(107)	OK	OK	OK	OK	OK	OK	OK	OK
VCF2	OK	N/A	OK	OK	OK	OK	OK	OK

VCF1	OK	OK	OK	OK	OK	OK	OK	OK
VCD0	No valves in place, straight through pipe.							
VCD11	OK	N/A	OK	OK	OK	OK	OK	OK
VCD10	OK	N/A	OK	OK	OK	OK	OK	OK
VCD9	OK	OK	OK	OK	OK	OK	OK	OK
VCD8	OK	OK	OK	OK	OK	OK	OK	OK
VCD7	OK	N/A	OK	OK	OK	OK	OK	OK
VCD6	X	OK	X	OK	OK	OK	OK	OK
VCD5	OK	N/A	OK	OK	OK	OK	OK	OK
VCD4	OK	N/A	OK	OK	OK	OK	OK	OK
VCD3	OK	N/A	OK	OK	OK	OK	OK	OK
VCD2	OK	N/A	OK	OK	OK	OK	OK	OK
VCD1	OK	OK	OK	OK	OK	OK	OK	OK
VCD1 AO1	LOCKED OUT							N/A
VCD1 AO2	LOCKED OUT							N/A

10 ESD Testing

ITEM	TEST	Zone	Comply (✓) / Non-comply (x)	SIGNED
1	**Place Delta Satellite Station on override**			
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	
	Place Echo Satellite Station on override		**No Override function on VCE3 - 105**	
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	

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	Place Main Satellite Station on override			
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	
	Place Charlie Satellite Station on override (Pier)			
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	
	Place Charlie Satellite Station at parking bay no. 18 on override			
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	
	Place Fuel Depot on override			
	Check for noisy relays		√	
	Clean out control panels		√	
	Check zone bypass isolators		√	
	Check that no MCB's are tripped		√	
	Check for any visible damaged connections, burned out relays, etc.		√	
ITEM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Select Golf Apron (LOCKED OUT)			
	Confirm as above for ESD EDG 1		x	
	Confirm as above for ESD EDG 2		x	
	Confirm as above for ESD EDG 3		x	
	Confirm as above for ESD EDG 4		x	
	Confirm as above for ESD EDG 5		x	
	Confirm as above for ESD EDG 6		x	
	Confirm as above for ESD EDG 7		x	

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2	**Check Valve Chamber VCD1 VALVE 1**		CLOSED	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		X	
	Light illuminated		X	
	Confirm open & Green light illuminated on Scada		X	
	Activate Valve to "close" on Scada		X	
	Confirm Valve closing at Valve chamber		X	
	Confirm moving & Blue light flashing on Scada		X	
	Confirm Valve "closed" at Valve chamber		X	
	Confirm closed and Red light flashes on Scada		X	
	Activate Valve to "open" on Scada		X	
	Confirm Valve opening at Valve chamber		X	
	Confirm moving and Blue light flashing on Scada		X	
	Confirm Valve "open" at Valve chamber		X	
	Confirm "open" and Green light illuminated on Scada		X	
	Manual override functioning (flashes)		X	
3	**Check Valve Chamber VCD1 VALVE 2**		CLOSED	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		X	
	Light illuminated		X	
	Confirm open & Green light illuminated on Scada		X	
	Activate Valve to "close" on Scada		X	
	Confirm Valve closing at Valve chamber		X	
	Confirm moving & Blue light flashing on Scada		X	
	Confirm Valve "closed" at Valve chamber		X	
	Confirm closed and Red light flashes on Scada		X	
	Activate Valve to "open" on Scada		X	
	Confirm Valve opening at Valve chamber		X	
	Confirm moving and Blue light flashing on Scada		X	
	Confirm Valve "open" at Valve chamber		X	
	Confirm "open" and Green light illuminated on Scada		X	
	Manual override functioning (flashes)		X	
	Select Delta Apron			
4	**Confirm ESD function for zone**	**ED1-3**		
	Confirm as above for ESD ED1		√	

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	Confirm as above for ESD ED2		√	
	Confirm as above for ESD ED3		√	
5	**Confirm ESD function for zone**	**ED4-6**		
	Confirm as above for ESD ED4		√	
	Confirm as above for ESD ED5		√	
	Confirm as above for ESD ED6		√	
6	**Confirm ESD function for zone**	**ED7-8**		
	Confirm as above for ESD ED7		√	
	Confirm as above for ESD ED8		√	
7	**Confirm ESD function for zone**	**ED9-11**		
	Confirm as above for ESD ED9		√	
	Confirm as above for ESD ED10		√	
	Confirm as above for ESD ED11		√	
8	**Confirm ESD function for zone**	**ED12-13**		
	Confirm as above for ESD ED12		√	
9	**Check Valve Chamber VCD6 status (VCD6 – VA01)**		VALVE STUCK	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		X	
	Light illuminated		X	
	Confirm open & Green light illuminated on Scada		X	
	Activate Valve to "close" on Scada		X	
	Confirm Valve closing at Valve chamber		X	
	Confirm moving & Blue light flashing on Scada		X	
	Confirm Valve "closed" at Valve chamber		X	
	Confirm closed and Red light flashes on Scada		X	
	Activate Valve to "open" on Scada		X	
	Confirm Valve opening at Valve chamber		X	
	Confirm moving and Blue light flashing on Scada		X	
	Confirm Valve "open" at Valve chamber		X	
	Confirm "open" and Green light illuminated on Scada		X	
	Manual override functioning (flashes)		X	
	Confirm as above for ESD ED13		√	
10	**Confirm ESD function for zone**	**ED14-16**		
	Confirm as above for ESD ED14		√	
	Confirm as above for ESD ED15		√	

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	Confirm as above for ESD ED16		√	
11	**Confirm ESD function for zone**	**ED17**		
	Confirm as above for ESD ED17		√	
	Select Delta Apron			
12	**Check Valve Chamber VCD8 valve 109**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
ITEM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
	Select Delta Apron			
13	**Confirm ESD function for zone**	**ED18**		
	Confirm as above for ESD ED18		√	
14	**Check Valve Chamber VCD9 (VA03) status**		√	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	

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	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
15	**Confirm ESD function for zone**	**ED19**		
	Confirm as above for ESD ED19		√	
16	**Confirm ESD function for zone**	**ED20**		
	Confirm as above for ESD ED20		√	
17	**Confirm ESD function for zone**	**ED21**		
	Confirm as above for ESD ED21		√	
	Select Echo Apron			
18	**Check Valve Chamber VCF1 Valve 108**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
ITEM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
19	**Confirm ESD function for zone**	**F1**	√	
20	**Confirm ESD function for zone**	**F3**	√	
21	**Confirm ESD function for zone**	**F6/5**	√	

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22	**Check Valve chamber VCE1 Valve 106**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashing on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
23	**Check Valve chamber VCE1 valve 107**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
24	**Confirm ESD function for E12 (on site 5E)**		√	
	Confirm ESD function for E9 (on site 4E)		√	

	Confirm ESD function for E6 (on site 3E)		√	
	Confirm ESD function for E3 (on site 2E)		√	
25	**Check Valve chamber VCE3 Valve 104**			
	Check condition of o-rings around the lids		√	
ITEM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light illuminated on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
26	**Check Valve chamber VCE3 Valve 105**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light illuminated on Scada		√	
	Activate Valve to "open" on Mimic		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	

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	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
27	**Confirm ESD function for E1 (on site 1E)**	**E1**	√	
	Confirm ESD function for A1-R	**A1-R**	√	
	Select Alpha Apron – VCA1 – 103 >>			
28	**Check Valve chamber VCA1 Valve 103**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
ITEM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
29	**Confirm ESD function for A1**	**A1**	√	
30	**Confirm ESD function for A2**	**A2**	√	
31	**Confirm ESD function for A3**	**A3**	√	
32	**Check Valve chamber VCA 2 – 1 Valve 101**		√	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	

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	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
	Select Alpha Apron			
33	**Confirm ESD function for A4**	**A4**	√	
34	**Confirm ESD function for A5**	**A5**	√	
35	**Confirm ESD function for A6**	**A6**	√	
36	**Confirm ESD function for A7**	**A7**	√	
37	**Confirm ESD function for A8**	**A8**	√	
38	**Confirm ESD function for A9**	**A9**	√	
39	**Confirm ESD function for A10**	**A10**	√	
40	**Confirm ESD function for A11**	**A11**	√	
41	**Confirm ESD function for A12**	**A12**	√	
42	**Confirm ESD function for A13**	**A13**	√	
43	**Check Valve chamber VCA 5 (A13/ALPHA)**		√	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
IT EM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	

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	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
	Select Charlie Apron			
44	**Check Valve chamber VCA5 (C1 / CHARLIE)**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
46	**Confirm ESD function for C1**		√	
47	**Confirm ESD function for C2**		√	
48	**Confirm ESD function for C3**		√	
49	**Confirm ESD function for C4**		√	
50	**Confirm ESD function for C5**		√	
51	**Confirm ESD function for C6**		√	
52	**Confirm ESD function for C7**		√	
53	**Confirm ESD function for C8**		√	
54	**Check Valve chamber VCC3 (Charlie)**		√	
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	

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	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
IT EM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**	**SIGNED**
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
55	**Confirm ESD function for C9**		√	
56	**Confirm ESD function for C10**		√	
57	**Confirm ESD function for C11**		√	
58	**Confirm ESD function for C13/C14**		√	
59	**Confirm ESD function for C15/C16**		√	
60	**Confirm ESD function for C17**		√	
61	**Check Valve chamber VCC5 (Charlie)**			
	Check condition of o-rings around the lids		√	
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	

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62	**Confirm ESD function for C18**		√	
63	**Confirm ESD function for C19**		√	
64	**Confirm ESD function for C20**		√	
65	**Confirm ESD function for C21**		√	
66	**Confirm ESD function for C22**		√	
67	**Confirm ESD function for C23**		√	
68	**Confirm ESD function for C24**		√	
69	**Check Valve chamber VCM3**	**VCA**		
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	
	Confirm Valve "open" at Valve chamber		√	
	Confirm "open" and Green light illuminated on Scada		√	
	Manual override functioning (flashes)		√	
	Select Bravo Apron			
70	**Check Valve chamber VCM1**	**VCM1**		
	Check all sealant at the valve chambers joints and at the pipe penetrations		√	
	Maintenance override functioning		√	
	Light illuminated		√	
	Confirm open & Green light illuminated on Scada		√	
	Activate Valve to "close" on Scada		√	
	Confirm Valve closing at Valve chamber		√	
	Confirm moving & Blue light flashing on Scada		√	
	Confirm Valve "closed" at Valve chamber		√	
	Confirm closed and Red light flashes on Scada		√	
	Activate Valve to "open" on Scada		√	
	Confirm Valve opening at Valve chamber		√	
	Confirm moving and Blue light flashing on Scada		√	

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	Confirm Valve "open" at Valve chamber		√		
	Confirm "open" and Green light illuminated on Scada		√		
	Manual override functioning (flashes)		√		
71	**Confirm ESD function for B8 (on parking bay B13 SIDE)**	**EB7 - 8**	√		
72	**Confirm ESD function for B7 (on parking bay B13 FRONT)**	**EB7 - 8**	√		
73	**Confirm ESD function for B6 (bay B10)**	**EB1 - 6**	√		
74	**Confirm ESD function for B5 (bay B9)**	**EB1 - 6**	√		
75	**Confirm ESD function for B4 (bay B8)**	**EB1 - 6**	√		
76	**Confirm ESD function for B3 (bay B5 - 6)**	**EB1 - 6**	√		
77	**Confirm ESD function for B2 (bay B3)**	**EB1 - 6**	√		
78	**Confirm ESD function for B1 (bay B1)**	**EB1 - 6**	√		
79	**Place Delta Satellite Station on Normal**		**Normal**	**Override**	
	Confirm VCD6 (E3)		√		
	Confirm VCD9 (E2)		√		
	Confirm VCF1 - Out		√		
	Confirm VCD1		√		
80	**Place Echo Satellite Station on Normal**				
	Confirm VCA2 -1 (Valve 101)		√		
	Confirm VCA1 (Valve 103)		√		
	Confirm VCF1 (Valve 108)		√		
	Confirm VCD8 (Valve 109)		√		
	Confirm VCE1 (Valve 106)		√		
	Confirm VCE1 (Valve 107)		√		
	Confirm VCE3 (Valve 104)		√		
			Normal	**Override**	
	Confirm VCE3 (Valve 105)		√		
81	**Place Main Satellite Station on Normal**				
	Confirm Alpha – VCA1		√		
	Confirm Bravo – VCB1		√		
82	**Place Charlie Satellite Station on Normal (Charlie 18)**		√		
	Confirm VCA		√		
IT EM	**TEST**	**Zone**	**Comply (✓) / Non-comply (x)**		**SIGNED**
	Confirm VC5		√		

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83	**Place Charlie Satellite Station on Normal (Pier)**				
	Confirm VC3		√		
	Confirm VCC		√		
	Select Fuel Depot				
84	**Check Valve D2**				
	Maintenance override functioning		√		
	Confirm open & Green light illuminated on Scada		√		
	Activate Valve to "close" on Scada		√		
	Confirm Valve closing at Valve chamber		√		
	Confirm moving & Blue light flashing on Scada		√		
	Confirm Valve "closed" at Valve chamber		√		
	Confirm closed and Red light flashes on Scada		√		
	Activate Valve to "open" on Scada		√		
	Confirm Valve opening at Valve chamber		√		
	Confirm moving and Blue light flashing on Scada		√		
	Confirm Valve "open" at Valve chamber		√		
	Confirm "open" and Green light illuminated on Scada		√		
	Manual override functioning (flashes)		√		
85	**Check Valve D1**		Valve locked out		
	Maintenance override functioning		x		
	Confirm open & Green light illuminated on Scada		x		
	Activate Valve to "close" on Scada		x		
	Confirm Valve closing at Valve chamber		x		
	Confirm moving & Blue light flashing on Scada		x		
	Confirm Valve "closed" at Valve chamber		x		
	Confirm closed and Red light flashes on Scada		x		
	Activate Valve to "open" on Scada		x		
	Confirm Valve opening at Valve chamber		x		
	Confirm moving and Blue light flashing on Scada		x		
	Confirm Valve "open" at Valve chamber		x		
	Confirm "open" and Green light illuminated on Scada		x		
	Manual override functioning (flashes)		x		
86	**Place Fuel Depot on Normal**		**Normal**	**Override**	
	Confirm D1		X	X	
	Confirm D2			√	

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87	**Re-Check Scada and ensure that all Valves are on "Normal" operation and "open" position**		√	

ACTIONS TO BE TAKEN

VCD6 VALVE STUCK IN OPEN POSITION, VALVE TO BE REPLACED
All actuators expect vcm3 is on non-essential supply. Spreadsheet was submitted to you.
Fibre optic at Delta currently being replaced.

11 Hydrant Pit Inspections

Inspections attached to monthly report.

12 AIA 3 Monthly Inspection

Next inspection due Feb/March 2025.

13 Storeroom

Stock count sheet for storerooms attached for your perusal.

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