VENDOR	:	**Roodhart Pump Group**
REQ. NO.	:	**307A**
ITEM NO.	:	**11-P-102-A/B & 11-P-130-A/B**
ITEM DESCRIPTION	:	**HP CARBAMATE PUMP**
PURCHASER DOC. NO.	:	**VD-1208-307A-DIG-231-3**
VENDOR DOC. NO.	:	**-**
TOTAL PAGES	:	**15**

☐ **No Comment To Vendor**

☐ **Comment as marked** manufacturing may proceed To Vendor

☐ **Major Comment as marked** manufacturing is on hold for the next rev To Vendor

☐ **Rejected,** new document with the same rev. no. To Vendor

☐ **Used as for information To Vendor**

Name : Signature : Date:	Req. No.:	Seq. No.:

PIDEC review & comments does not absolve the vendor of the responsibility for the correct design, manufacturing and operation of the equipment

DE		EXT				
Eng. Phase		**Purpose of Distribution (POD)**	**Purpose of Issue (POI)**		**Purchaser's Action**	
03	03.09.24	Issued For Approval	A.B	G.C	A.S	J.V
02	13.03.23	Issued For Approval	A.B	G.C	A.S	J.V
01	01.12.22	Issued For Approval	A.B	G.C	A.S	J.V
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Rev.	**Date**	**Description**	**Prepared by**	**Checked by**	**Approved by**	**Authorized by**

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Vendor:	EPCC Contractor :	HENGAM FERTILIZER PROJECT	Owner:	MC:
Job No.	Project No. : 1208	Cause and Effect Diagram for P-102 AB and P-130AB Doc. No.: VD-1208-307A-DIG-231 Rev. : 03		

Sheet No.	Internal Issue	Change Index During Formal Issues						Reason of Latest Change
		First Issue	Second Issue	Third Issue	Fourth Issue	Fifth Issue	Sixth Issue	
	Rev. 0A	Rev.00	Rev.01	Rev.02	Rev.03	Rev.04	Rev.05	
1		X	X	X	X			
2		X	X	X	X			
3		X	X	X	X			
4		X	X	X	X			
5		X	X	X	X			
6		X	X		X			
7		X	X	X	X			
8		X	X		X			
9		X	X	X	X			
10		X	X	X	X			
11		X	X		X			
12		X	X		X			
13			X					
14			X					
15			X					

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VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 03 — Page 4 of 15		

I-10215A (Start Commands For 11-P-102A & 11-P-130A)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102A 11-P-130A	1	11-PT-10282A(PAH-10282A)	VD-1208-307A-PID-211-Sh6&7	High Lube Oil Pressure & High Seal Plan Presuure	X						1	11-PM-102A Permision To Start	11-PM-102A	VD-1208-307A-PID-211-Sh4	3
2		2	11-PT-10278(PAH-10278)													

Note:

1- Lube Oil Pressure should reach at least to 2.5barg for permission to start

2- Seal Plan pressure should reach at Least 31 barg for permission to start

3. Both lube oil pressure and seal plan 54 pressure should reach at their set piont together for permission to start

3

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 03 — Page 5 of 15		

I-10215B (Start Commands For 11-P-102B & 11-P-130B)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102B 11-P-130B	1	11-PT-10282B(PAH-10282A)	VD-1208-307A-PID-211-Sh6&8	High Lube Oil Pressure & High Seal Plan Presuure	X						1	11-PM-102B Permision To Start	11-PM-102B	VD-1208-307A-PID-211-Sh5	3
2		2	11-PT-10278(PAH-10278)													

Note:

1- Lube Oil Pressure should reach at least to 2.5barg for permission to start

2- Seal Plan pressure should reach at Least 31 barg for permission to start

3. Both lube oil pressure and seal plan 54 pressure should reach at their set piont together for permission to start

3

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 03 — Page 6 of 15		

IS-10216A (Trip Commands of 11-P-102A & 11-P-130A)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	7	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102A,11-P-130A		11-VXE-10275A	VD-1208-307A-PID-211-sh4	High High Radial Vibration at Pump A NDE Bearing (1 out of 2)	X							1	MMS trip Rely Due to Pump A (11-P-102A)	XS-10216AA	VD-1208-307A-PID-211-Sh4	
2			11-VYE-10275A										2	MMS trip Rely Due to Booster Pump A (11-P-130A)	XS-10216AB	VD-1208-307A-PID-211-Sh4	
3			11-VXE-10276A	VD-1208-307A-PID-211-sh4	High High Radial Vibration at Pump A DE Bearing (1 out of 2)	X							3	MMS trip Rely Due to Motor A (11-PM-102A)	XS-10216AC	VD-1208-307A-PID-211-Sh4	
4			11-VYE-10276A														
5			11-ZE-10275A	VD-1208-307A-PID-211-sh4	High High AXIAL DISPLACEMENT at Pump A NDE Axial Bearing (2 out of 2)	X											
6			11-ZE-10276A														
7			11-TE-10277A	VD-1208-307A-PID-211-sh4	High High Temperature at Pump A NDE Sleeve Bearing (1 out of 2)	X											
8			11-TE-10278A														
9			11-TE-10276A	VD-1208-307A-PID-211-sh4	High High Temperature at Pump A NDE Tilting Pad Active Side Bearing (1 out of 2)	X											
10			11-TE-10275A														
11			11-TE-10294A	VD-1208-307A-PID-211-sh4	High High Temperature at Pump A NDE Tilting Pad Non-Active Side Bearing (1 out of 2)	X											
12			11-TE-10293A														
13			11-TE-10279A	VD-1208-307A-PID-211-sh4	High High Temperature at Pump A DE Sleeve Bearing (1 out of 2)	X											
14			11-TE-10280A														
15			11-VE-10292A	VD-1208-307A-PID-211-sh4	High High Vibration at Booster Pump A Bearing		X										
16			11-TE-10291A	VD-1208-307A-PID-211-sh4	High High Temperature at Booster Pump A Bearing (1 out of 2)		X										
17			11-TE-10292A														
18			11-VXE-10277A	VD-1208-307A-PID-211-sh4	High High Radial Vibration at Driver A DE Pump side Bearing (1 out of 2)			X									
19			11-VYE-10277A														
20			11-VXE-10278A	VD-1208-307A-PID-211-sh4	High High Radial Vibration at Driver A DE Booster Pump Side Bearing (1 out of 2)			X									
21			11-VYE-10278A														
22			11-TE-10282A 3	VD-1208-307A-PID-211-sh4	High High Temperature at Driver A DE Pump Side Bearing			X									
23			11-TE-10283A 3	VD-1208-307A-PID-211-sh4	High High Temperature at Driver A DE Booster Pump Side Bearing			X									

Note:

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT			OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB				
		Doc. No.: VD-1208-307A-DIG-231	Rev: 03	Page 7 of 15		

IS-10216A (Trip Commands of 11-P-102A & 11-P-130A)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	7	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102A,11-P-130A	1	XS-10216AA	VD-1208-307A-PID-211-sh4	Common MMS trip signal due to Pump A(11-P-102A)	X	X						1	Motor Trip (11-PM-102-A)	11-PM-102-A	VD-1208-307A-PID-211-Sh4	
2		1	XS-10216AB	VD-1208-307A-PID-211-sh4	Common MMS trip signal due to Booster Pump A(11-P-130A)	X	X						2	AUX. LUBE OIL PUPM A Start	11-P-102A-PM2	VD-1208-307A-PID-211-Sh7	
3		1	XS-10216AC	VD-1208-307A-PID-211-sh4	Common MMS trip signal due to Motor A(11-PM-102A)	X	X						3	AUX. LUBE OIL PUPM A Stop	11-P-102A-PM2	VD-1208-307A-PID-211-Sh7	2
4		3	11-PT-10275AA	VD-1208-307A-PID-211-sh7	Low Low Lube Oil Pressure Lube Oil Skid A (PSLL-10275A) (2 out of 3)	X		X					5				
5		3	11-PT-10275AB										6				
6		3	11-PT-10275AC										7				
7		4	11-PT-10279C	VD-1208-307A-PID-211-sh6	Low Low Seal Plan Pressure (PSLL-10279) (2 out of 3)	X	X						8				
8		4	11-PT-10279D										9				
9		4	11-PT-10279E										10				

Note:

1- If pump trips based on high high vibration or high high bearings temperature, auxiliary lube oil pump should start and run for 5 min until main shaft stop to rotate (I-10216A).

2- If pump tripps based on lube oil pressure, then aux lube oil pump should be stopped due to preventing lube oil leakage

3- If Lube oil pressure reaches to less than 1.8barg, main pump should be tripped

4- If seal Plan 54 pressure reaches less than 29 barg, main pump should trip and aux lube oil pump shoud start and run for 5 min until shaft stop to rotate. Main and Aux condensate pumps should be stopped manually by operator after depressurizing of main pump

3

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 / Rev: 03 / Page 8 of 15		

IS-10216B (Trip Commands of 11-P-102B & 11-P-130B)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	7	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102B,11-P-130B		11-VXE-10275B	VD-1208-307A-PID-211-sh5	High High Radial Vibration at Pump B NDE Bearing (1 out of 2)	X							1	MMS trip Rely Due to Pump B (11-P-102B)	XS-10216BA	VD-1208-307A-PID-211-Sh5	
2			11-VYE-10275B										2	MMS trip Rely Due to Booster Pump B (11-P-130B)	XS-10216BB	VD-1208-307A-PID-211-Sh5	
3			11-VXE-10276B	VD-1208-307A-PID-211-sh5	High High Radial Vibration at Pump B DE Bearing (1 out of 2)	X							3	MMS trip Rely Due to Motor B (11-PM-102B)	XS-10216BC	VD-1208-307A-PID-211-Sh5	
4			11-VYE-10276B														
5			11-ZE-10275B	VD-1208-307A-PID-211-sh5	High High AXIAL DISPLACEMENT at Pump B NDE Axial Bearing (2 out of 2)	X											
6			11-ZE-10276B														
7			11-TE-10277B	VD-1208-307A-PID-211-sh5	High High Temperature at Pump B NDE Sleeve Bearing (1 out of 2)	X											
8			11-TE-10278B														
9			11-TE-10276B	VD-1208-307A-PID-211-sh5	High High Temperature at Pump B NDE Tilting Pad Active Side Bearing (1 out of 2)	X											
10			11-TE-10275B														
11			11-TE-10294B	VD-1208-307A-PID-211-sh5	High High Temperature at Pump B NDE Tilting Pad Non-Active Side Bearing (1 out of 2)	X											
12			11-TE-10293B														
13			11-TE-10279B	VD-1208-307A-PID-211-sh5	High High Temperature at Pump B DE Sleeve Bearing (1 out of 2)	X											
14			11-TE-10280B														
15			11-VE-10292B	VD-1208-307A-PID-211-sh5	High High Vibration at Booster Pump B Bearing		X										
16			11-TE-10291B	VD-1208-307A-PID-211-sh5	High High Temperature at Booster Pump B Bearing (1 out of 2)		X										
17			11-TE-10292B														
18			11-VXE-10277B	VD-1208-307A-PID-211-sh5	High High Radial Vibration at Driver B DE Pump side Bearing (1 out of 2)			X									
19			11-VYE-10277B														
20			11-VXE-10278B	VD-1208-307A-PID-211-sh5	High High Radial Vibration at Driver B DE Booster Pump Side Bearing (1 out of 2)			X									
21			11-VYE-10278B														
22			11-TE-10282B 3	VD-1208-307A-PID-211-sh4	High High Temperature at Driver B DE Pump Side Bearing			X									
23			11-TE-10283B 3	VD-1208-307A-PID-211-sh5	High High Temperature at Driver B DE Booster Pump Side Bearing			X									

Note:

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 03 — Page 9 of 15		

IS-10216B (Trip Commands of 11-P-102B & 11-P-130B)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	7	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102B,11-P-130B	1	XS-10216BA	VD-1208-307A-PID-211-sh5	Common MMS trip signal due to Pump B(11-P-102B)	X	X						1	Motor Trip (11-PM-102-B)	11-PM-102-B	VD-1208-307A-PID-211-Sh5	
2		1	XS-10216BB	VD-1208-307A-PID-211-sh5	Common MMS trip signal due to Booster Pump B(11-P-130B)	X	X						2	AUX. LUBE OIL PUPM B Start	11-P-102B-PM2	VD-1208-307A-PID-211-Sh8	
3		1	XS-10216BC	VD-1208-307A-PID-211-sh5	Common MMS trip signal due to Motor B(11-PM-102B)	X	X						3	AUX. LUBE OIL PUPM B Stop	11-P-102B-PM2	VD-1208-307A-PID-211-Sh8	2
4		3	11-PT-10275BA	VD-1208-307A-PID-211-sh8	Low Low Lube Oil Pressure Lube Oil Skid B (PSLL-10275B) (2 out of 3)	X		X					5				
5		3	11-PT-10275BB										6				
6		3	11-PT-10275BC										7				
7		4	11-PT-10279C	VD-1208-307A-PID-211-sh6	Low Low Seal Plan Pressure (PSLL-10279) (2 out of 3)	X	X						8				
8		4	11-PT-10279D										9				
9		4	11-PT-10279E										10				

Note:

1- If pump trips based on high high vibration or high high bearings temperature, auxiliary lube oil pump should start and run for 5 min until main shaft stop to rotate (I-10216B).

2- If pump tripps based on lube oil pressure, then aux lube oil pump should be stopped due to preventing lube oil leakage

3- If Lube oil pressure reaches to less than 1.8barg, main pump should be tripped

4- If seal Plan 54 pressure reaches less than 29 barg, main pump should trip and aux lube oil pump shoud start and run for 5 min until shaft stop to rotate. Main and Aux condensate pumps should be stopped manually by operator after depressurizing of main pump

3

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 03 — Page 10 of 15		

I-10217 (Aux Seal System Pump Start/Stop)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	7	8	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	Seal System Unit for 11-P-		11-PT-10278(PAL-10278)	VD-1208-307A-PID-211-Sh6	Low Pressure in Seal Plan 54	X								1	MAIN/AUX CONDENSATE PUMP 1 and 2 Start	11-P-102-PM3&4&5&6	VD-1208-307A-PID-211-Sh6	1
2			11-PT-10278(PAHH-10278)	VD-1208-307A-PID-211-Sh6	High High Pressure in Seal Plan 54		X							2	MAIN/AUX CONDENSATE PUMP 1 and 2 Stop	11-P-102-PM3&4&5&6	VD-1208-307A-PID-211-Sh6	2

Note:

1- If 11-P-102-P3&P4 as main pumps are already in service and Low pressure in seal plan 54 initiates at pressure lower than 31barg, then 11-P-102-P5&P6 shold be startedas auxiliary pumps by I-10217, If 11-P-102-P5&P6 as main pumps are already in service and Low pressure in seal plan 54 initiates at pressure lower that 31barg, then 11-P-102-P3&P4 shold be startedas auxiliary pumps by I-10217

2- If 11-P-102-P5&P6 as auxiliary pumps are in service and high high pressure in seal plan 54 initiates at pressure higher than 38barg, Then 11-P-102-P5&P6 should be stopped by I-10217, If 11-P-102-P3&P4 as auxiliary pumps are in service and high high pressure in seal plan 54 initiates at pressure higher than 38barg, Then 11-P-102-P3&P4 should be stopped by I-10217

I-10218A (Aux Lube Oil Pump A Auto Start/Stop)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	Lube Oil Unit for 11-P-102A	1	11-PT-10282A (PAHH-10282A)	VD-1208-307A-PID-211-Sh7	High High Pressure in Lube Oil unit A		X					1	AUX. LUBE OIL PUPM A Start	11-P-102A-PM2	VD-1208-307A-PID-211-Sh7	
2		2	11-PT-10282A (PAL-10282A)	VD-1208-307A-PID-211-Sh7	Low Pressure in Lube Oil unit A	X						2	AUX. LUBE OIL PUPM A Stop	11-P-102A-PM2	VD-1208-307A-PID-211-Sh7	

Note:

1- Aux lube oil Pump A stop at 3 barg if the pump 11-P-102A is running. However if 11-P-102A tripped and there is no running signal. this pump will start and remain the pressure of the lube oil line for 5 min until shaft stopped to rotate

2- Low Pressure of Lube oil unit A will Start the Auxilliary lube oil pump @2barg

I-10218B (Aux Lube Oil Pump B Auto Start/Stop)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	Lube Oil Unit for 11-P-102B	1	11-PT-10282B (PAHH-10282B)	VD-1208-307A-PID-211-Sh8	High High Pressure in Lube Oil unit A		X					1	AUX. LUBE OIL PUPM B Start	11-P-102B-PM2	VD-1208-307A-PID-211-Sh8	
2		2	11-PT-10282B (PAL-10282B)	VD-1208-307A-PID-211-Sh8	Low Pressure in Lube Oil unit A	X						2	AUX. LUBE OIL PUPM B Stop	11-P-102B-PM2	VD-1208-307A-PID-211-Sh8	

Note:

1- Aux lube oil Pump B stop at 3 barg if the pump 11-P-102B is running. However if 11-P-102B tripped and there is no running signal. this pump will start and remain the pressure of the lube oil line for 5 min until shaft stopped to rotate

2- Low Pressure of Lube oil unit B will Start the Auxilliary lube oil pump @2barg

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 02 — Page 13 of 15		

I-10219A (Lube Oil Heater A Start/Stop)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	Lube Oil Unit for 11-P-101A		11-TT-10273A (TAH-10273A)	VD-1208-307A-PID-211-Sh7	High Temperature in Lube Oil Reservoir A		X					1	Heater Lube Oil Tank- Pump A Start	11-P-102A-H1	VD-1208-307A-PID-111-Sh7	
2			11-TT-10273A(TAL-10273A)	VD-1208-307A-PID-211-Sh7	Low Temperature in Lube Oil Reservoir A	X						2	Heater Lube Oil Tank- Pump A Stop	11-P-102A-H1	VD-1208-307A-PID-111-Sh7	
3			11-LT-10275A (LALL-10275A)	VD-1208-307A-PID-211-Sh7	Low Low Level in Lube Oil Reservoir A		X									

Note:

I-10219B (Lube Oil Heater B Start/Stop)

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	Lube Oil Unit for 11-P-102B		11-TT-10273B (TAH-10273B)	VD-1208-307A-PID-211-Sh8	High Temperature in Lube Oil Reservoir B		X					1	Heater Lube Oil Tank- Pump B Start	11-P-101B-H1	VD-1208-307A-PID-111-Sh8	
2			11-TT-10273B(TAL-10273B)	VD-1208-307A-PID-211-Sh8	Low Temperature in Lube Oil Reservoir B	X						2	Heater Lube Oil Tank- Pump B Stop	11-P-101B-H1	VD-1208-307A-PID-111-Sh8	
3			11-LT-10275B (LALL-10275B)	VD-1208-307A-PID-211-Sh8	Low Low Level in Lube Oil Reservoir B		X									

Note:

VENDOR:	EPCC CONTRACTOR:	HENGAM FERTILIZER PROJECT	OWNER:	MC:
	PIDEC	Cause and Effect Diagram For P-102 AB & P-130 AB		
		Doc. No.: VD-1208-307A-DIG-231 — Rev: 02 — Page 15 of 15		

Control Signals from FCS

ITEM NO.	GROUP	NOTE	TAG NO.	P&ID DWG. NO.	CAUSE	EFFECT NO. 1	2	3	4	5	6	ITEM NO.	EFECT	TAG NO.	P&ID DWG.NO.	Notes
1	11-P-102 A/B		11-LT-10276(LIC-10276)	VD-1208-307A-PID-211-Sh6	CONDENSATE RESERVOIR Level	X	X					1	Condensate LEVEL CONTROL VALVE	11-LV-10276A	VD-1208-307A-PID-211-Sh6	1
2												2	Demin Water LEVEL CONTROL VALVE	11-LV-10276B	VD-1208-307A-PID-211-Sh6	2

Note:

1- Condensate Tank Level Controled by 11-LV-10276A which is controled by the level transmitter 11-LT-10276

2- If opening 11-LV-10276A by 100% will not increase the level of condenate tank then 11-LV-10276B should open until the level reach to the set point

RPG

Roodhart Pump Group

Comment / Response Sheet No. **VD-1208-307A-DIG-231-2 Comments response**	Reference No.: **1308-2285 P-102 A/B**	Date of comments: **19-04-2023**
Attached Document no.: **VD-1208-307A-DIG-231-3**	Document title: **Cause and Effect Diagram**	Date of response: **03-09-2024**

Item No.	Client Comments	Vendor Clarifications/Response	Reply
Page 4 of 15	34 barg as per related P&ID.	Noted	
Page 5 of 15	34 barg as per related P&ID.	Noted	
Page 10 of 15	1 and 2 (Tag numbers shall be inline with what shown in related P&ID.)	Noted	
Page 11 of 15	Shall be corrected: If 11-P-102A tripped and there is no running signal,...	Noted	
Page 12 of 15	Shall be corrected: If 11-P-102B tripped and there is no running signal,...	Noted	