

CanmetENERGY - NRCan

100 barg Pilot Plant

DCSG Phase II – P&ID

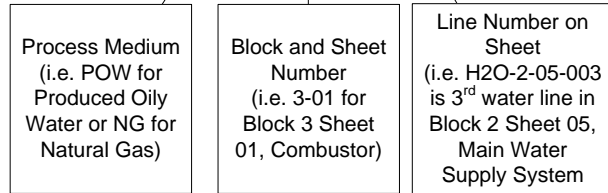
BCC - Building 4

REV.	DESCRIPTION	DATE	BY	DRAWN BY:	OSLI Phase II – P&ID - Cover Page		
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.		OSLI Phase II – P&ID - Cover Page		
1.06	Phase 2 Draft	2015/06/15	S.C.	APPROVED BY:			
1.05	Phase 2 Draft	2015/02/10	S.C.		DRAWING NO OSLI_P2_P&ID		
1.04	Phase 2 Draft	2014/12/10	S.C.	ISSUED:			
1.03	Phase 2 Draft	2014/10/29	S.C.		SHEET NO Cover		
1.02	Phase 2 Draft	2014/08/14	S.C.	SCALE: NONE			

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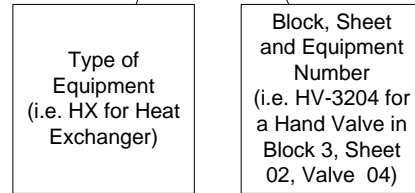
Line Naming

AA-0-00-000



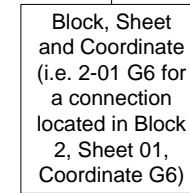
Equipment & Instrumentation Naming

AA-0000



Off-Sheet Reference Naming

0-00 A0



Block 1: Bulk Supplies

- 1-01 – CO₂ Bulk Tank
- 1-02 – O₂ Bulk Tank
- 1-03 – N₂ Bulk Tank
- 1-04 – Nat. Gas Bulk Tank
- 1-05 – Main Water Supply
- 1-06 – Prod. Water Supply

Block 2: Feed Preparation

- 2-01 – Gas Supply System
- 2-02 – Nat. Gas Supply System
- 2-03 – Slurry Supply System
- 2-04 – Liq. Fuel Supply System
- 2-05 – LP Water Supply System
- 2-06 – HP Water Supply System

Block 3: Process

- 3-01 – Combustor & Quench
- 3-02 – Scrubber & Gas Filters
- 3-03 – Liq. Bag Filters
- 3-04 – Blowdown and F Drum

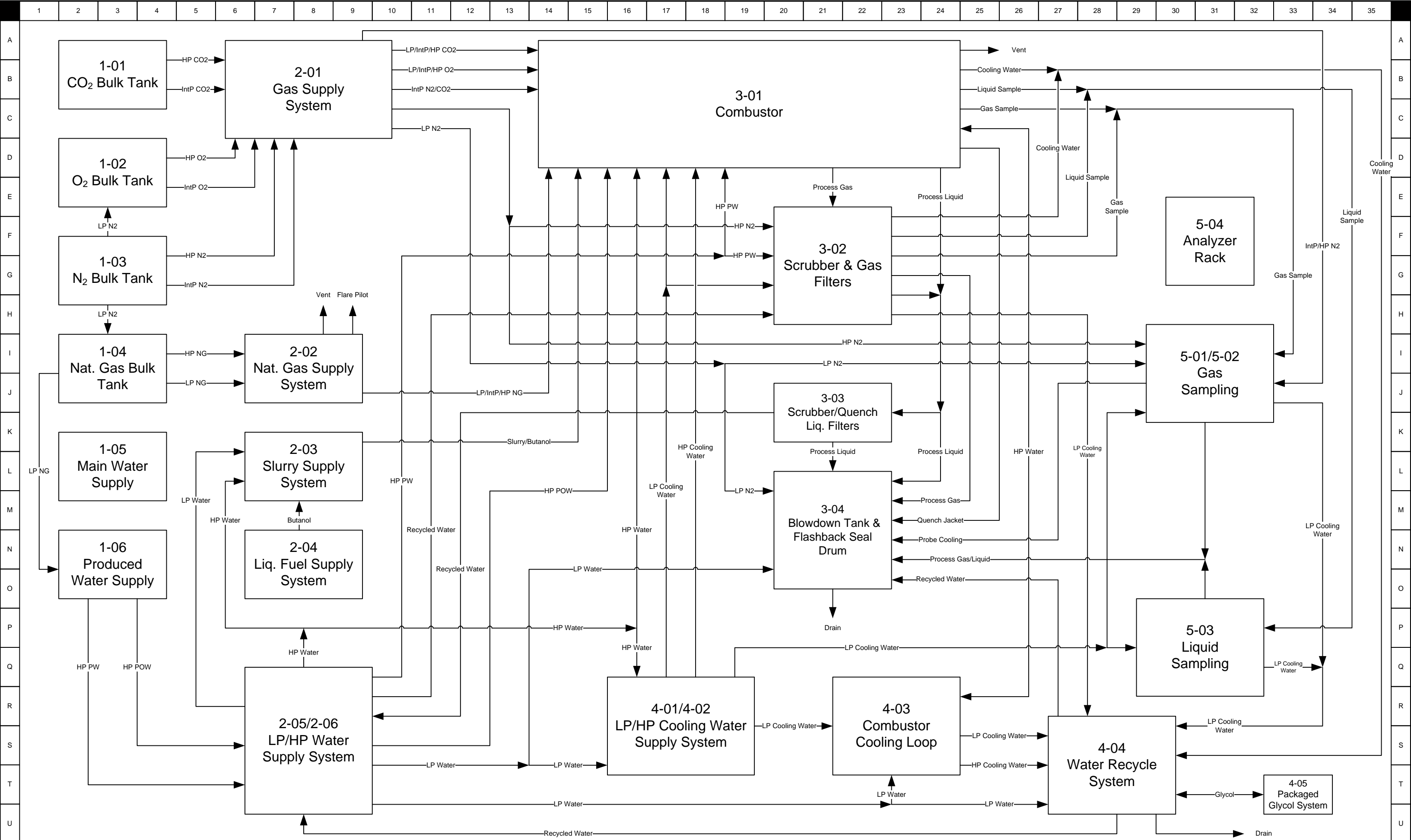
Block 4: Utilities

- 4-01 – LP Cooling Water Supply System
- 4-02 – HP Cooling Water Supply System
- 4-03 – Combustor Cooling Loop
- 4-04 – Water Recycle System
- 4-05 – Packaged Glycol System

Block 5: Sampling

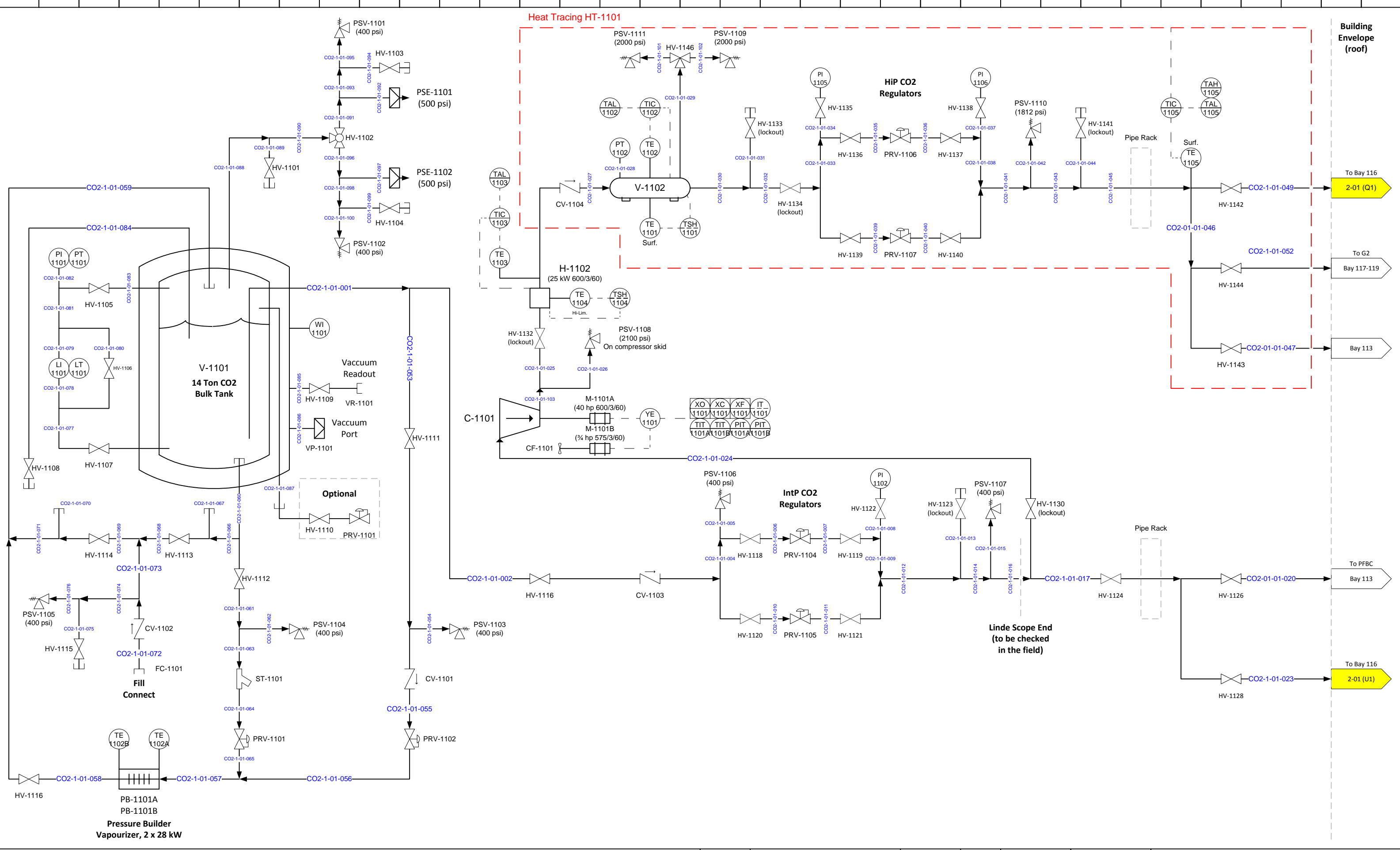
- 5-01 – Gas Sampling (Pt.1)
- 5-02 – Gas Sampling (Pt. 2)
- 5-03 – Liquid Sampling
- 5-04 – Analyzer Rack

REV.	DESCRIPTION	DATE	BY	DRAWN BY:	OSLI Phase II – P&ID – Process Components			
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.		APPROVED BY:	DRAWING NO OSLI_P2_P&ID	SHEET NO 0-01	REVISION NO 1.07
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1.05	Phase 2 Draft	2015/02/10	S.C.		ISSUED:			
1.04	Phase 2 Draft	2014/12/10	S.C.					
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1.02	Phase 2 Draft	2014/08/14	S.C.					



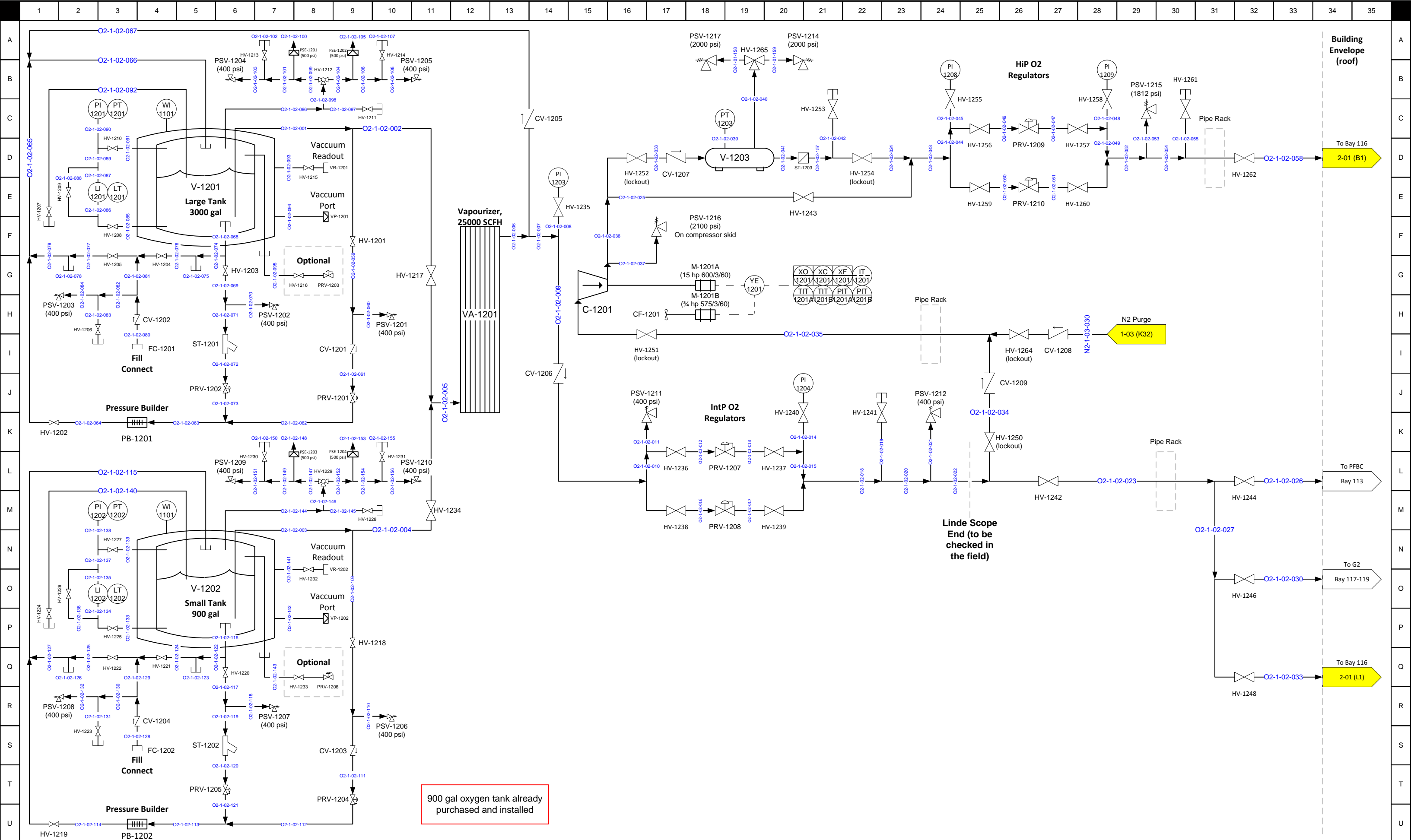
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1.06	Phase 2 Draft	2015/06/15	S.C.	APPROVED BY:	
1.05	Phase 2 Draft	2015/02/10	S.C.		
1.04	Phase 2 Draft	2014/12/10	S.C.	ISSUED:	
1.03	Phase 2 Draft	2014/10/29	S.C.		
1.02	Phase 2 Draft	2014/08/14	S.C.	SCALE: NONE	

DRAWING NO	SHEET NO	REVISION NO
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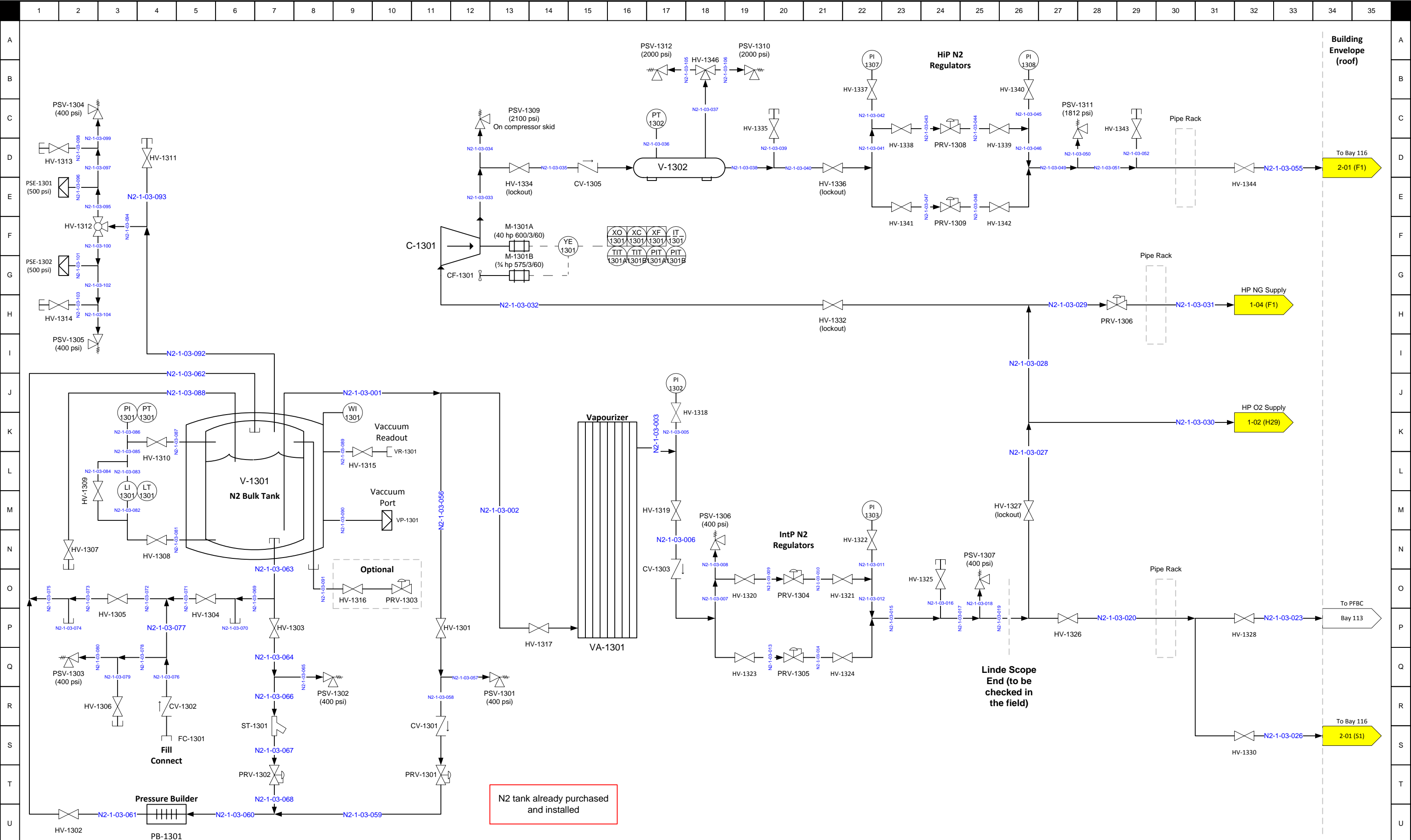
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1.04	Phase 2 Draft	2014/12/10	S.C.							
1.03	Phase 2 Draft	2014/10/29	S.C.							
1.02	Phase 2 Draft	2014/08/14	S.C.							
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OSLI Phase II – P&ID – CO₂ Bulk Tank



900 gal oxygen tank already purchased and installed

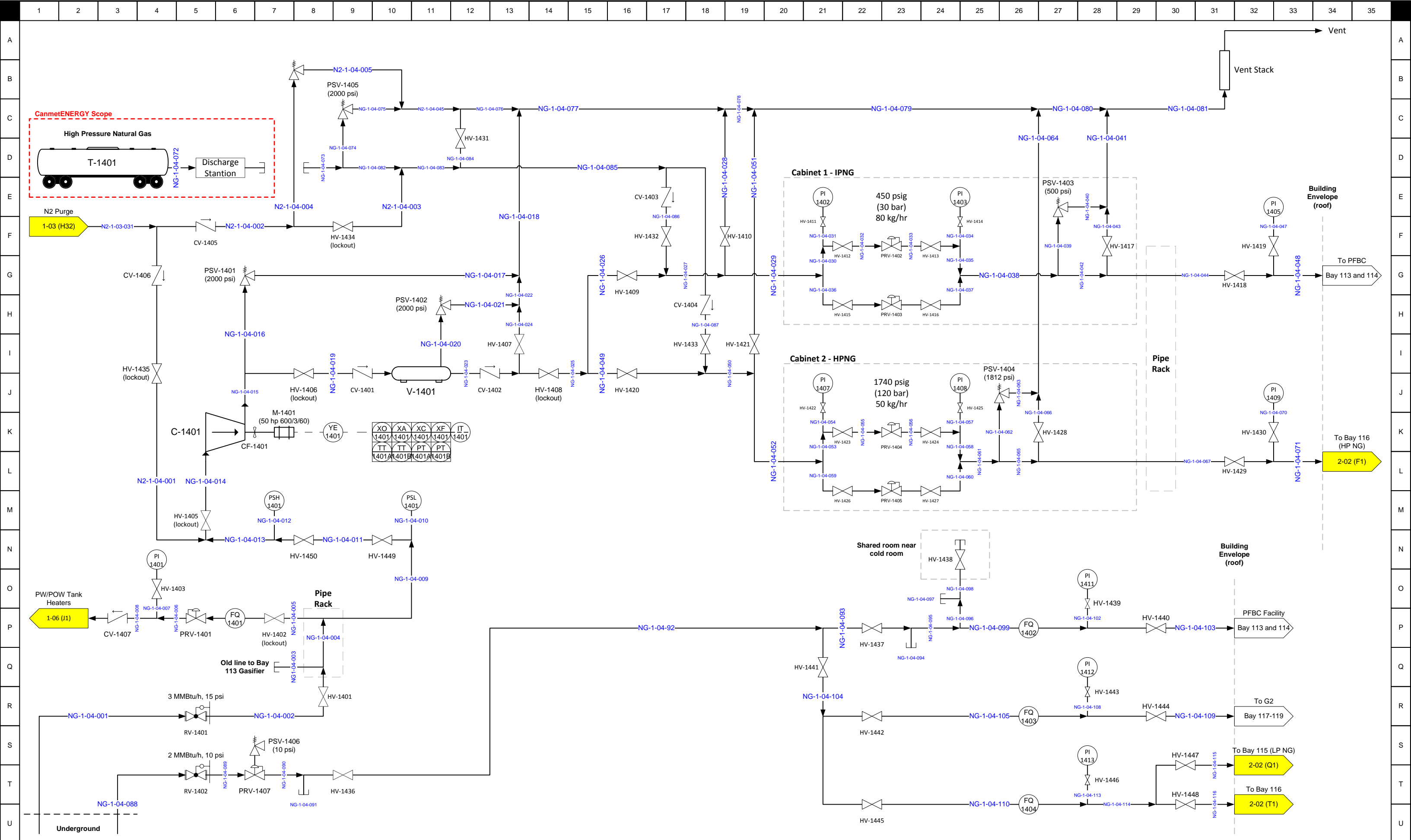
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1.04	Phase 2 Draft	2014/12/10	S.C.					
1.03	Phase 2 Draft	2014/10/29	S.C.					
1.02	Phase 2 Draft	2014/08/14	S.C.					



N2 tank already purchased and installed

REV.	DESCRIPTION	DATE	BY	DRAWN BY:	
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.		
1.06	Phase 2 Draft	2015/06/15	S.C.	APPROVED BY:	
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1.04	Phase 2 Draft	2014/12/10	S.C.	ISSUED:	
1.03	Phase 2 Draft	2014/10/29	S.C.		
1.02	Phase 2 Draft	2014/08/14	S.C.	SCALE:	NONE

OSLI Phase II – P&ID – N₂ Bulk Tank		
DRAWING NO OSLI_P2_P&ID	SHEET NO 1-03	REVISION NO 1.07

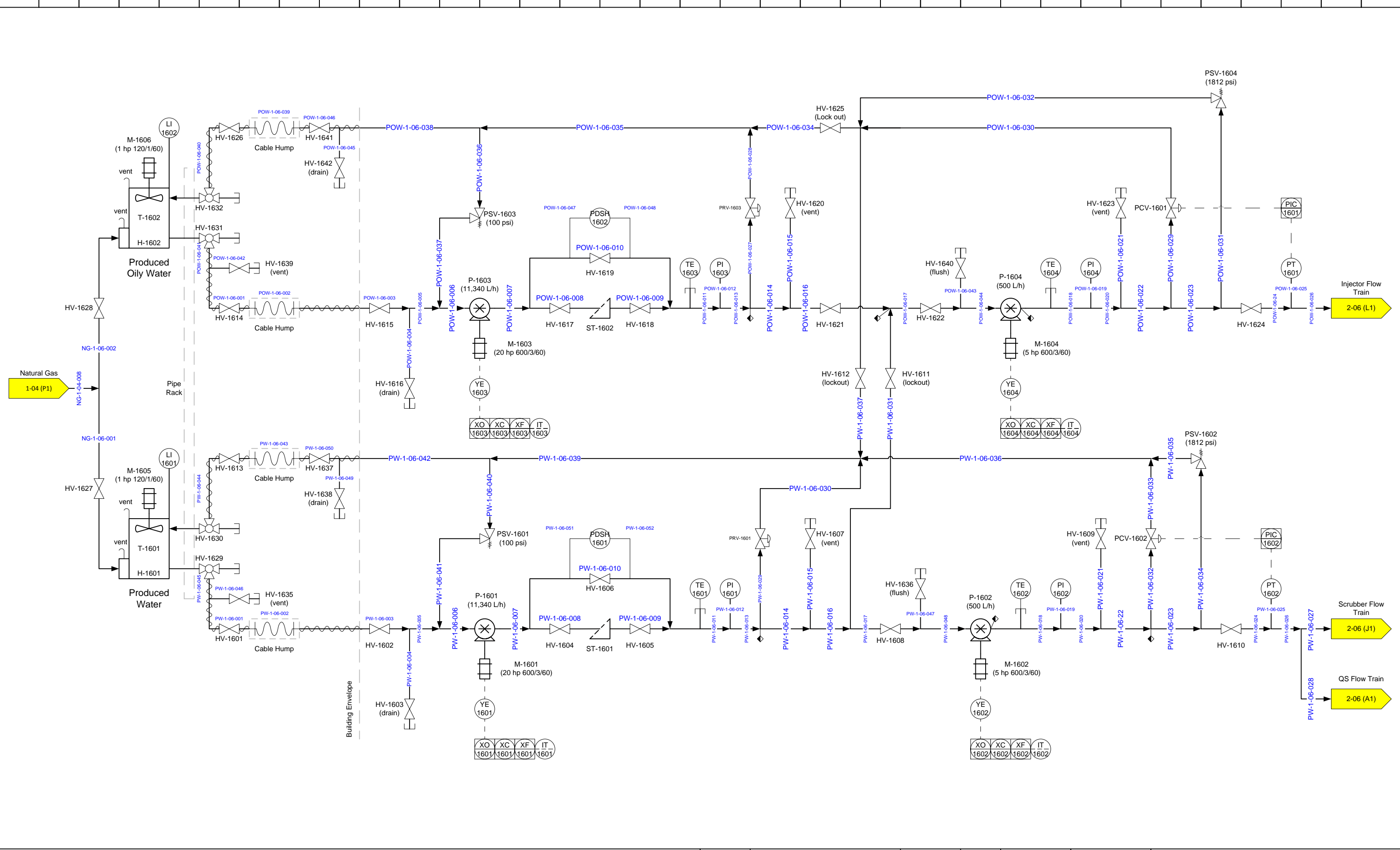


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1.03	Phase 2 Draft	2014/10/29	S.C.	SCALE:	NONE
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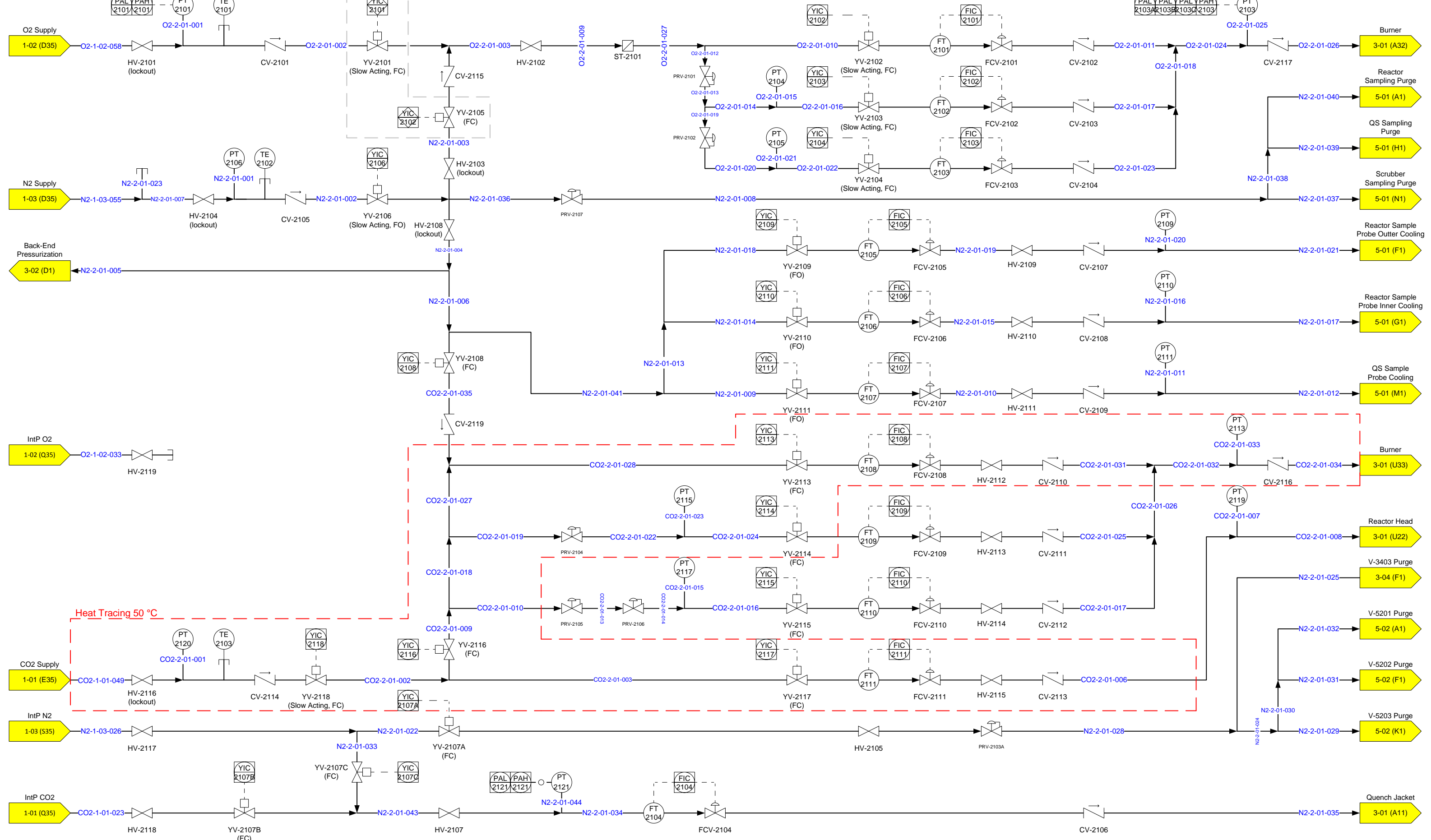
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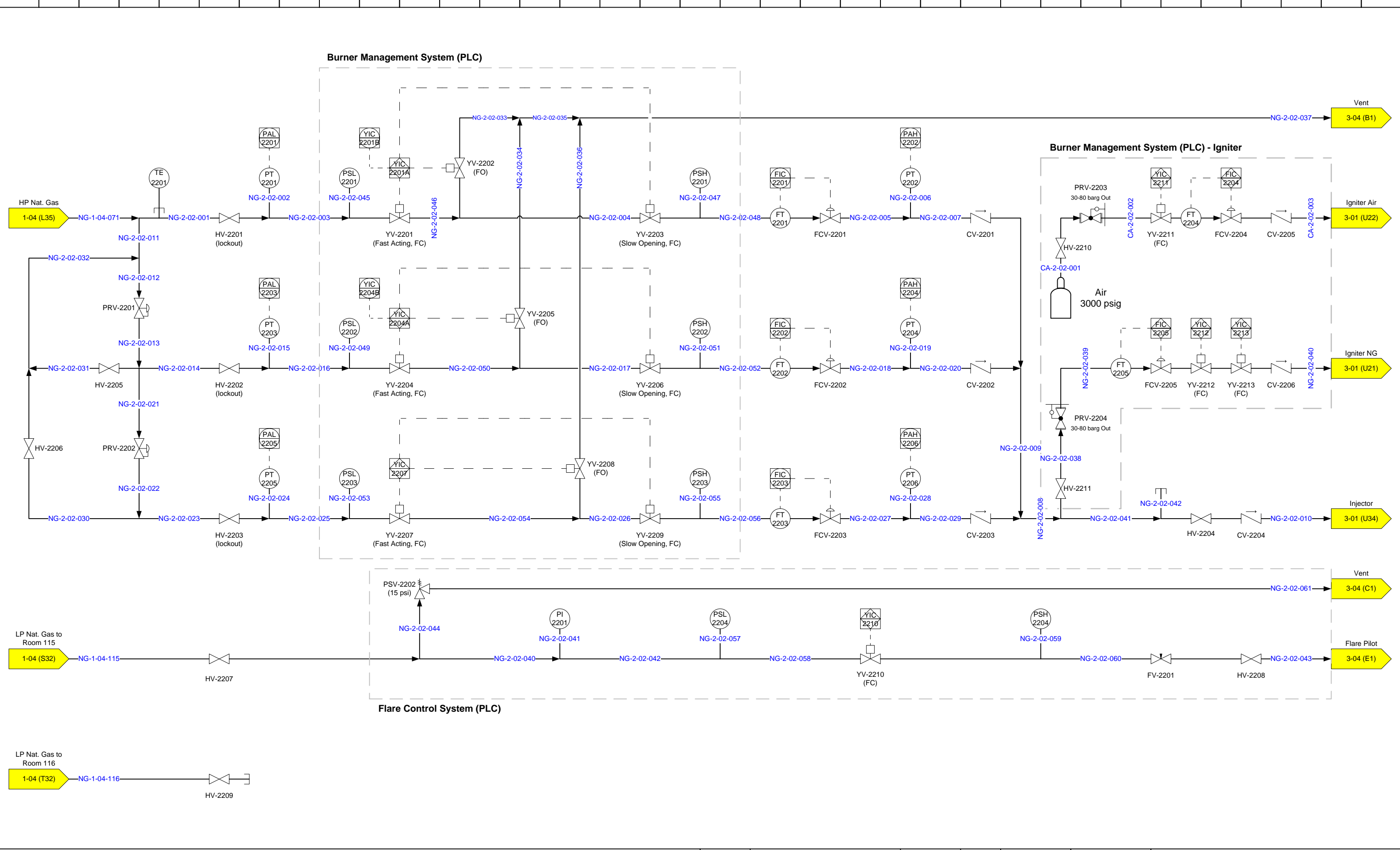
Burner Management System (PLC)



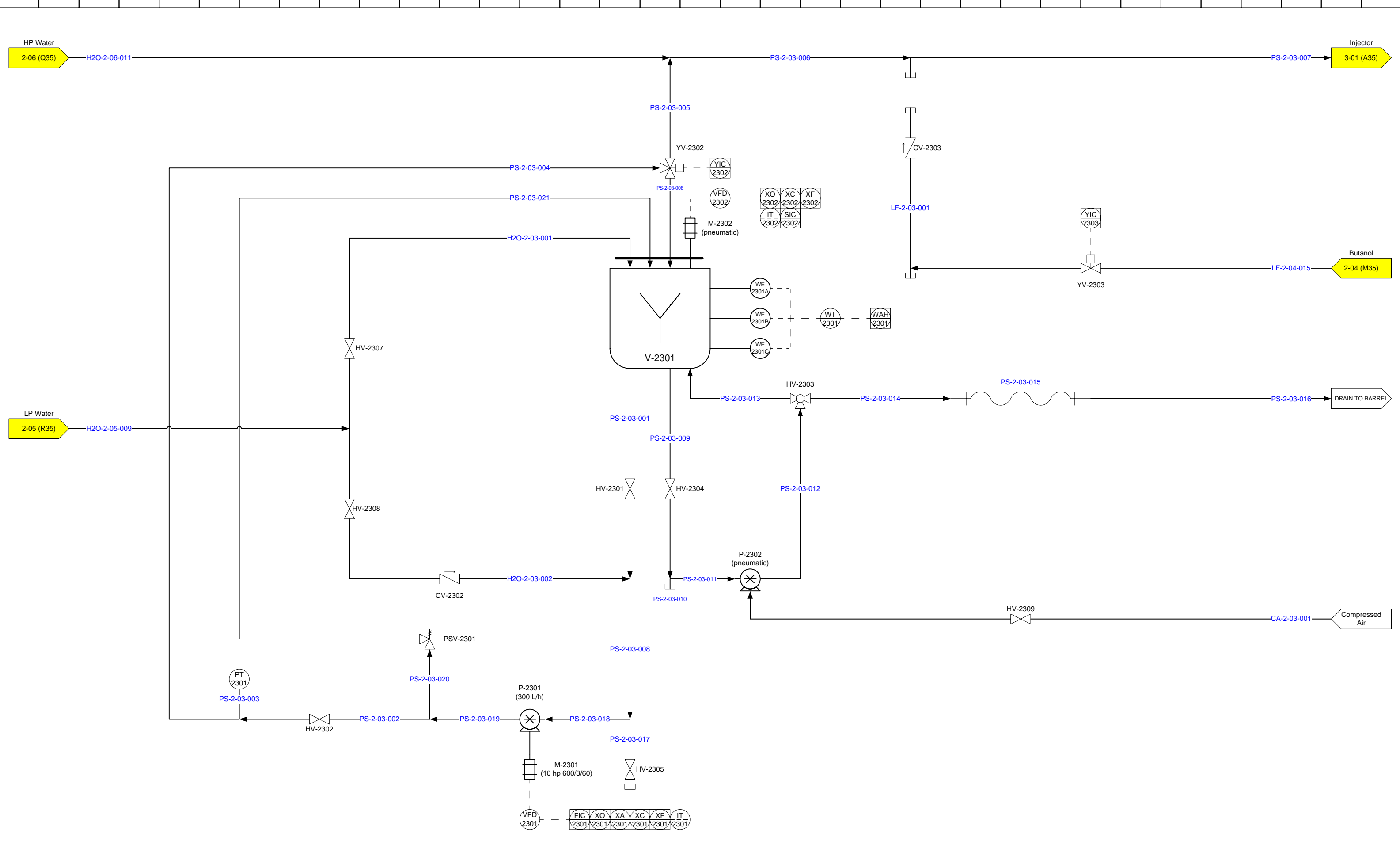
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OSLI Phase II – P&ID – Gas Supply System

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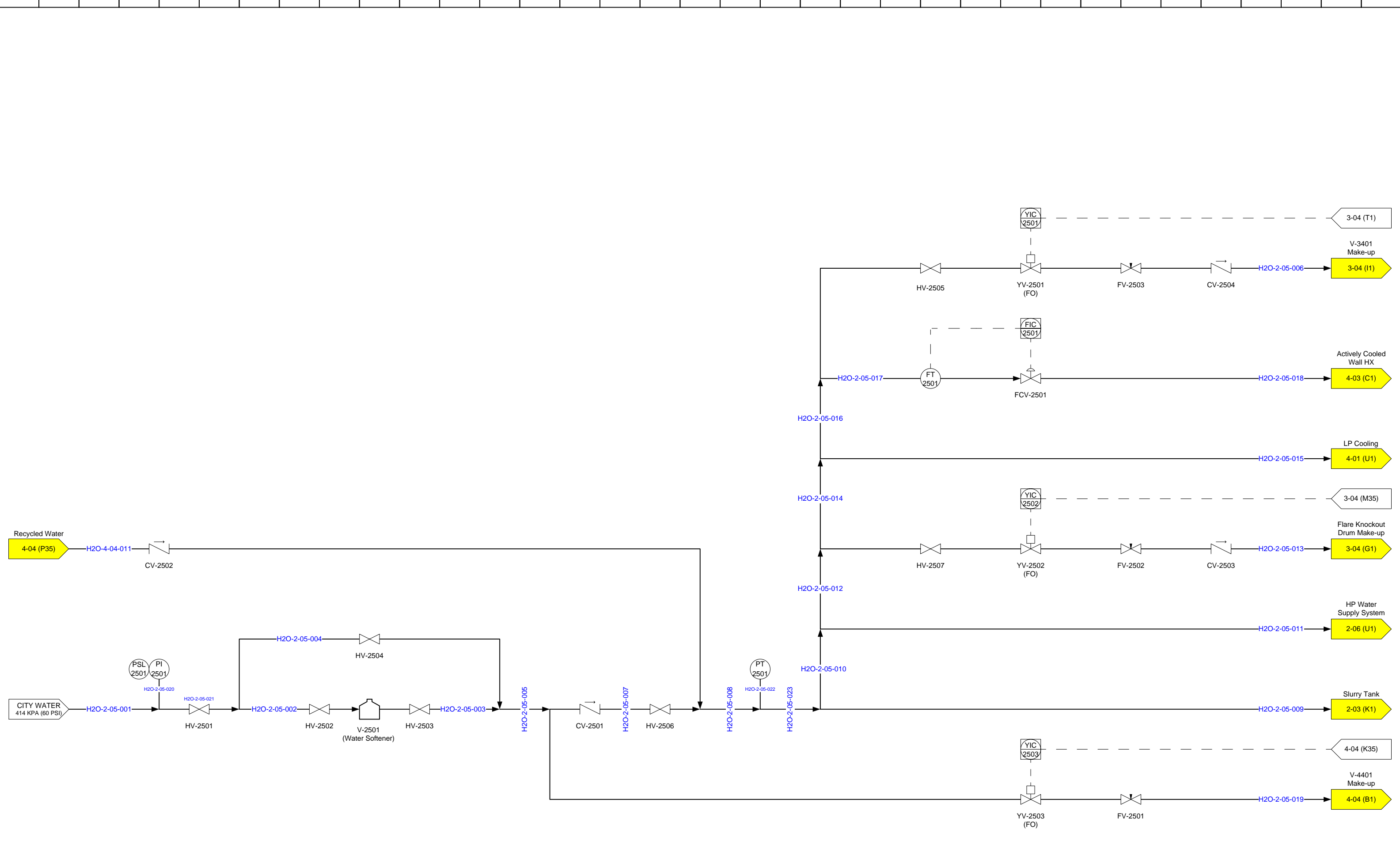


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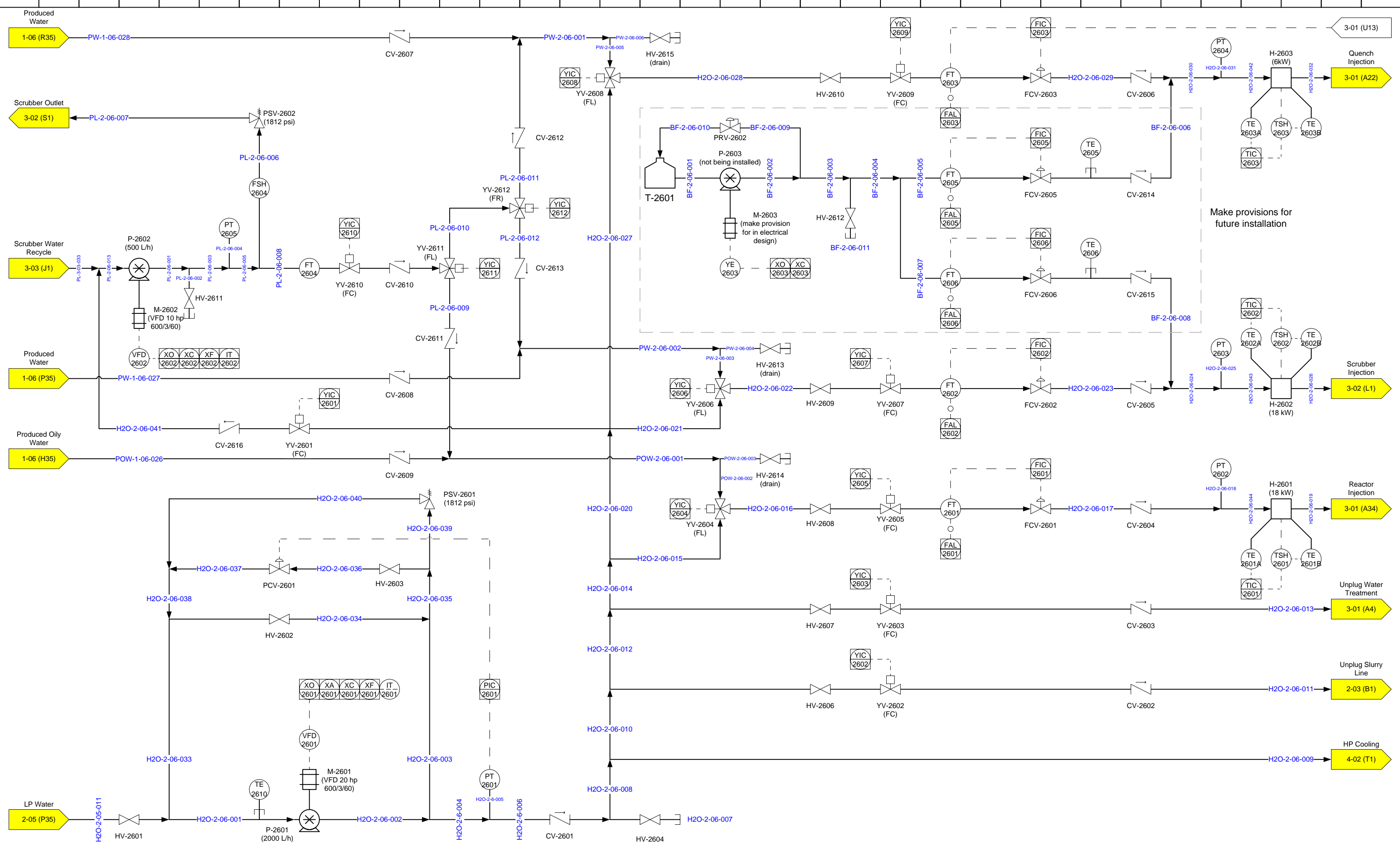
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OSLI Phase II – P&ID – Slurry Supply System



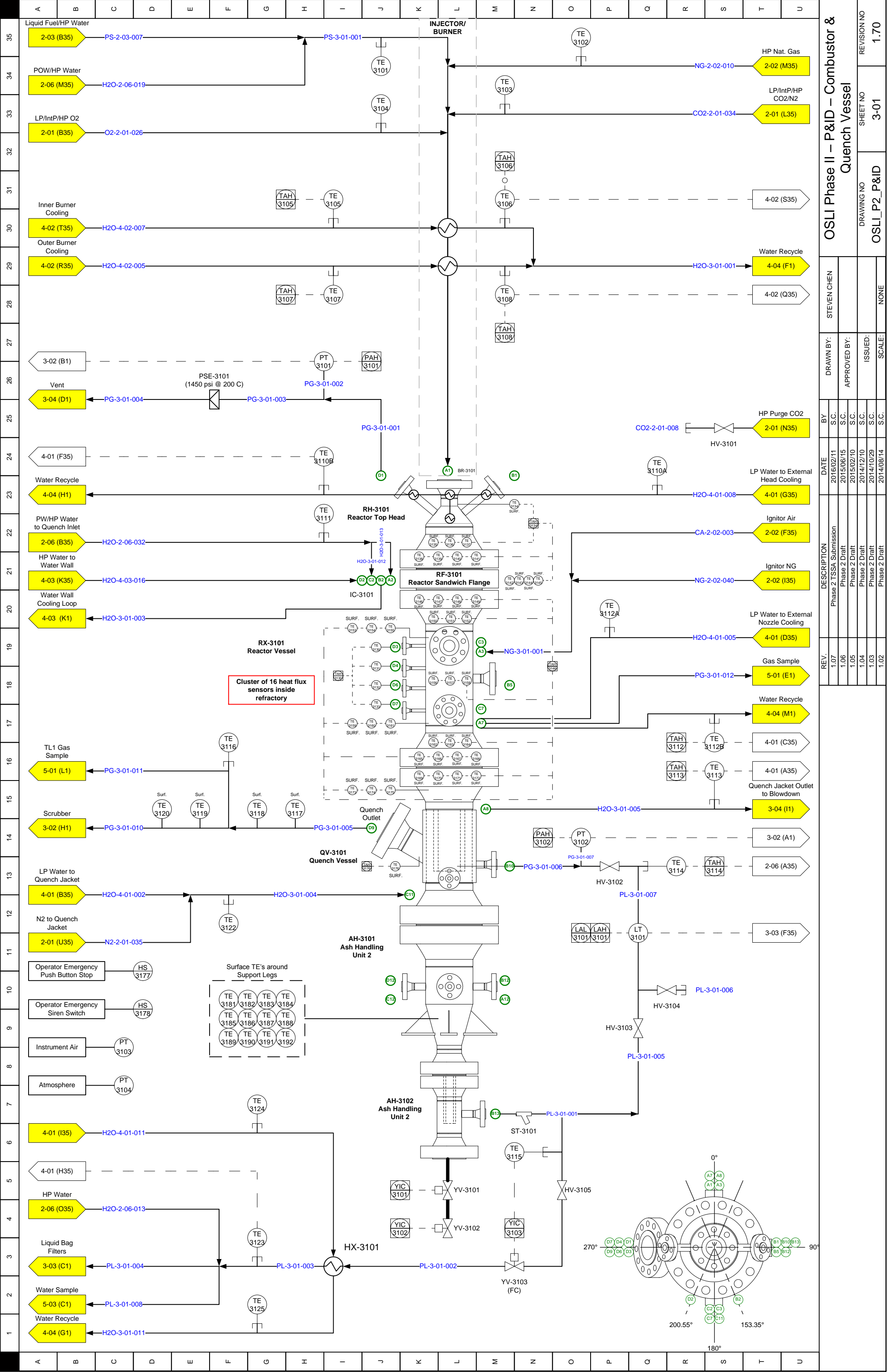
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1.02	Phase 2 Draft	2014/08/14	S.C.				

OSLI Phase II – P&ID – Low Pressure Water Supply System		
DRAWING NO OSLI_P2_P&ID	SHEET NO 2-05	REVISION NO 1.07



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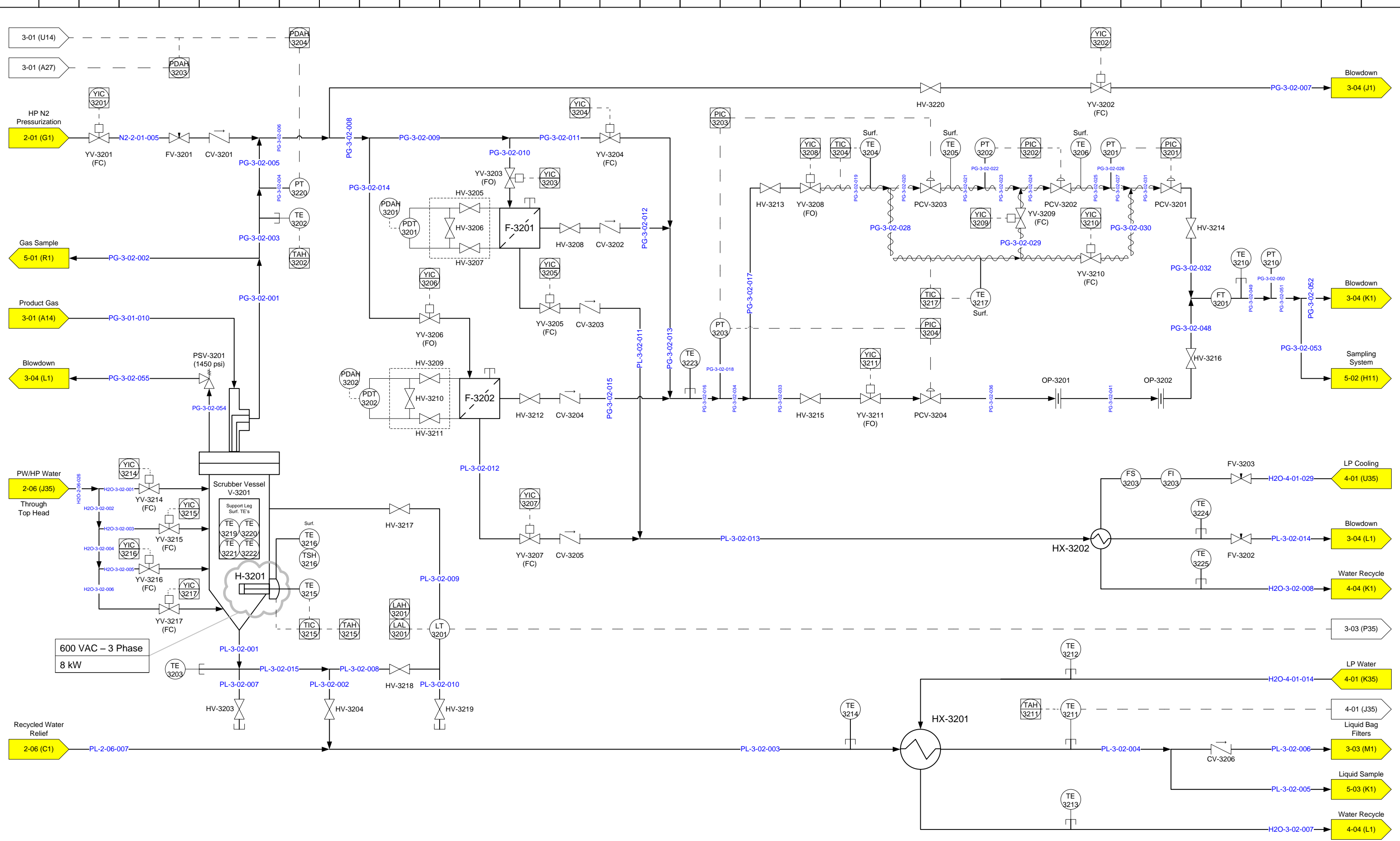
OSLI Phase II – P&ID – High Pressure Water Supply System		
DRAWING NO OSLI_P2_P&ID	SHEET NO 2-06	REVISION NO 1.07



OSLI Phase II - P&ID - Combustor & Quench Vessel

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1.06	Phase 2 Draft	2015/06/15	S.C.		
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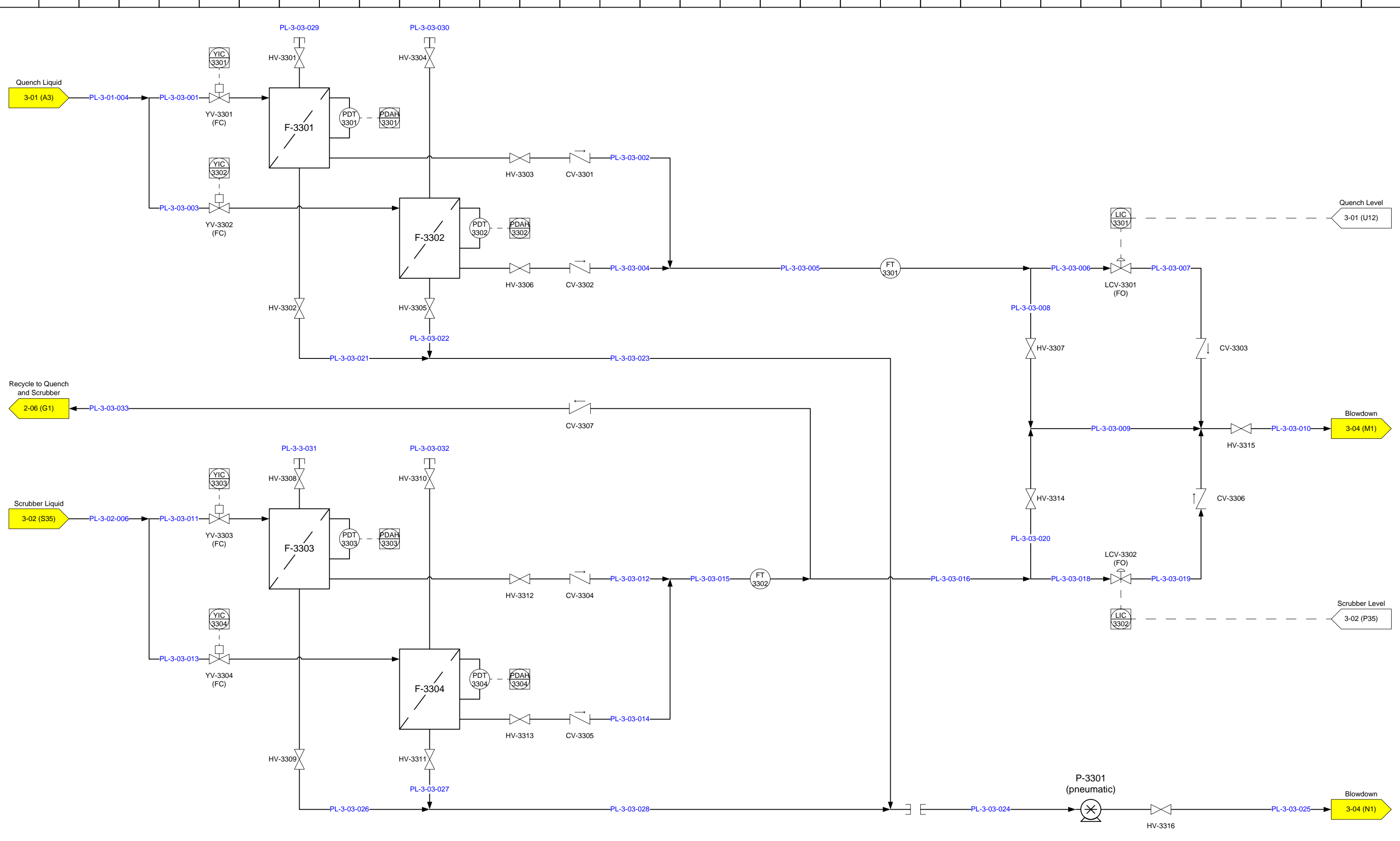
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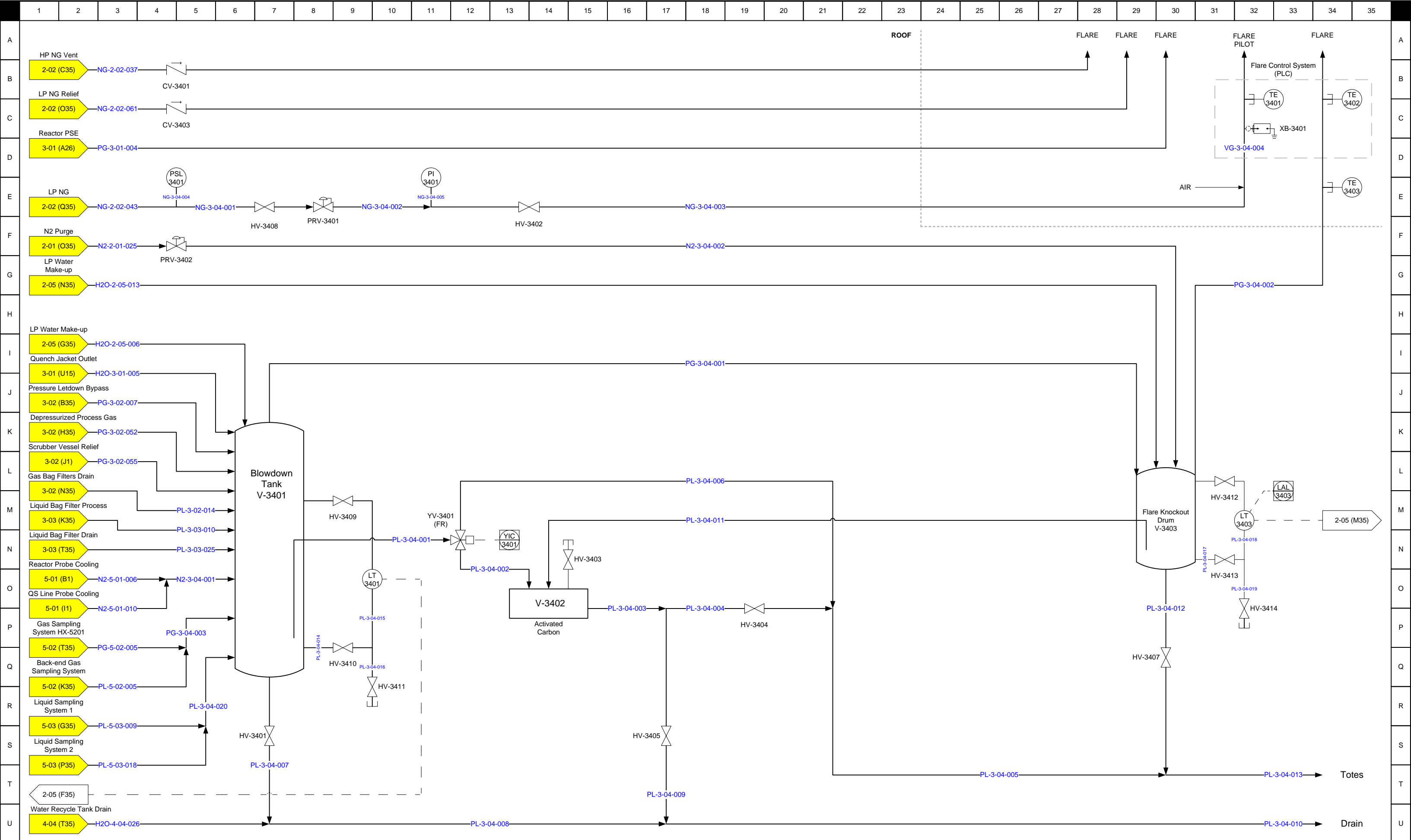
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OSLI Phase II – P&ID – Scrubber & Gas Filters

DRAWING NO: OSLI_P2_P&ID
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 REVISION NO: 1.07

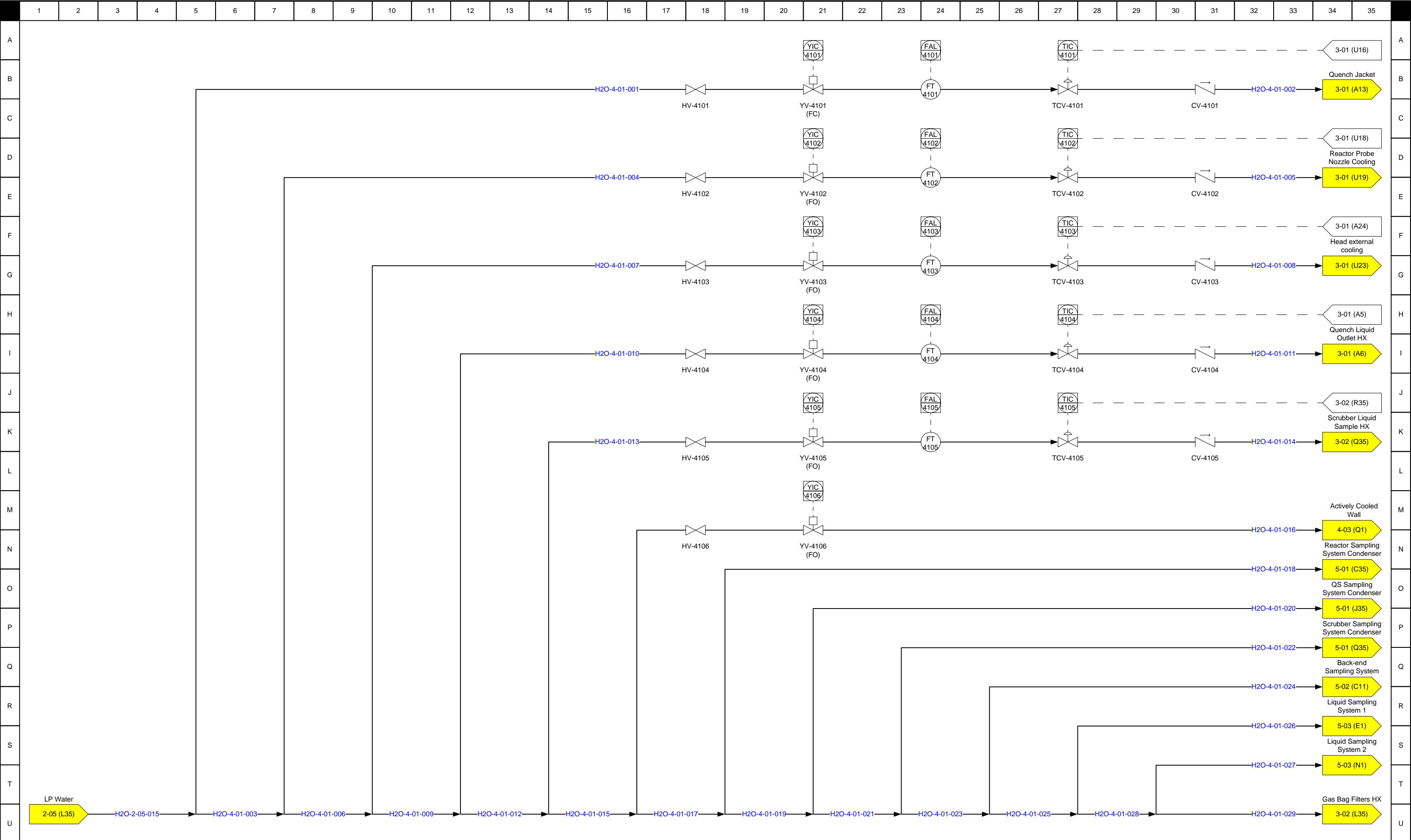


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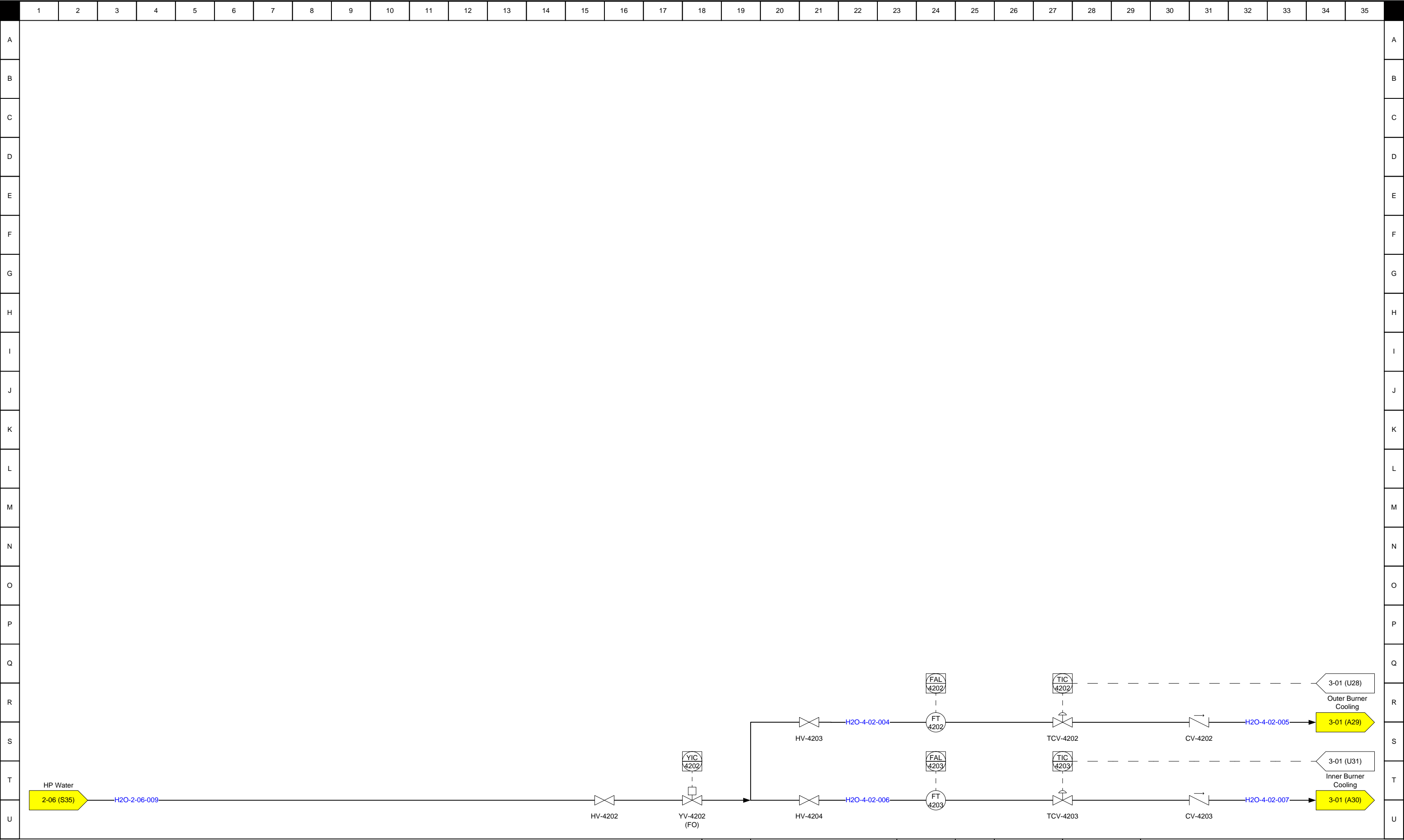


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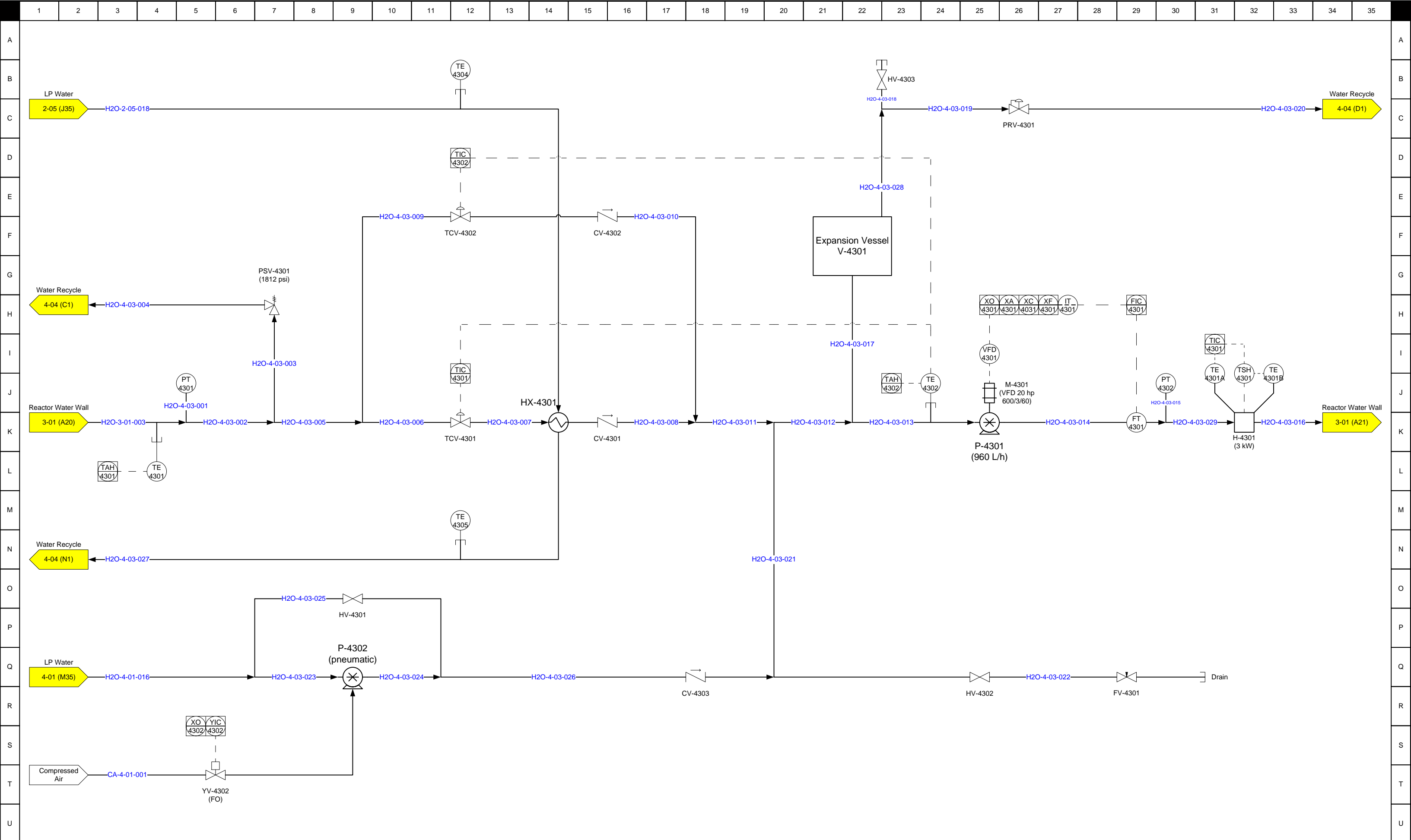
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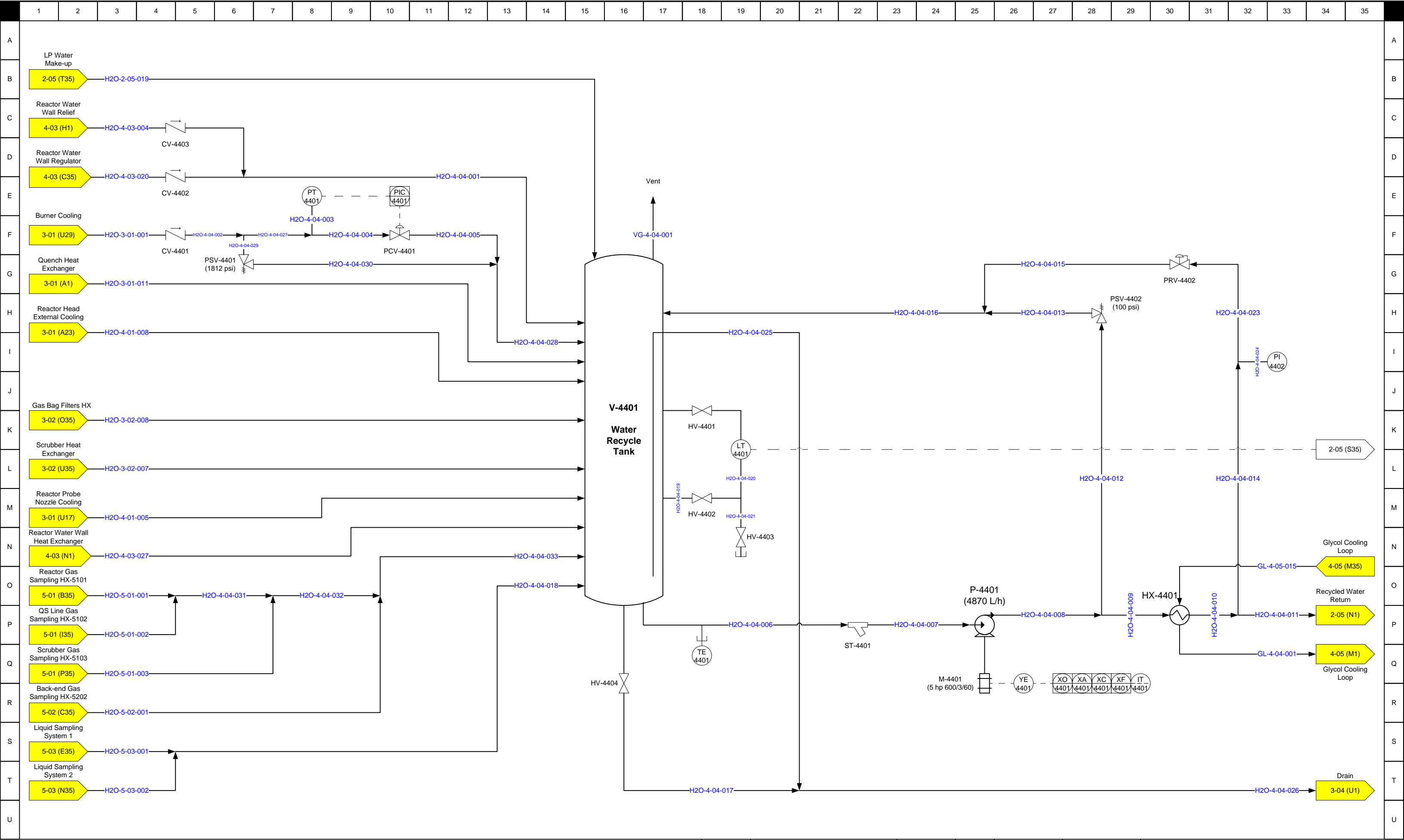


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					REVISION NO 1.07

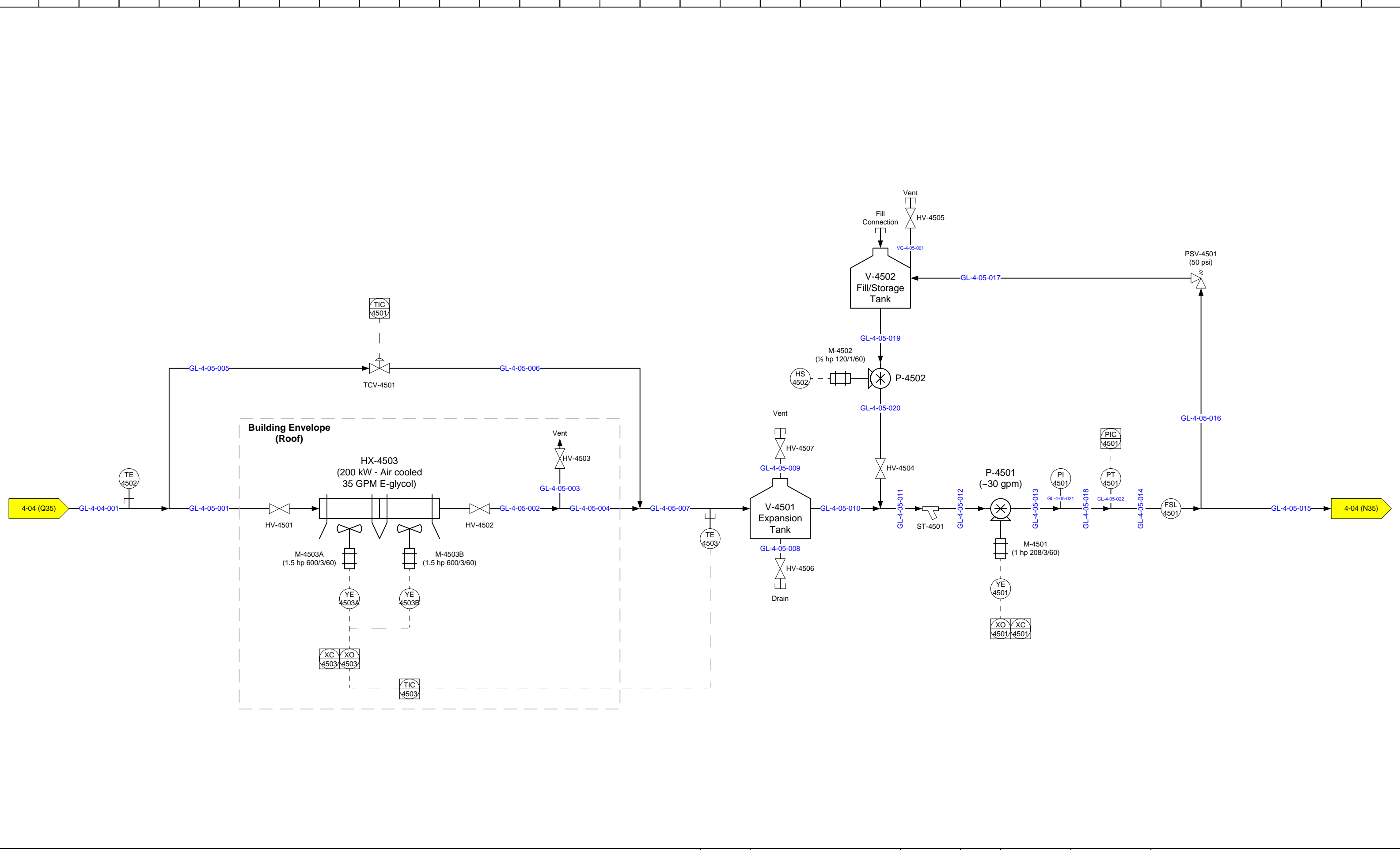


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1.02	Phase 2 Draft	2014/08/14	S.C.				

OSLI Phase II – P&ID – Combustor Cooling Loop		
DRAWING NO	SHEET NO	REVISION NO
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SCALE: NONE		



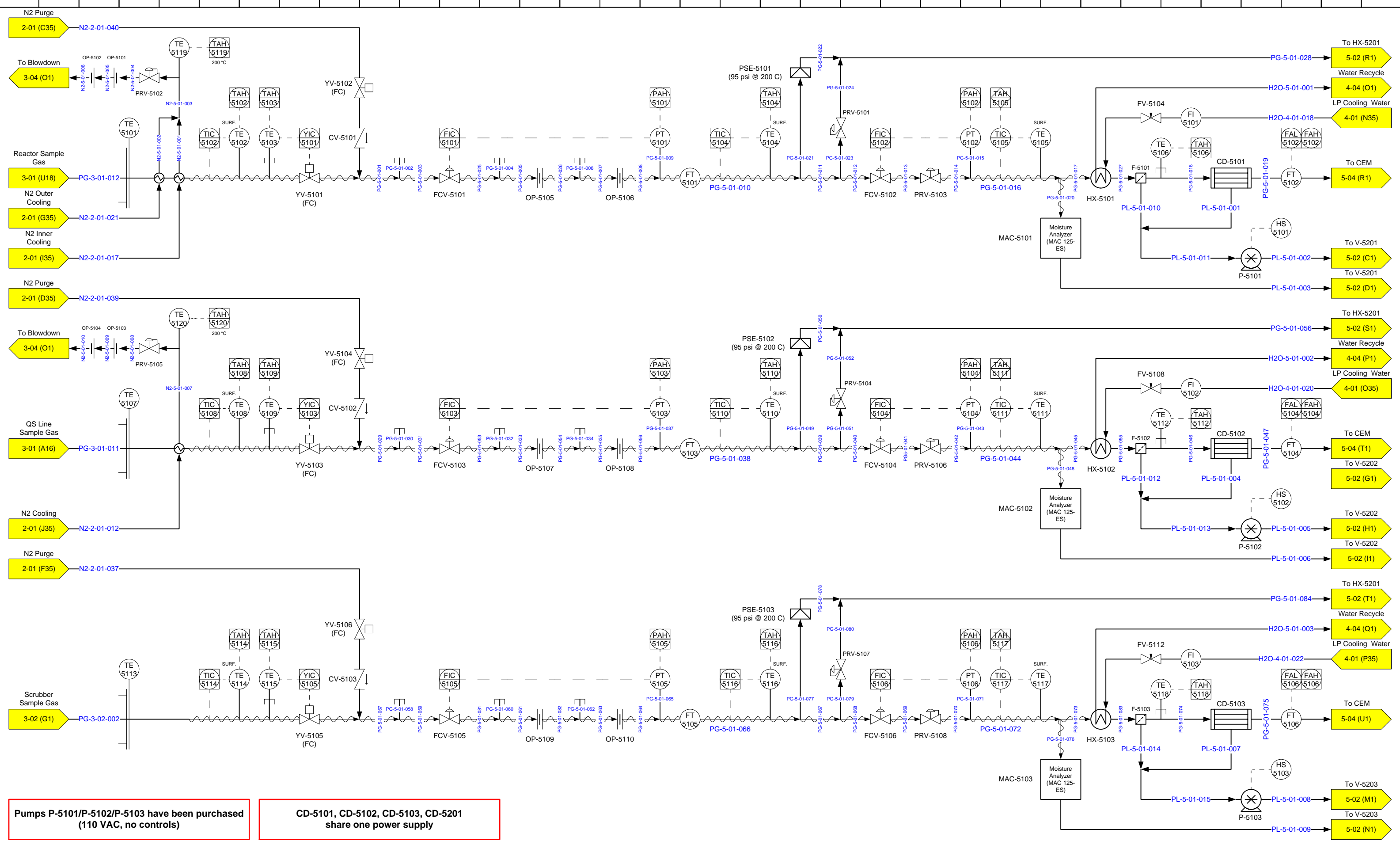
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1.03	Phase 2 Draft	2014/10/29	S.C.					
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**OSLI Phase II – P&ID –
Packaged Glycol System**

ISSUED:	
SCALE:	NONE



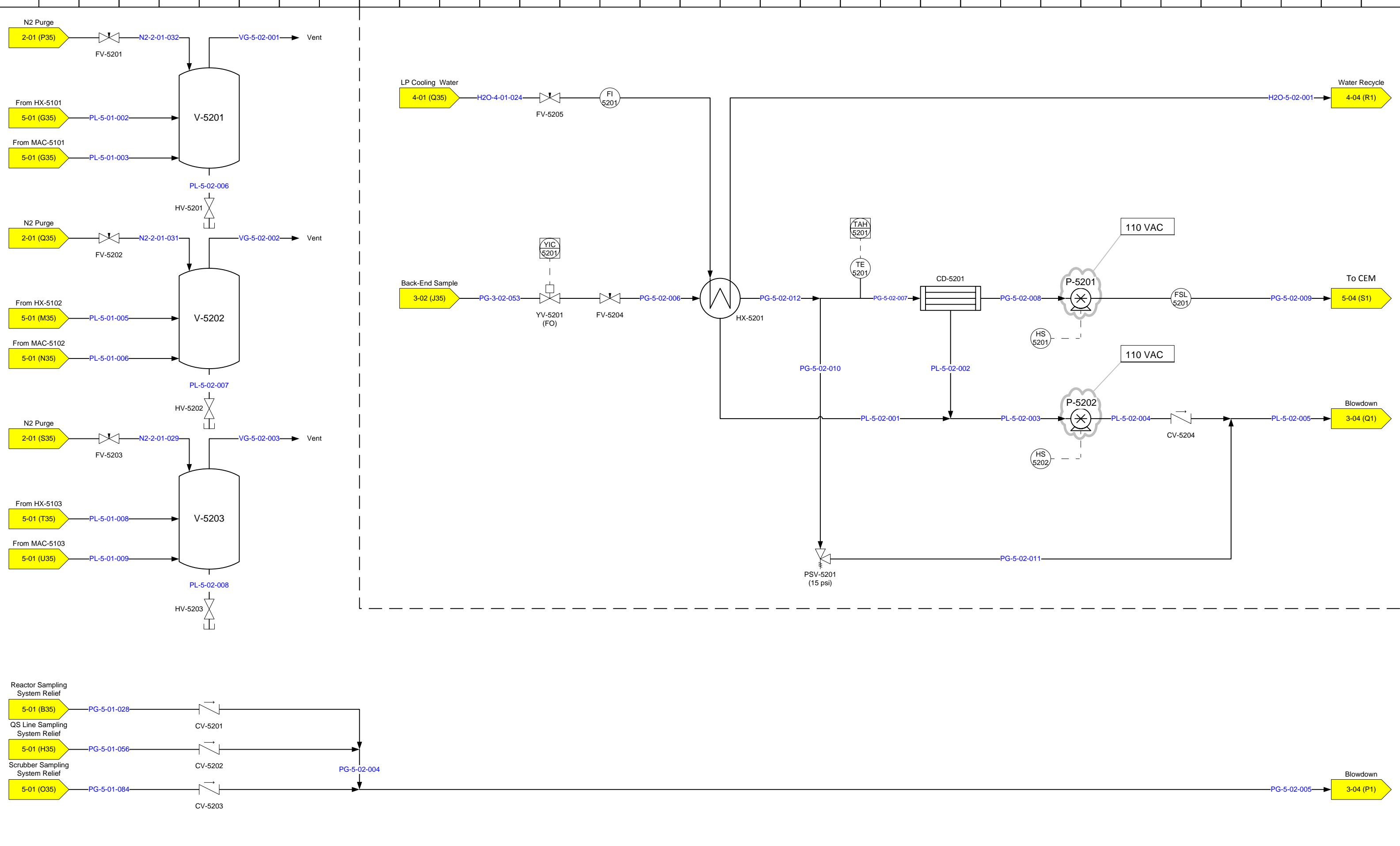
Pumps P-5101/P-5102/P-5103 have been purchased (110 VAC, no controls)

CD-5101, CD-5102, CD-5103, CD-5201 share one power supply

REV.	DESCRIPTION	DATE	BY	DRAWN BY:	APPROVED BY:	DRAWING NO	SHEET NO	REVISION NO
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.			OSLI_P2_P&ID	5-01	1.07
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1.03	Phase 2 Draft	2014/10/29	S.C.					
1.02	Phase 2 Draft	2014/08/14	S.C.					

OSLI Phase II – P&ID – Gas Sampling (Part 1)

ISSUED: SCALE: NONE

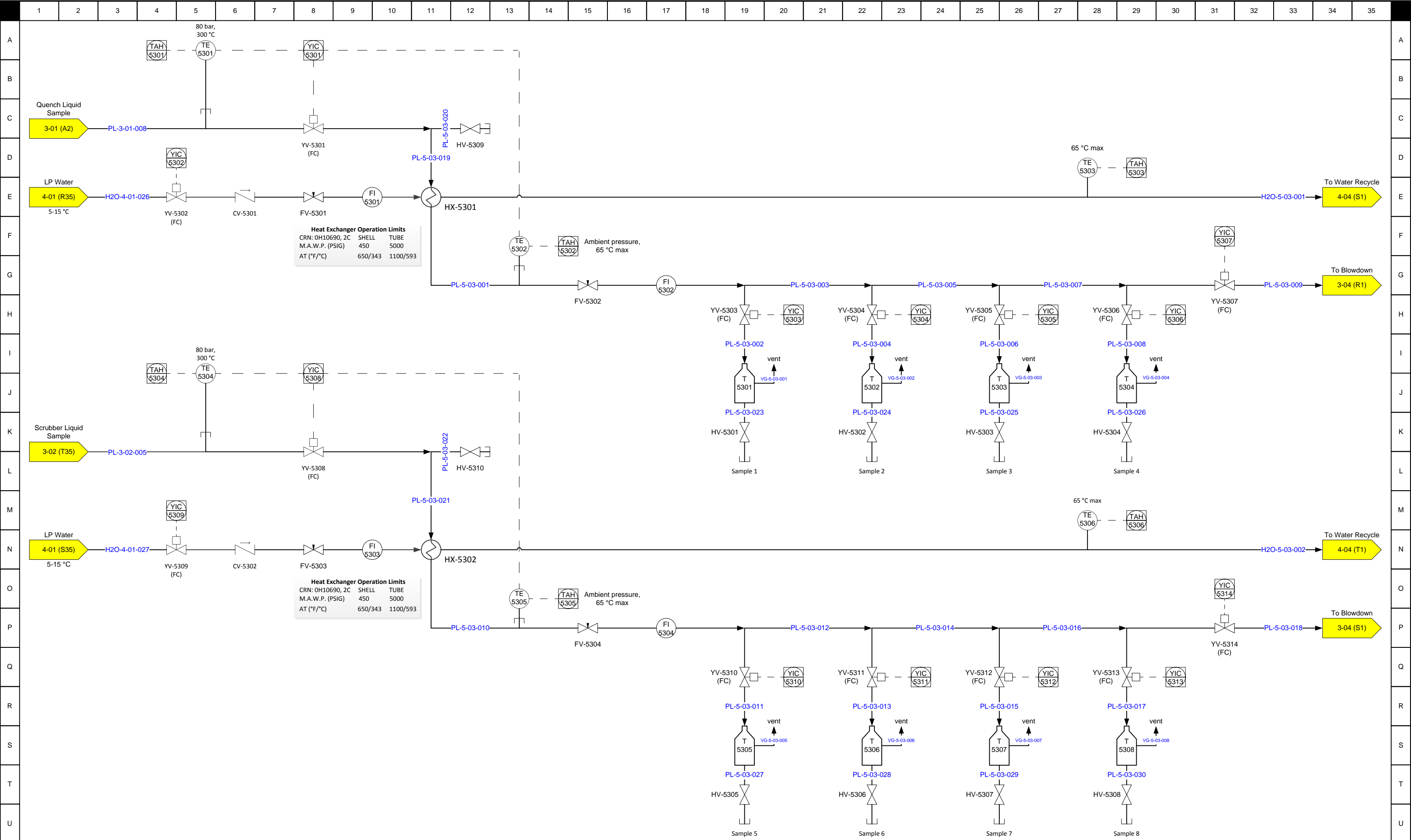


REV.	DESCRIPTION	DATE	BY	DRAWN BY:	APPROVED BY:	DRAWING NO	SHEET NO	REVISION NO
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.			OSLI_P2_P&ID	5-02	1.07
1.06	Phase 2 Draft	2015/06/15	S.C.					
1.05	Phase 2 Draft	2015/02/10	S.C.					
1.04	Phase 2 Draft	2014/12/10	S.C.					
1.03	Phase 2 Draft	2014/10/29	S.C.					
1.02	Phase 2 Draft	2014/08/14	S.C.					

OSLI Phase II – P&ID – Gas Sampling (part 2)

DRAWING NO: OSLI_P2_P&ID SHEET NO: 5-02 REVISION NO: 1.07

ISSUED: SCALE: NONE

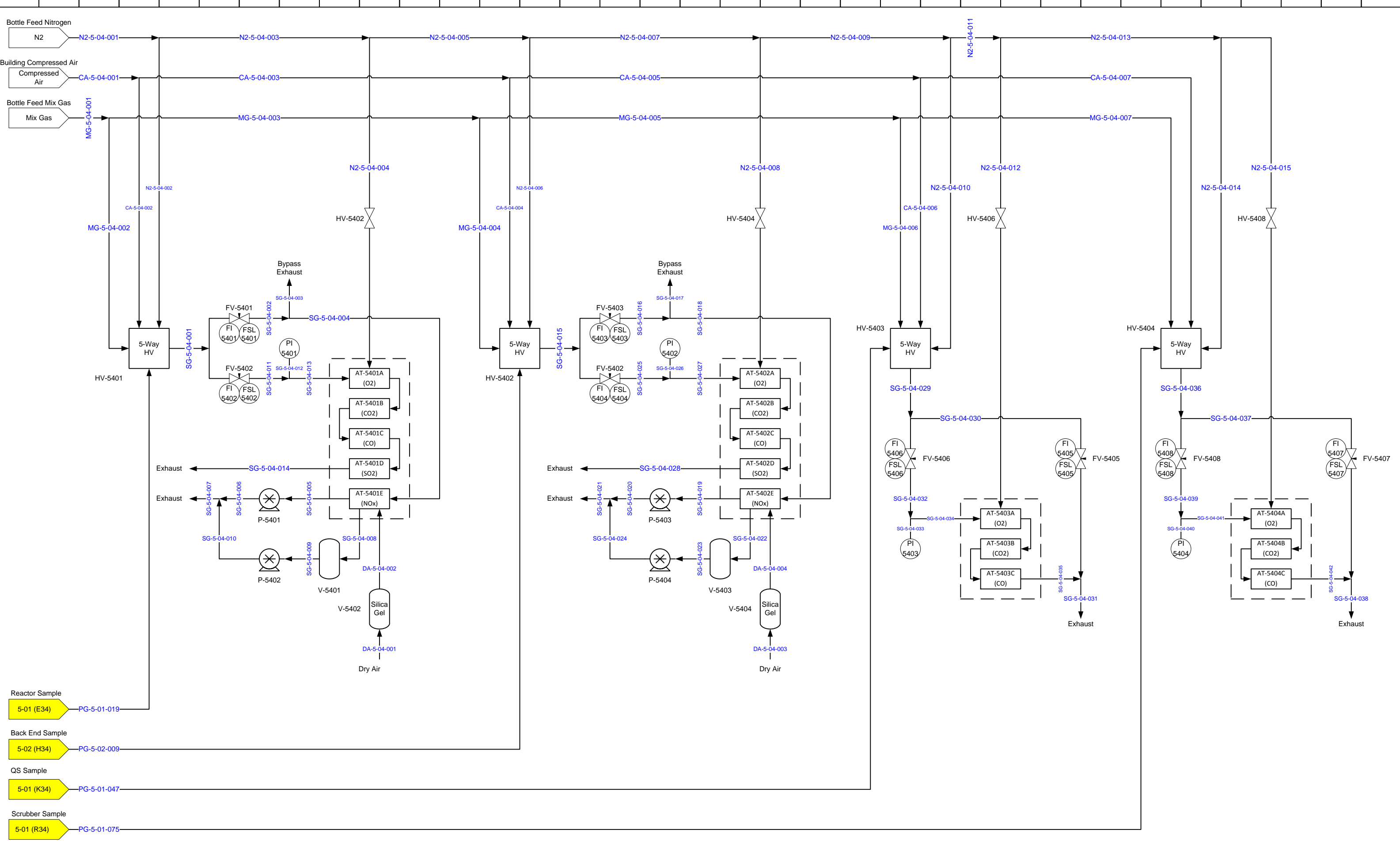


REV.	DESCRIPTION	DATE	BY	DRAWN BY:	APPROVED BY:	ISSUED:	SCALE:
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.				
1.06	Phase 2 Draft	2015/06/15	S.C.				
1.05	Phase 2 Draft	2015/02/10	S.C.				
1.04	Phase 2 Draft	2014/12/10	S.C.				
1.03	Phase 2 Draft	2014/10/29	S.C.				
1.02	Phase 2 Draft	2014/08/14	S.C.				

DRAWING NO		SHEET NO	REVISION NO
OSLI_P2_P&ID		5-03	1.07

OSLI Phase II – P&ID – Liquid Sampling

DRAWING NO	SHEET NO	REVISION NO
OSLI_P2_P&ID	5-03	1.07



- Reactor Sample
5-01 (E34) PG-5-01-019
- Back End Sample
5-02 (H34) PG-5-02-009
- QS Sample
5-01 (K34) PG-5-01-047
- Scrubber Sample
5-01 (R34) PG-5-01-075

REV.	DESCRIPTION	DATE	BY	DRAWN BY:	APPROVED BY:	OSLI Phase II – P&ID – Analyzer Rack	DRAWING NO OSLI_P2_P&ID	SHEET NO 5-04	REVISION NO 1.07
1.07	Phase 2 TSSA Submission	2016/02/11	S.C.						
1.06	Phase 2 Draft	2015/06/15	S.C.						
1.05	Phase 2 Draft	2015/02/10	S.C.						
1.04	Phase 2 Draft	2014/12/10	S.C.						
1.03	Phase 2 Draft	2014/10/29	S.C.						
1.02	Phase 2 Draft	2014/08/14	S.C.						
				ISSUED:					
				SCALE:	NONE				