

NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "00" FOR COMMON PACKAGE THEREFORE, CONSIDER "11" FOR UNIT 1, "12" FOR UNIT 2, "13" FOR UNIT 3.

02. SCOPE

VENDOR | EPC V : BHI
 E : EPC

03. CODE LIMIT PIPING

A : BOILER PROPER
B : BEP
C : NBEF

04. CCC : CHEMICAL CLEANING CONNECTION

05. : STEAM SAMPLING NOZZLE

06. LOCATE HRSG DRUM INTERMITTENT AND CONTINUOUS BLOWDOWN VALVES AS CLOSE AS PRACTICAL TO BLOWDOWN TANK.

07. : CONNECTION FOR VENT FUNNEL DRAIN

08. : LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

09. IT SHALL BE COMPATIBLE FOR TUBE CONNECTION.
(BOP TUBE SIZE : 12.7mm (1/2"))

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT : PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER : SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY : SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT : FICHTNER FICHTNER GMBH & Co. KG

EPC CONTRACTOR CONSORTIUM : SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERBILITY

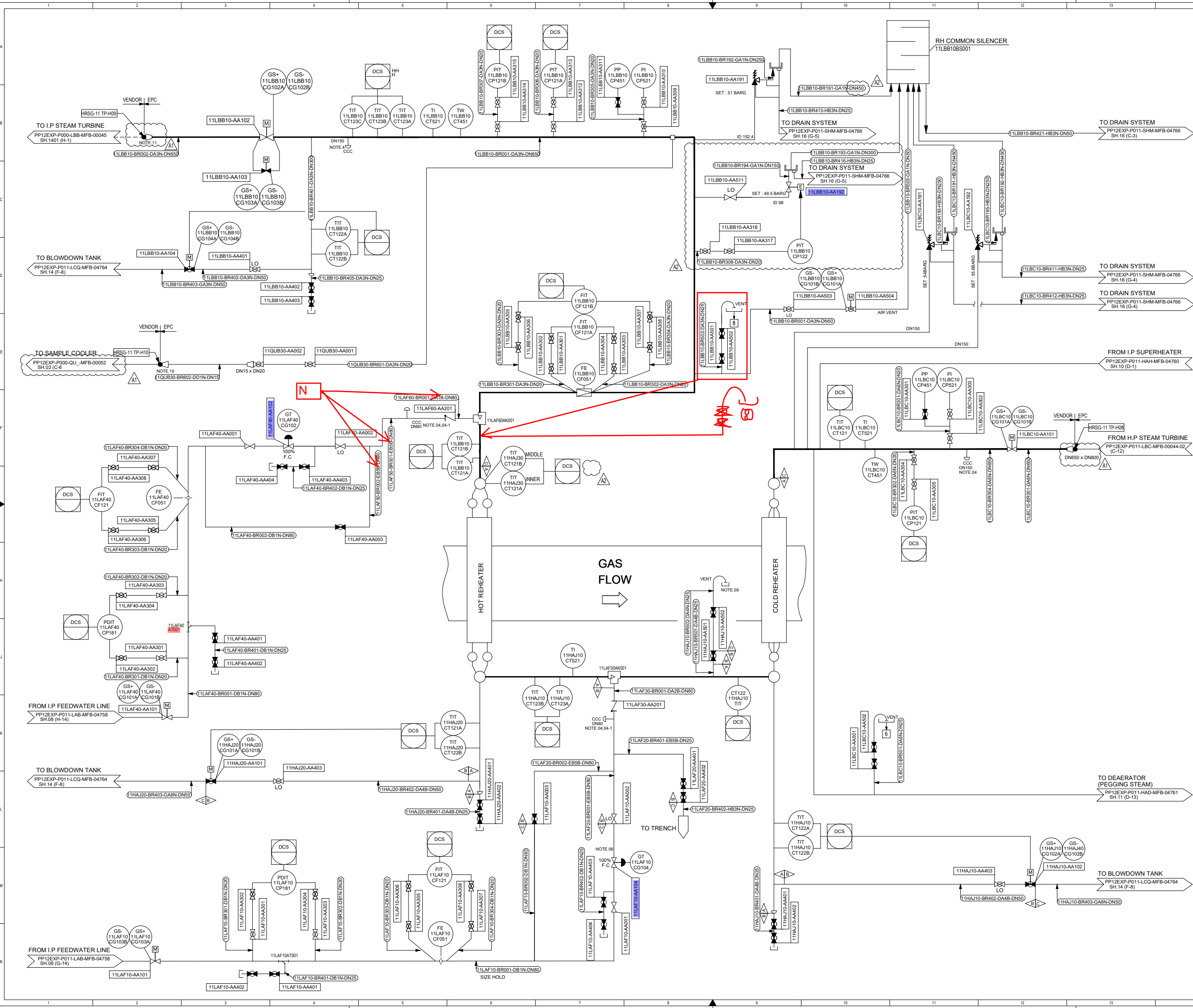
SUB SUPPLIER : BHI CO. LTD.

DATE	NAME	TITLE
07-MAR-25	KJLEE	
07-MAR-25	KJLEE	
07-MAR-25	WJCHOI	
07-MAR-25	SHYOO	

HRSG P&I DIAGRAM FOR H.P. STEAM DRUM SYSTEM

DRG. NO.: PP12EXP-P011-HAD-MFB-04755 SCALE: None SHT. 05 OF 18 REV. A2

As 11 (8mm x 84mm)



NOTE:

- THE GROUP & UNIT CODE ON DRAWING SHOW "00" FOR COMMON PACKAGE. THEREFORE, CONSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.
- SCOPE
- CODE LIMIT PIPING
- CCC: CHEMICAL CLEANING CONNECTION
04-1: FOR PRESSURE TEST PROVISION AS WELL
- STEAM SAMPLING NOZZLE
- TCV SHALL BE LOCATED LOWER THAN SPRAY NOZZLE
- CONNECTION FOR VENT FUNNEL DRAIN
- LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK
- THE HEIGHT/ST POINT VENT (IT WILL BE CLOSED WITH TREADED CAP)
- IT SHALL BE COMPATIBLE FOR TUBE CONNECTION
(BOP TUBE SIZE: 12.7mm(1/2"))
- FOR EACH UNIT TP, REDUCER ITR PIECE END BEVEL SHALL BE CONSIDER AS BELOW.
- UNIT 11/12/13: ID680MM/WT30 X DN650 X AW730

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
A2	25-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO
A1	25-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO
01	25-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO

PROJECT: PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER: SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY: SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT: FICHTNER FICHTNER GMBH & Co. KG

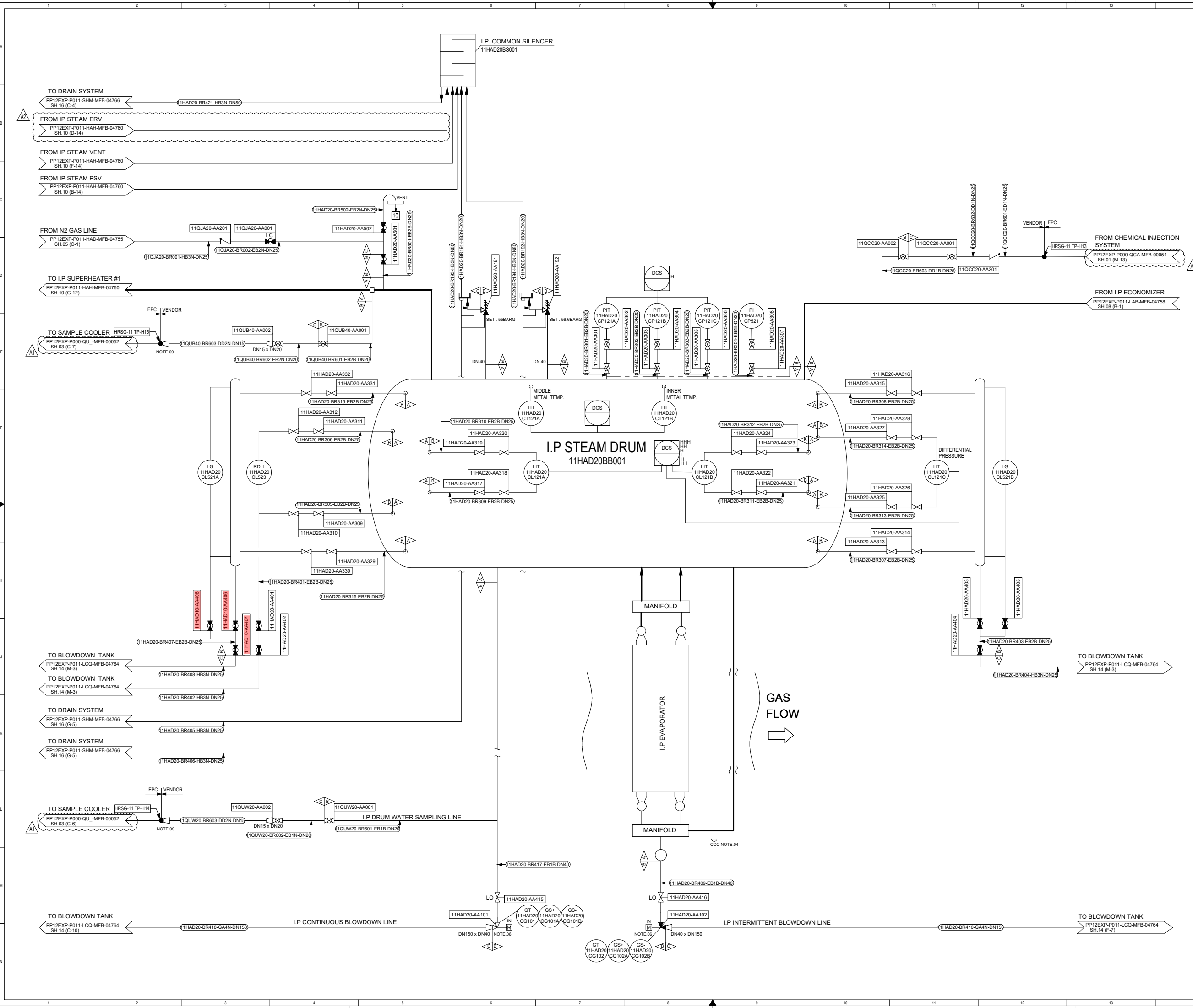
EPC CONTRACTOR CONSORTIUM: SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERLITY

SUB SUPPLIER: BMT CO., LTD.

PREPARED: 07-MAR-25 KJLEE
DESIGNED: 07-MAR-25 KJLEE
CHECKED: 07-MAR-25 WJCHOI
APPROVED: 07-MAR-25 SHYOO

HRSG P&I DIAGRAM FOR REHEATER SYSTEM

DRG. NO.: PP12EXP-P011-HAJ-MFB-04757 SCALE: None SHT: 07 OF 18 REV: A2



NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1.
THEREFORE, CONSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.

02. SCOPE

VENDOR | EPC V: BHI
E: EPC

03. CODE LIMIT PIPING

A: BOILER PROPER
B: BEP
C: NBEF

04. CCC: CHEMICAL CLEANING CONNECTION

05. □: STEAM SAMPLING NOZZLE

06. LOCATE HRSG DRUM INTERMITTENT AND CONTINUOUS BLOWDOWN AS CLOSE AS PRACTICAL TO BLOWDOWN TANK

07. [X]: CONNECTION FOR VENT FUNNEL DRAIN (REFER TO SH.16)

08. [Symbol]: LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

09. IT SHALL BE COMPATIBLE FOR TUBE CONNECTION.
(COP TUBE SIZE: 12.7mm (1/2"))

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT: PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER: SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY: SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT: FICHTNER FICHTNER GMBH & Co. KG

EPC CONTRACTOR CONSORTIUM: SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERBILITY

SUB SUPPLIER: DOOSAN CO., LTD.

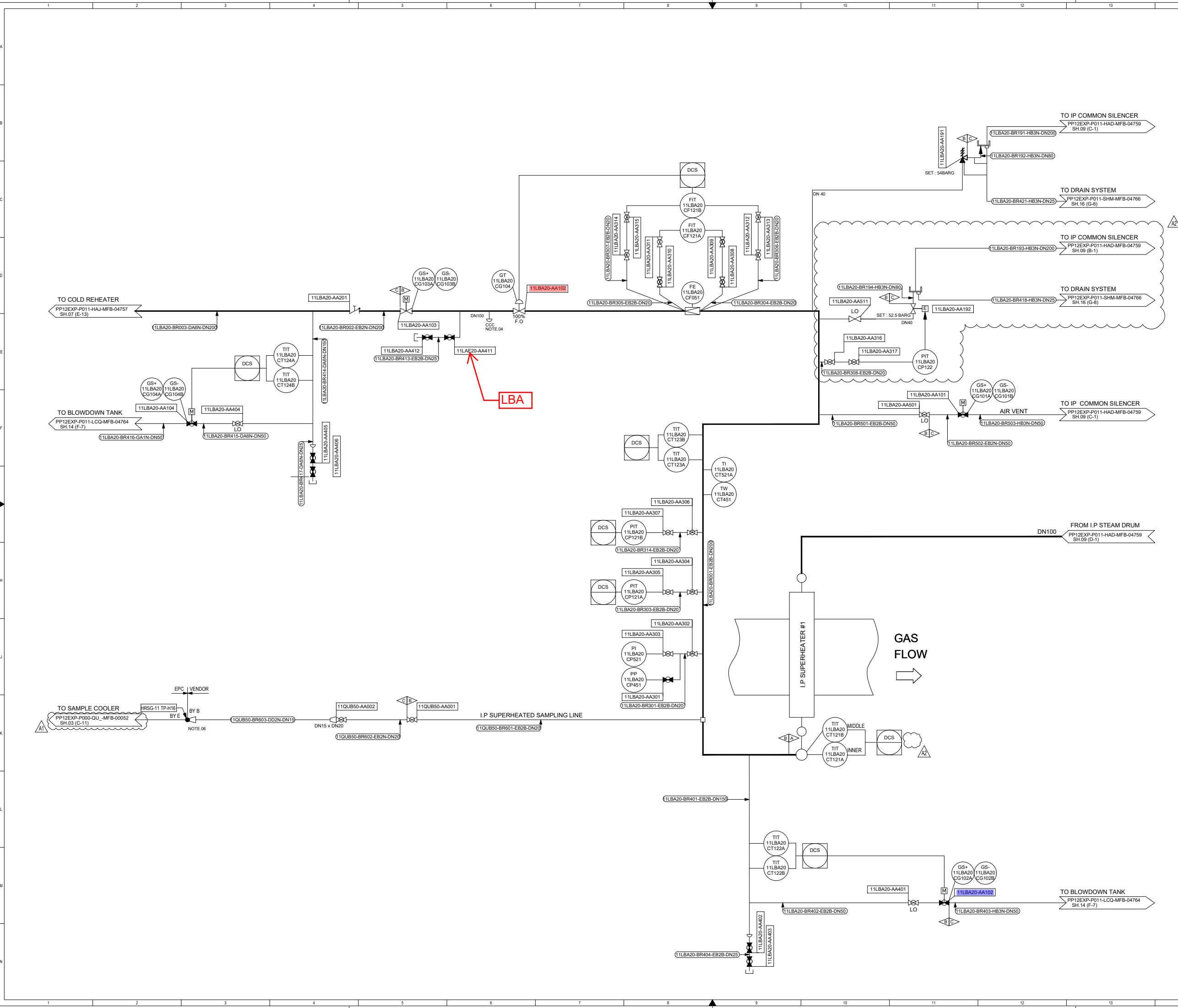
DATE	NAME	TITLE:
07-MAR-25	K.J.LEE	HRSG P&I DIAGRAM FOR I.P. STEAM DRUM SYSTEM
07-MAR-25	K.J.LEE	
07-MAR-25	W.J.OHOI	
07-MAR-25	S.H.YOO	

DRG. NO.: PP12EXP-P011-HAD-MFB-04759

SCALE: None

SHT. 09 OF 18

REV. A2



NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1. THEREFORE, CONSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.

02. SCOPE

VENDOR: EPC V: BHI E: EPC

03. CODE LIMIT PIPING

A: BOILER PROPER
B: BEP
C: NBEF

04. CCC: CHEMICAL CLEANING CONNECTION

05. : LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

06. IT SHALL BE COMPATIBLE FOR TUBE CONNECTION. (BOP TUBE SIZE : 12.7mm(1/2"))

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT: PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER: SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY: SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT: FICHTNER FICHTNER GMBH & Co. KG

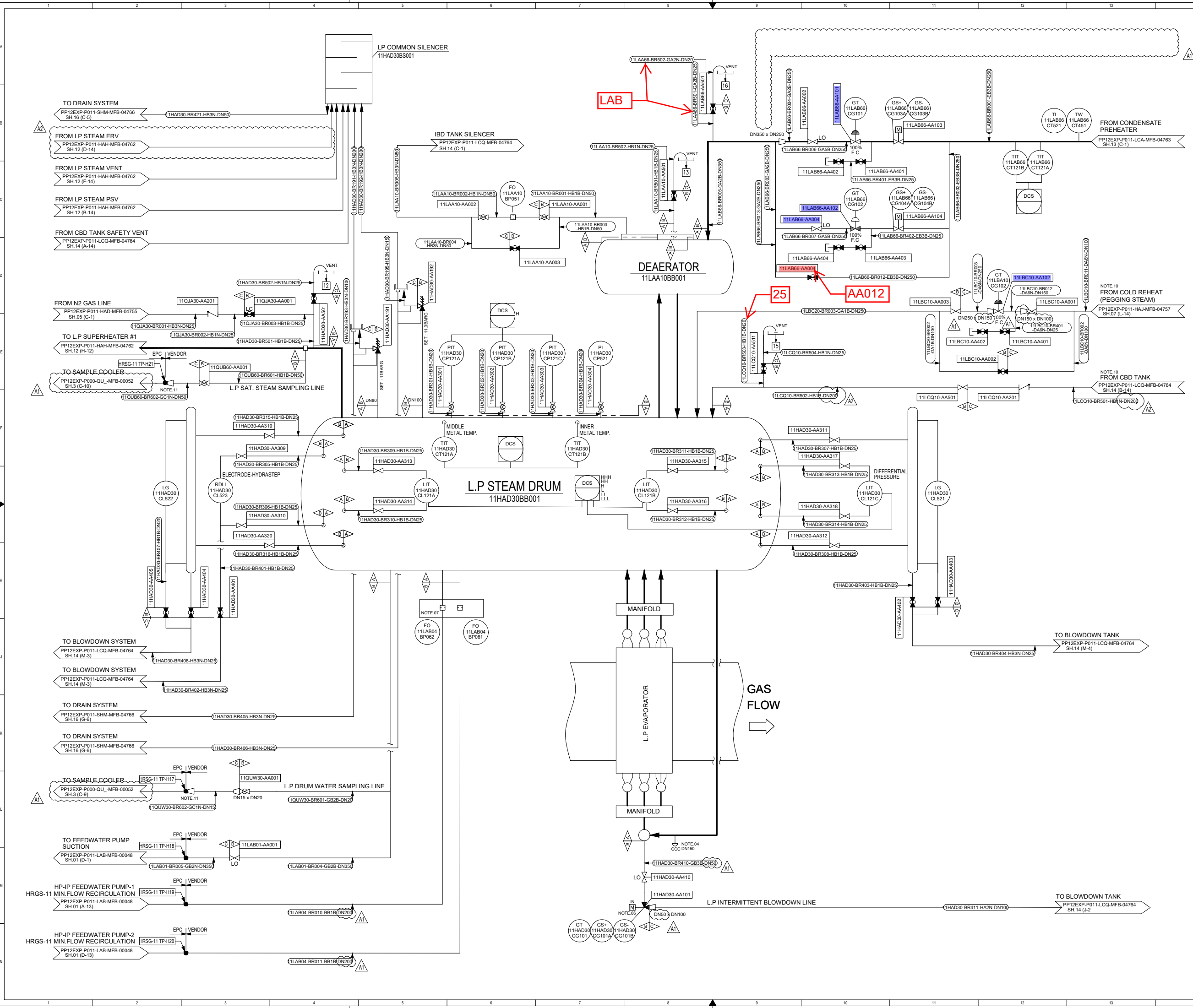
EPC CONTRACTOR CONSORTIUM: SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERBILITY

SUB SUPPLIER: DOOSAN CO., LTD.

DATE	NAME	TITLE
07-MAR-25	K.J.LEE	
07-MAR-25	K.J.LEE	
07-MAR-25	W.J.OHOI	
07-MAR-25	S.H.YOO	

HRSG P&I DIAGRAM FOR I.P. SUPERHEATER SYSTEM

DRG. NO.: PP12EXP-P011-HAH-MFB-04760 SCALE: None SHEET: 10 OF 18 REV: A2



NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1. THEREFORE, CONSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.
02. SCOPE
VENDOR EPC V: BHI
E: EPC
03. CODE LIMIT PIPING
A: BOILER PROPER
B: BEP
C: NEEP
04. CCC: CHEMICAL CLEANING CONNECTION
05. □: STEAM SAMPLING NOZZLE
06. LOCATE HRSG DRUM INTERMITTENT AND CONTINUOUS BLOWDOWN AS CLOSE AS PRACTICAL TO BLOWDOWN TANK
07. THESE RESTRICT ORIFICES WILL BE SUPPLIED BY OTHERS ALSO, THEY SHALL BE LOCATED AS CLOSE AS POSSIBLE TO LP DRUM.
08. X: CONNECTION FOR VENT FUNNEL DRAIN (REFER TO SH.16)
09. LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK
10. IT IS RECOMMENDED THAT VALVES TO BE LOCATED TO HIGHER POSITION THAN THE LP DRUM NOZZLE TO AVOID CONDENSATE ACCUMULATION.
11. IT SHALL BE COMPATIBLE FOR TUBE CONNECTION. (BOP TUBE SIZE: 15.8mm 5/8")

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT: PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER: SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY: SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT: FICHTNER FICHTNER GMBH & Co. KG

EPC CONTRACTOR CONSORTIUM: SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERLITY

SUB SUPPLIER: BHI CO. LTD.

DATE: 07-MAR-25 NAME: KJLEE TITLE: HRSG P&I DIAGRAM FOR L.P. STEAM DRUM SYSTEM

DESIGNED: 07-MAR-25 WJCHOI

CHECKED: 07-MAR-25 SHYOO

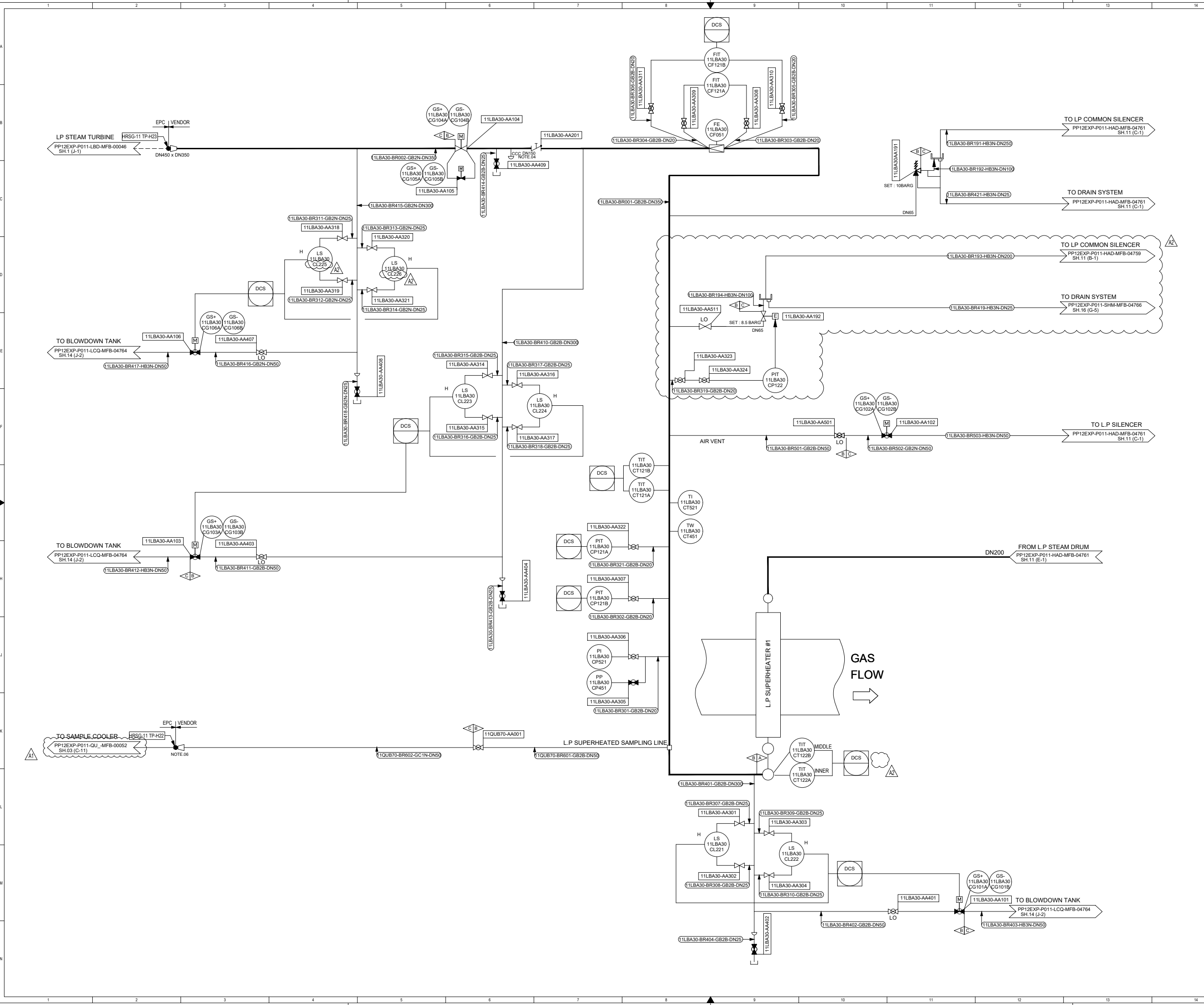
APPROVED: 07-MAR-25 SHYOO

DRG. NO.: PP12EXP-P011-HAD-MFB-04761

SCALE: None

SHT: 11 OF 18

REV. A2



NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1.
THEREFORE, COSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.

02. SCOPE

VENDOR | EPC | V : BHI
E : EPC

03. CODE LIMIT PIPING

A : BOILER PROPER
B : BEP
C : NBP

04. CCC : CHEMICAL CLEANING CONNECTION

05. : LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

06. IT SHALL BE COMPATIBLE FOR TUBE CONNECTION.
(BOP TUBE SIZE : 15.8mm 5/8")

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT : PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER : SAUDI POWER PROCUREMENT COMPANY

PROJECT COMPANY : SAUDI ELECTRICITY COMPANY

PROJECT COMPANY'S CONSULTANT : FICHTNER FICHTNER GMBH & Co. KG

EPC CONTRACTOR CONSORTIUM : SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERBILITY

SUB SUPPLIER : DTH CO. LTD.

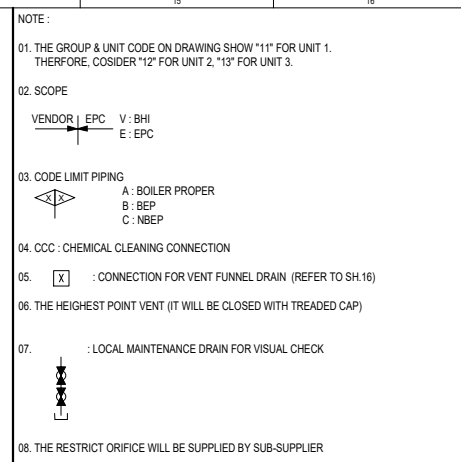
DATE : 07-MAR-25 NAME : K.J.LEE TITLE : HRSG P&I DIAGRAM FOR L.P SUPERHEATER SYSTEM

DESIGNED : 07-MAR-25 K.J.LEE

CHECKED : 07-MAR-25 W.J.OHOI

APPROVED : 07-MAR-25 S.H.YOO

DRG. NO. : PP12EXP-P011-HAH-MFB-04762 SCALE : None SMT: 12 OF 18 REV. A2



HOLD LIST:	
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PROJECT: PP12 CCPP EXPANSION PROJECT

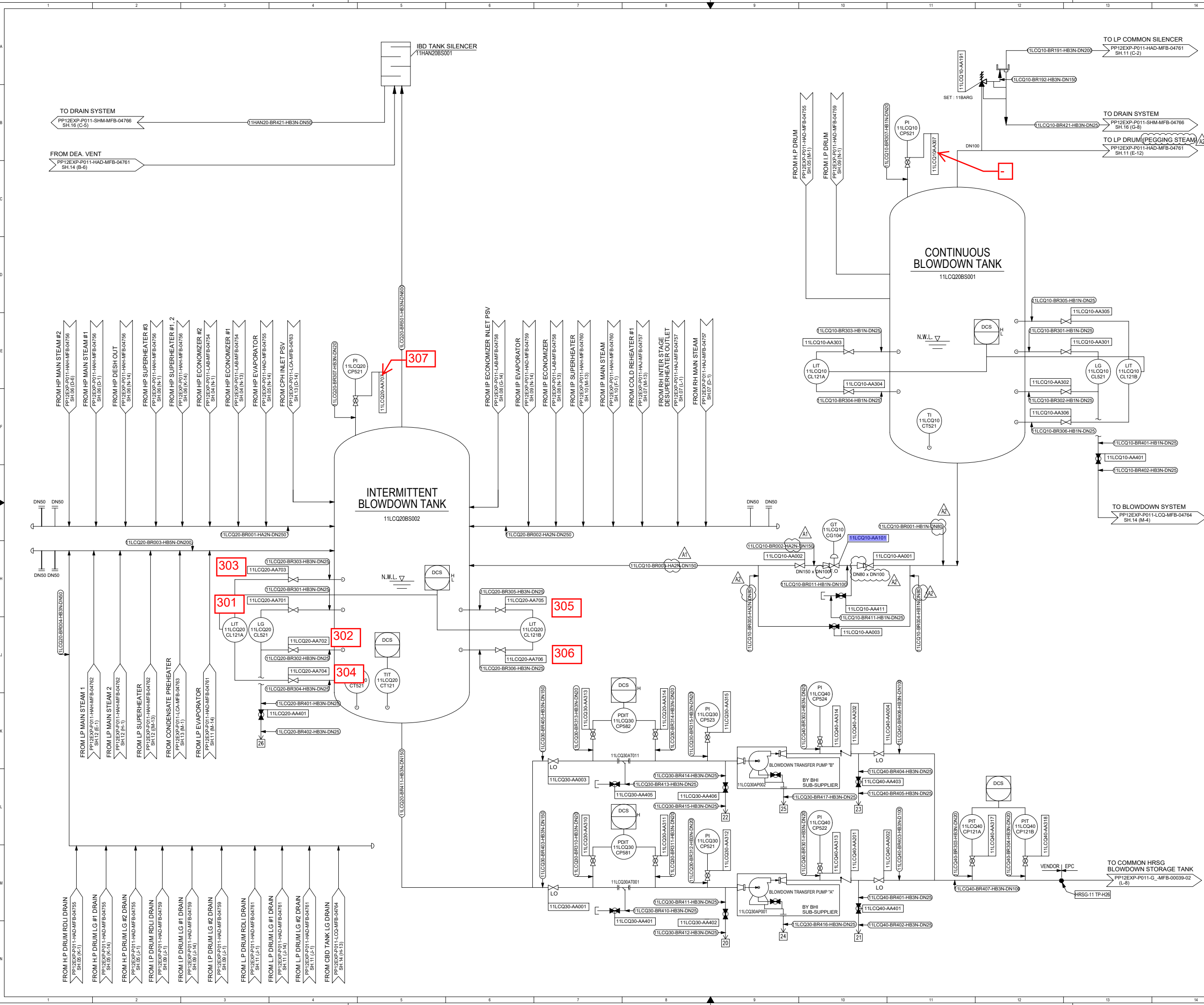
PROJECT COMPANY:  **الشركة السعودية للكهرباء**
Saudi Electricity Company **SAUDI ELECTRICITY COMPANY**

CONSULTANT:	
	SEPCO III ELECTRIC POWER

SUB  WETA-TV

PREPARED	07-MAR-25	K.J.LEE
DESIGNED	07-MAR-25	K.J.LEE

DRG. NO.: PP12EXP-1011-LCA-MFB-04763 A2 SCALE: None SHT: 13 OF 18 REV. A2



NOTE:

- THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1. THEREFORE, COSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.
- SCOPE
- CODE LIMIT PIPING
- CCC: CHEMICAL CLEANING CONNECTION
- LOCATE HRSG START UP AND CONTINUOUS BLOWDOWN VALVES AS CLOSE AS PRACTICAL TO BLOWDOWN TANK.
- LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

REFERENCE DRAWINGS:

DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
A2	25-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO
A1	28-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO
04	07-MAR-25	ISSUE FOR APPROVAL	KJLEE	WJCHOI	SHYOO

PROJECT: PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER:	SAUDI POWER PROCUREMENT COMPANY
PROJECT COMPANY:	SAUDI ELECTRICITY COMPANY
PROJECT COMPANY'S CONSULTANT:	FICHTNER FICHTNER GMBH & Co. KG
EPC CONTRACTOR CONSORTIUM:	SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERLITY
SUB SUPPLIER:	DOOSAN ENERLITY

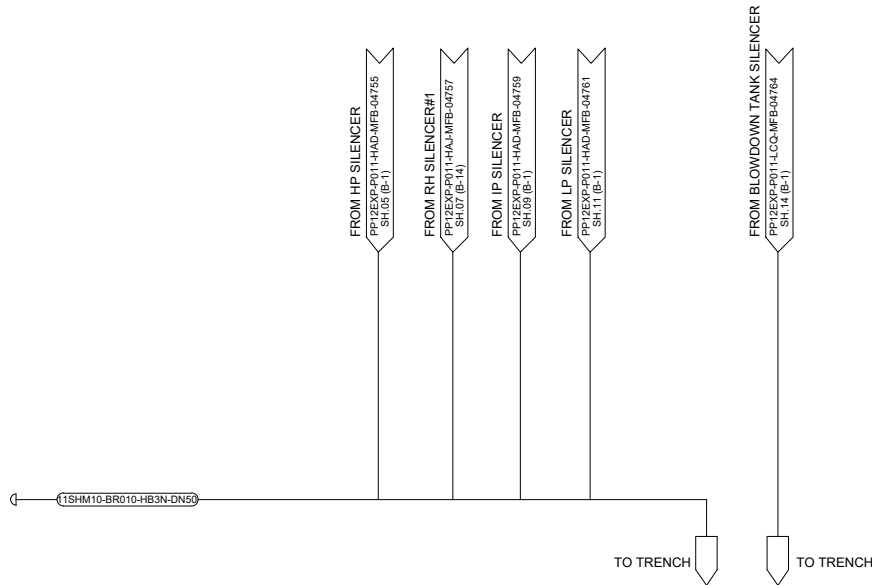
DATE: 07-MAR-25
NAME: KJLEE
TITLE: HRSG P&I DIAGRAM FOR BLOWDOWN TANK SYSTEM

PREPARED: 07-MAR-25
DESIGNED: 07-MAR-25
CHECKED: 07-MAR-25
APPROVED: 07-MAR-25

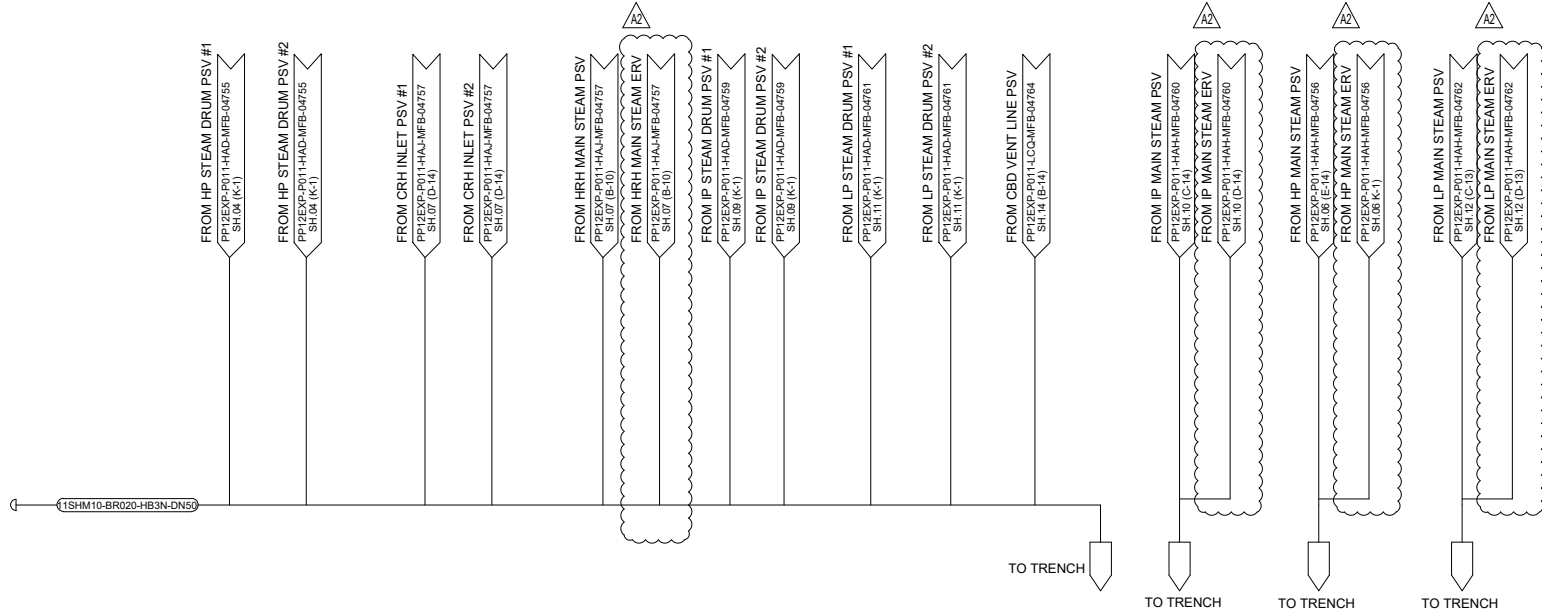
DRG. NO.: PP12EXP-P011-LCQ-MFB-04764

SCALE: None
SHT: 14 OF 18
REV: A2

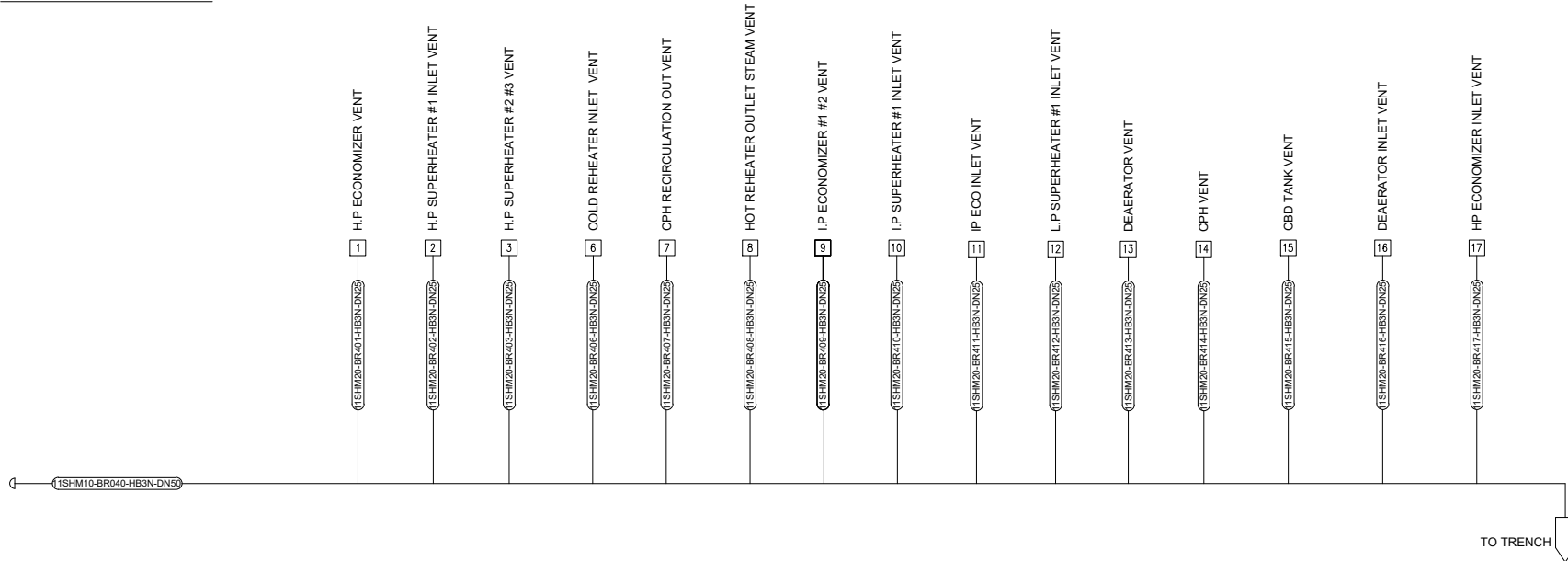
SILENCER DRAIN LINE



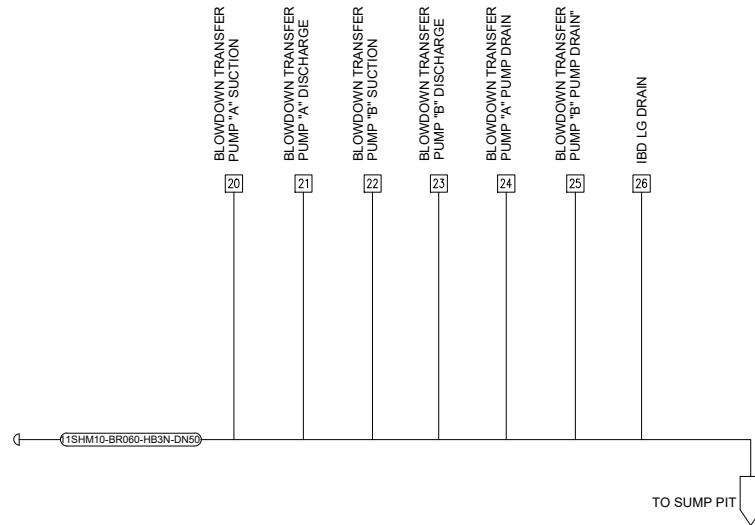
PRESSURE SAFETY VALVE DRAIN LINE



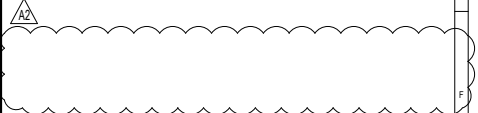
FUNNEL DRAIN LINE



IBD TANK AREA DRAIN LINE



- NOTE :
01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1.
THEREFORE, COSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.
02. SCOPE
- VENDOR | EPC V : BHI
E : EPC
03. CODE LIMIT PIPING
- A : BOILER PROPER
B : BEP
C : NBEF
04. CCC : CHEMICAL CLEANING CONNECTION



REFERENCE DRAWINGS:	
DRAWING NO.	DRAWING TITLE

HOLD LIST:

REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT :		PP12 CCPP EXPANSION PROJECT	
PRINCIPAL BUYER:		SAUDI POWER PROCUREMENT COMPANY	
PROJECT COMPANY:		SAUDI ELECTRICITY COMPANY	
PROJECT COMPANY'S CONSULTANT:		FICHTNER GMBH & Co. KG	
EPC CONTRACTOR CONSORTIUM:	 	SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERBILITY	
SUB SUPPLIER:		BHI CO., LTD.	
DATE	NAME	TITLE:	
07-MAR-25	K.J.LEE	HRSG_P&I DIAGRAM FOR DRAIN SYSTEM	
07-MAR-25	K.J.LEE		
07-MAR-25	W.J.CHOI		
07-MAR-25	S.H.YOO		
ORG. NO. : PP12EXP-P011-SHM-MFB-04766		A2	SCALE : None
		SHT: 16	OF 18
		REV. A2	

NOTE:

01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1 THEREFORE, COSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.

02. SCOPE

VENDOR | EPC

V: BHI
E: EPC

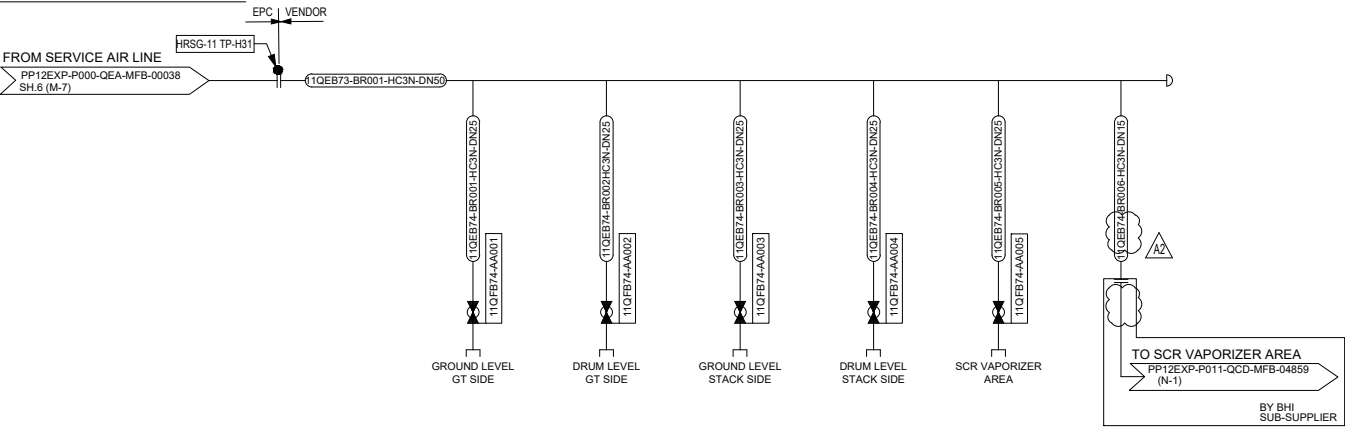
03. CODE LIMIT PIPING

A: BOILER PROPER
B: BEP
C: NBP

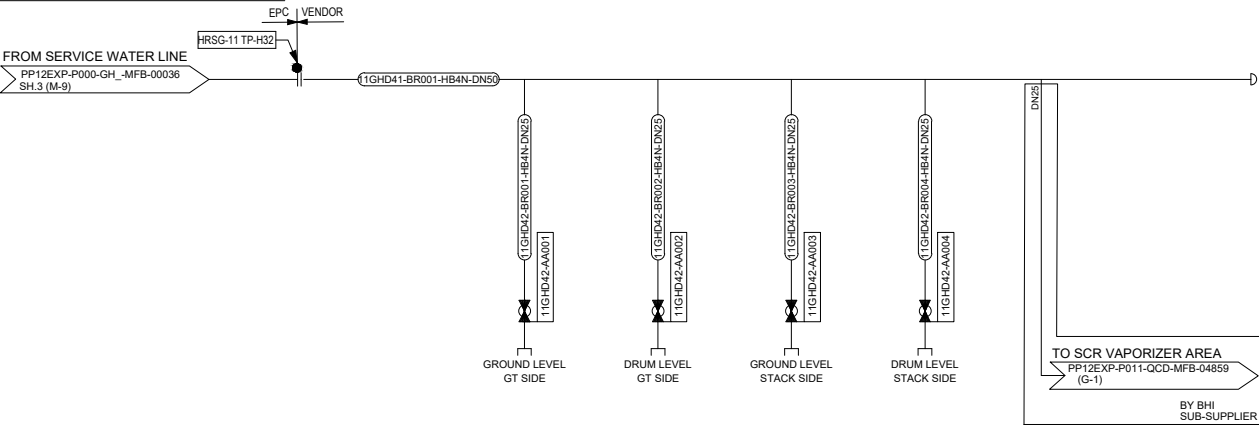
04. : LOCAL MAINTENANCE DRAIN FOR VISUAL CHECK

[illegible]

SERVICE AIR SYSTEM



SERVICE WATER SYSTEM



NOTE :
01. THE GROUP & UNIT CODE ON DRAWING SHOW "11" FOR UNIT 1.
THEREFORE, COSIDER "12" FOR UNIT 2, "13" FOR UNIT 3.
02. SCOPE
VENDOR | EPC V : BHI
E : EPC
03. CODE LIMIT PIPING
A : BOILER PROPER
B : BEP
C : NBEP

REFERENCE DRAWINGS:	
DRAWING NO.	DRAWING TITLE

HOLD LIST:	

A2	25-MAR-25	ISSUE FOR APPROVAL	K.J.LEE	W.J.CHOI	S.H.YOO
A1	28-MAR-25	ISSUE FOR APPROVAL	K.J.LEE	W.J.CHOI	S.H.YOO
04	07-MAR-25	ISSUE FOR APPROVAL	K.J.LEE	W.J.CHOI	S.H.YOO
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

PROJECT : PP12 CCPP EXPANSION PROJECT

PRINCIPAL BUYER:	SAUDI POWER PROCUREMENT COMPANY
PROJECT COMPANY:	SAUDI ELECTRICITY COMPANY
PROJECT COMPANY'S CONSULTANT:	FICHTNER GMBH & Co. KG
EPC CONTRACTOR CONSORTIUM:	SEPCO III ELECTRIC POWER CONSTRUCTION CO. LTD. DOOSAN ENERABILITY
SUB SUPPLIER:	BHI CO., LTD.

PREPARED	07-MAR-25	K.J.LEE
DESIGNED	07-MAR-25	K.J.LEE
CHECKED	07-MAR-25	W.J.CHOI
APPROVED	07-MAR-25	S.H.YOO

HRSG_P&I DIAGRAM FOR UTILITY SYSTEM (2/2)

DRG. NO.: PP12EXP-P011-GHD-MFB-04768

SCALE : None

SHT: 18 OF 18

REV: A2