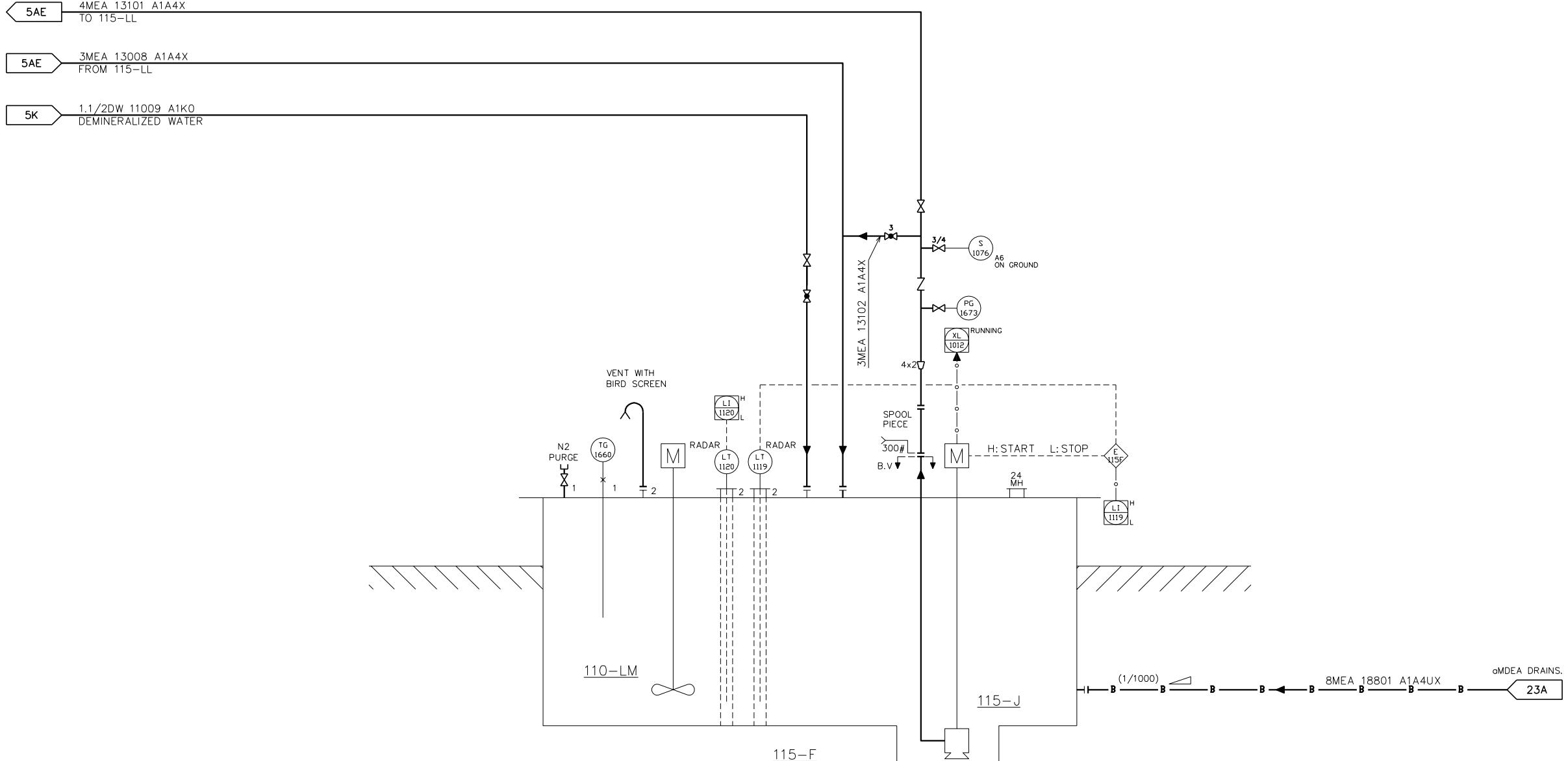


1. FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.

| | |
|----------------------|------------------------------|
| 110-LM | |
| oMDEA SOLUTION MIXER | |
| DES./OPER.TEMP | °C 140/20-37;37 |
| DES./OPER.PRESS | kg/cm ² G F.L/ATM |
| MATERIAL | 304 SS |
| SPEED | RPM BV |
| POWER | kW 2.2 |

| 115-F aMDEA SOLUTION SUMP | | |
|------------------------------|----------------------|-----------|
| DES. /OPER. TEMP. | °C | 140/37 |
| DES. /OPER. PRESS. | kg/cm ² G | F.L./ATM |
| INSULATION/THICK. | mm | NO/- |
| MATERIAL | CS | |
| DIMENSION | (IDxH) mm | 4000x3500 |
| VOLUME | m ³ | 40.2 |



| | | |
|---------------------|----------------------|-----------|
| 115-J | | |
| oMDEA | SUMP | PUMP |
| SEAL | PLAN | 02/61 |
| DESIGN CAPACITY | m ³ /h | 30 |
| SUCT./DISCH. | kg/cm ² G | -0.01/2.9 |
| HEAD/NPSHR | m | 28/1.8 |
| TYPE OF SEAL | MECH. SEAL | |
| POWER | KW | 6.4 |
| MAT. CASING/IMPELL. | A351 GR CF3M | |

| B | RE-ISSUED FOR CONSTRUCTION (AFC-3) | TS | ABA | DU | HOW | ANS | HK | US | S | L | 14/11/13 |
|------|------------------------------------|-----|------|------|------|-----|------|-----|-------|------|----------|
| C | RE-ISSUED FOR CONSTRUCTION (AFC-2) | TS | ABA | DU | HOW | AH | HK | US | S | V | 28/09/13 |
| D | RE-ISSUED FOR CONSTRUCTION (AFC-1) | TS | ABA | DU | HOW | AH | HK | US | S | V | 10/04/13 |
| E | ISSUED FOR CONSTRUCTION (ARC) | EB | ABA | DU | RK | RK | SHL | US | S | V | 16/11/13 |
| F | RE-ISSUED FOR APPROVAL (AFD-1) | EB | ABA | DU | RK | U | SHL | US | S | V | 28/09/12 |
| G | ISSUED FOR APPROVAL (AFD) | EB | ABA | DU | RK | U | SHL | US | S | V | 12/09/12 |
| H | ISSUED FOR DETAIL DESIGN (APD-2) | EB | ABA | JAK | YHK | BOP | HNL | SHN | S | V | 14/05/12 |
| REV. | DESCRIPTION | DRW | CHMD | DESQ | CHDZ | APD | APVD | AUT | ISSUE | DATE | |

REVISIONS

PROJECT NAME : KALTIM-5 PROJECT
2500 MTPD AMMONIA AND 3500 MTPD UREA
BONTANG, EAST KALIMANTAN, INDONESIA

CLIENT NAME :

PUPUK KALTIM

KBR Engineering Services by
KBR Technical Services, Inc.

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PIPING & INSTRUMENT FLOW DIAGRAM

aMDEA SOLUTION SUMP

SCALE DWG. NO. K5-01-E1-PD-5AF-T

DOC NO K5-01-E1-PD-033-T SHEET 033/073 REV. 8

DOC. NO. RS-31-EP-1D-000-1 SHEET 300/300 DRAWN