



PLANTAS DE AMONIACO Y UREA,
CARRASCO

LISTA DE CARGAS ELECTRICAS

N° del DOC. PAU-EEL-C-MLL-20101


SAMSUNG ENGINEERING

Rev. 2

Página 1 de 4

LISTA DE CARGAS ELECTRICAS

N° del Contrato : DLG 0304

N° del Proy. de SECL : SC2566

| Rev | Fecha | Estado | Descripción del Estado | Preparado por | Verificado o por | Verificado por | Aprobado por |
|------------------------|--------------|--------|------------------------|-------------------------------------------|------------------|----------------|--------------|
| 2 | 22 Apr. 2014 | IFC | Para Construcción | Julius | T.M.Oh | J.Y.Lim | J.J.Yang |
| 1 | 25 Nov. 2014 | IFC | Para Construcción | Y.W.Kwon | T.M.Oh | J.Y.Lim | J.J.Yang |
| 0 | 31 Mar. 2014 | IFC | Para Construcción | Y.W.Kwon | T.M.Oh | J.Y.Lim | J.J.Yang |
| A | 7 Mar. 2014 | IFA | Para Aprobación | Y.W.Kwon | T.M.Oh | J.Y.Lim | J.J.Yang |
| Revisión del Documento | | | | Página: Total de 4 hojas (Incl. Carátula) | | | |

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|  YPFB Corporación <small>La fuerza que transforma Bolivia</small> | LISTA DE CARGAS ELECTRICAS |  SAMSUNG ENGINEERING |
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ANEXO: LISTA DE CARGAS ELECTRICAS

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|  YPFB Corporación <small>La fuerza que transforma Bolivia</small> | LISTA DE CARGAS ELECTRICAS |  SAMSUNG ENGINEERING |
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1. General

El propósito de este reporte es proporcionar una lista de cargas para los Tableros de Maniobra (Interruptores) y/o Centro de Control de Motores de la Planta de Amoniaco y Urea del proyecto de YPFB Bolivia

2. Anexo

Lista de Cargas Electricas

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  <p>YPFB Corporación <small>La fuerza que transforma Bolivia</small></p> | <p>LISTA DE CARGAS ELECTRICAS</p> |  SAMSUNG ENGINEERING |
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ANEXO: LISTA DE CARGAS ELECTRICAS

GENERAL NOTE FOR ELECTRICAL LOAD LIST

Terms and symbols are used as shown below:

| 0) Department | 1) Area | 2) Substation | 3) Item-No. | 4) Service | 5) BHP (kW) | 6) Rating (kW) | 7) Voltage [V] | 8) User Type | 9) Load Category | 10) Operation Duty | | | 11) Starting Method | Remarks |
|---------------|---------|---------------|-------------|--------------------|-------------|----------------|----------------|--------------|------------------|--------------------|----------------|--------------|---------------------|---------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| Mech.R | UT & CT | UT | 341-JM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |

0. Department : Indicate the information originator

1. Area : Indicate the location of equipment as described

2. Substation : Indicate the location of Power source

- Abbreviation (For No. 1 & 2)

UT : Utility area

CT : Cooling Tower area

TT : Transfer Tower

UBS : Urea Bulk Storage

Bagging : Urea Bagging House

RWI : River water intake area

MCB : Main Control Building

MW : Maintenance Workshop

GYM : Gym & Dressing Building

BLD : Building

S/S : Substation

3. Item No. : Indicate the item No.

4. Service : Indicate the Service Name.

5. BHP(kW) : Indicate the Brake horse power for Motor shaft confirmed by Vendor

- Mechanical power input to drive shaft to rated output from driven equipment or absorbed electrical power for non-motor loads

6. Rating (kW) : Indicate the Motor or Feeder rated capacity

- Motor nameplate of feeder power / current rating

7. Voltage [V] : Indicate the Equipment or Motor rated Voltage

8. User Type

SCIM

- Squirrel-Cage Induction Motor

WRI

- Wound Rotor Induction Motor

SYN

- Synchronous Motor

DCM

- Direct-Current Motor

VFD

- Variable-Speed Drive System

ERH

- Electric Resistance Heater

PUS

- Plant Utility System

PUE

- Packaged Unit Equipment

MOV

- Motor Operated Valve

FDR

- Feeder Unit

9. Load Category

NL

- Normal Load

CL

- Critical Load (UPS Supply)

EML

- Emergency Load (Emergency Supply during Emergency shut down)

10. Operation Duty

CO

- Continuous Operation

CS

- Continuous Standby

IO

- Intermittent Operation

N/A

- Not used

11. Starting Method

DOL

- Direct On Line

Y-D

- Star / Delta

Reactor

- Reactor Starting

VFD

- VFD Starting

1) VFD Operation

2) VFD only for start (with By-pass)

SOFT

- Soft starting

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|-------------|-------------|------------------|-------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|--------------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | CT | UTILITY S/S | 341-JM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 341-JAM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 341-JBM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 341-JCM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CO | CO | N/A | VFD | VFD ONLY FOR START |
| | CT | UTILITY S/S | 341-JDM | COOLING WATER PUMP | 1010.0 | 1150.0 | 6600 | SCIM | NL | CS | CS | N/A | VFD | VFD ONLY FOR START |
| | CT | UTILITY S/S | 301-L-JM01 | AMMONIA COMPRESSOR FOR AMMONIA TANK BOG PACKAGE | 188.0 | 210.0 | 6600 | SCIM | EML | CO | N/A | CO | DOL | |
| | UTILITY | UTILITY S/S | 311-BA-BM01 | F.D FAN FOR AUXILIARY BOILER | 130.2 | 150.0 | 6600 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-BB-BM01 | F.D FAN FOR AUXILIARY BOILER | 130.2 | 150.0 | 6600 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-JM | MP BFW PUMP | 354.0 | 420.0 | 6600 | SCIM | EML | CO | CO | CO | DOL | |
| | UTILITY | UTILITY S/S | 311-JAM | MP BFW PUMP | 354.0 | 420.0 | 6600 | SCIM | EML | CS | CS | CS | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01A | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | CO | N/A | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01B | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | CO | N/A | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01C | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | CS | N/A | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01D | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | CS | N/A | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01E | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 341-CT-BM01F | FAN FOR COOLING TOWER | 187.2 | 220.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 391-JM | BACK-UP AIR COMPRESSOR | 380.3 | 410.0 | 6600 | SCIM | EML | CS | CO | CS | DOL | |
| | CT | UTILITY S/S | 402-J-LCP | LCP FOR FIRE WATER PUMP MOTOR | 123.0 | 160.0 | 6600 | FDR | EML | - | - | - | N/A | |
| | CT | - | 402-JM | FIRE WATER MOTOR DRIVEN PUMP | 123.0 | 160.0 | 6600 | (SCIM) | EML | IO | N/A | IO | DOL | FED FROM LCP |
| | CT | UTILITY S/S | 342-JM | EMERGENCY COOLING WATER PUMP | 158.6 | 180.0 | 6600 | SCIM | EML | CO | CO | CO | DOL | |
| | CT | UTILITY S/S | 342-JAM | EMERGENCY COOLING WATER PUMP | 158.6 | 180.0 | 6600 | SCIM | EML | CS | CS | CS | DOL | |
| | CT | UTILITY S/S | 401-J-LCP | LCP FOR JOCKEY PUMP | 20.85 | 30.00 | 480 | FDR | EML | - | - | - | N/A | |
| | CT | - | 401-JM | FIRE WATER JOCKEY PUMP | 20.85 | 30.00 | 480 | (SCIM) | EML | CO | N/A | CO | DOL | FED FROM LCP |
| | CT | UTILITY S/S | 301-L-PM01A | OIL PUMP | 2.23 | 5.50 | 480 | SCIM | EML | CO | CO | CO | DOL | |
| | CT | UTILITY S/S | 301-L-PM01B | OIL PUMP | 2.23 | 5.50 | 480 | SCIM | EML | CS | CS | CS | DOL | |
| | CT | UTILITY S/S | 301-L-H01 | ELECTRICAL OIL HEATER | - | 1.00 | 277 | ERH | EML | IO | IO | IO | N/A | |
| | CT | UTILITY S/S | 301-JM | AMMONIA PROCESS PUMP | 75.00 | 132.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 301-JAM | AMMONIA PROCESS PUMP | 75.00 | 132.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 302-JM | AMMONIA BOOSTER BLOWER | 26.00 | 37.00 | 480 | SCIM | NL | CO | N/A | N/A | VFD | VFD OPERATION |
| | CT | UTILITY S/S | 302-J-BM01 | VENTILATION FAN | 0.14 | 0.40 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | CT | UTILITY S/S | 304-JM | CONDENSATE PUMP FOR 302-F | 12.60 | 18.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-L-PM01A | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-L-PM01B | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-L-PM01C | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 311-L-XM01 | MIXER | 0.30 | 0.37 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 312-L-PM01A | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | IO | IO | CO | DOL | |
| | UTILITY | UTILITY S/S | 312-L-PM01B | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | CS | CS | CS | DOL | |
| | UTILITY | UTILITY S/S | 312-L-XM01 | MIXER | 0.30 | 0.37 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | AMMONIA | UTILITY S/S | 312-JM | BLOW DOWN PUMP | 9.20 | 15.00 | 480 | SCIM | EML | CO | CO | CO | DOL | |
| | AMMONIA | UTILITY S/S | 312-JAM | BLOW DOWN PUMP | 9.20 | 15.00 | 480 | SCIM | EML | CS | CS | CS | DOL | |
| | UTILITY | UTILITY S/S | 312-JT-PM01A | LUBE OIL PUMP | 30.00 | 37.00 | 480 | SCIM | EML | CO | CO | CO | DOL | |
| | UTILITY | UTILITY S/S | 312-JT-PM01B | LUBE OIL PUMP | 30.00 | 37.00 | 480 | SCIM | EML | CS | CS | CS | DOL | |
| | UTILITY | UTILITY S/S | 312-JT-PM02 | EMERGENCY LUBE OIL PUMP | 2.80 | 3.00 | 480 | SCIM | EML | CS | CS | CS | DOL | |
| | UTILITY | UTILITY S/S | 312-JT-H01 | OIL TANK HEATER | - | 10.00 | 480 | ERH | NL | IO | IO | N/A | N/A | |
| | UTILITY | UTILITY S/S | 312-JT-XM01 | TURNING GEAR MOTOR | 5.00 | 5.50 | 480 | SCIM | EML | CS | IO | CS | DOL | |
| | UTILITY | UTILITY S/S | 312-JT-BM01 | OIL VAPOR EXTRACTION FAN | 0.65 | 0.75 | 480 | SCIM | EML | CO | CO | CO | DOL | |
| | UTILITY | UTILITY S/S | 312-JTG-SH | GENERATOR HEATER | - | 2.56 | 277 | ERH | EML | IO | IO | IO | N/A | |
| UTILITY | UTILITY S/S | 312-JT-PM03 | JACKING OIL PUMP | 3.80 | 4.00 | 480 | SCIM | EML | IO | IO | IO | DOL | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks | |
|-----------------------|-------------|-------------|-------------|-----------------------------------|------------------------------------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------|--------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | | |
| MECH. R (ROTATING) | UTILITY | UTILITY S/S | 313-L-PM01A | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | IO | IO | IO | DOL | | |
| | UTILITY | UTILITY S/S | 313-L-PM01B | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | CS | CS | CS | DOL | | |
| | UTILITY | UTILITY S/S | 318-JM | CONDENSATE PUMP FOR 313-JTC (STG) | 45.30 | 55.00 | 480 | SCIM | EML | CO | CO | CO | DOL | | |
| | UTILITY | UTILITY S/S | 318-JAM | CONDENSATE PUMP FOR 313-JTC (STG) | 45.30 | 55.00 | 480 | SCIM | EML | CS | CS | CS | DOL | | |
| | CT | UTILITY S/S | 331-L-PM01A | NaOH INJECTION PUMP | 0.05 | 0.40 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM01B | NaOH INJECTION PUMP | 0.05 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM02A | NaOCI INJECTION PUMP | 0.06 | 0.40 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM02B | NaOCI INJECTION PUMP | 0.06 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM03A | Al2(SO4)3 INJECTION PUMP | 0.08 | 0.40 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM03B | Al2(SO4)3 INJECTION PUMP | 0.08 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM04A | A-POLYMER INJECTION PUMP | 0.41 | 0.75 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM04B | A-POLYMER INJECTION PUMP | 0.41 | 0.75 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM05A | C-POLYMER INJECTION PUMP | 0.25 | 0.40 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM05B | C-POLYMER INJECTION PUMP | 0.25 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM06A | SLUDGE TRANSFER PUMP | 1.50 | 3.70 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM06B | SLUDGE TRANSFER PUMP | 1.50 | 3.70 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM07A | THICKENED SLUDGE TRANSFER PUMP | 1.50 | 3.70 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM07B | THICKENED SLUDGE TRANSFER PUMP | 1.50 | 3.70 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM08A | DEHYDRATION WATER FEED PUMP | 10.67 | 15.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-PM08B | DEHYDRATION WATER FEED PUMP | 10.67 | 15.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-XM01 | CLARIFIER RAKE | 0.73 | 2.20 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-XM02 | pH ADJUST AGITATOR | 11.76 | 15.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-XM03 | COAGULGATION AGITATOR | 4.95 | 15.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-XM04 | FLOCCULATION AGITATOR | 1.97 | 11.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 331-L-XM05 | THICKENER RAKE | 0.06 | 0.75 | 480 | SCIM | NL | CO | CO | N/A | DOL | | |
| | CT | UTILITY S/S | 30-LP-400 | A-POLYMER DISSOLVING UNIT | | 2.00 | 480 | FDR | NL | CO | CO | N/A | N/A | | |
| | CT | UTILITY S/S | 30-LP-401 | C-POLYMER DISSOLVING UNIT | | 2.00 | 480 | FDR | NL | CO | CO | N/A | N/A | | |
| | CT | UTILITY S/S | 30-LP-400A | DEHYDRATOR PACKAGE | | 10.00 | 480 | FDR | NL | CO | CO | N/A | N/A | | |
| | | - | | 331-L-XM09 | DEHYDRATOR OPERATION VARIATOR | | 0.75 | 480 | (SCIM) | | | | | | FED FROM LCP |
| | | - | | 331-L-XM10 | SLUDGE MIXING VARIATOR | | 0.75 | 480 | (SCIM) | | | | | | FED FROM LCP |
| | | - | | 331-L-XM11 | RECYCLE SYSTEM REDUCER | | 0.75 | 480 | (SCIM) | | | | | | FED FROM LCP |
| | | - | | 331-L-PM12 | WASHING PUMP | 4.29 | 7.50 | 480 | (SCIM) | | | | | | FED FROM LCP |
| | CT | UTILITY S/S | 331-L-H01 | | HEATER FOR NaOH STORAGE TANK | - | 31.00 | 480 | ERH | NL | IO | IO | N/A | N/A | |
| | CT | UTILITY S/S | 332-JM | | TREATED WATER PUMP | 97.78 | 110.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | CT | UTILITY S/S | 332-JAM | | TREATED WATER PUMP | 97.78 | 110.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | CT | UTILITY S/S | 332-L-PM01A | | BACKWASH WATER PUMP FOR MMF | 18.93 | 37.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | CT | UTILITY S/S | 332-L-PM01B | | BACKWASH WATER PUMP FOR MMF | 18.93 | 37.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | CT | UTILITY S/S | 332-L-BM01A | | BACKWASH BLOWER FOR MMF | 11.30 | 15.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | CT | UTILITY S/S | 332-L-BM01B | | BACKWASH BLOWER FOR MMF | 11.30 | 15.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM01A | | H2SO4 INJECTION PUMP FOR C.E | 0.41 | 0.75 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM01B | | H2SO4 INJECTION PUMP FOR C.E | 0.41 | 0.75 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM02A | | H2SO4 INJECTION PUMP FOR M.B.P | 0.41 | 0.75 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM02B | | H2SO4 INJECTION PUMP FOR M.B.P | 0.41 | 0.75 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM03A | | H2SO4 INJECTION PUMP FOR NEU. POND | 0.01 | 0.40 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM03B | | H2SO4 INJECTION PUMP FOR NEU. POND | 0.01 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| UTILITY | UTILITY S/S | 333-L-PM04A | | NaOH INJECTION PUMP FOR A.E | 0.41 | 0.75 | 480 | SCIM | NL | IO | IO | N/A | DOL | | |
| UTILITY | UTILITY S/S | 333-L-PM04B | | NaOH INJECTION PUMP FOR A.E | 0.41 | 0.75 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|-------------|-------------|-------------------------|----------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | UTILITY | UTILITY S/S | 333-L-PM05A | NaOH INJECTION PUMP FOR M.B.P | 0.41 | 0.75 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM05B | NaOH INJECTION PUMP FOR M.B.P | 0.41 | 0.75 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM06A | NaOH INJECTION PUMP FOR NEU. POND | 0.02 | 0.40 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM06B | NaOH INJECTION PUMP FOR NEU. POND | 0.02 | 0.40 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM07A | A/C FILTER BACKWASH PUMP | 7.48 | 22.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM07B | A/C FILTER BACKWASH PUMP | 7.48 | 22.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM08A | REGENERATION WATER PUMP | 11.79 | 15.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM08B | REGENERATION WATER PUMP | 11.79 | 15.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM09A | WASTE WATER TRANSFER PUMP | 20.00 | 30.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-PM09B | WASTE WATER TRANSFER PUMP | 20.00 | 30.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-BM01A | BLOWER FOR DEMIN. PACKAGE | 8.70 | 11.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-BM01B | BLOWER FOR DEMIN. PACKAGE | 8.70 | 11.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 333-L-H01 | HEATER FOR NaOH STORAGE TANK | - | 21.00 | 480 | ERH | NL | IO | IO | N/A | N/A | |
| | CT | UTILITY S/S | 333-JM | SERVICE WATER PUMP | 35.88 | 45.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | CT | UTILITY S/S | 333-JAM | SERVICE WATER PUMP | 35.88 | 45.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 334-JM | DEMINERALIZED WATER PUMP | 122.95 | 139.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 334-JAM | DEMINERALIZED WATER PUMP | 122.95 | 139.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | BLD. AREA | UTILITY S/S | 335-JM | RAW WATER INTAKE PIT PUMP | 71.86 | 90.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | BLD. AREA | UTILITY S/S | 335-JAM | RAW WATER INTAKE PIT PUMP | 71.86 | 90.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 335-L-PM01A | NaOCI INJECTION PUMP | 0.01 | 0.20 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 335-L-PM01B | NaOCI INJECTION PUMP | 0.01 | 0.20 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 335-L-XM01 | NaOCI AGITATOR | 0.07 | 0.75 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | CT | UTILITY S/S | 336-JM | COOLING WATER MAKE-UP PUMP | 51.33 | 75.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | CT | UTILITY S/S | 336-JAM | COOLING WATER MAKE-UP PUMP | 51.33 | 75.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | AMMONIA | UTILITY S/S | 337-JM | OFF SPEC. CONDENSATE RECYCLE PUMP TO AMMONIA | 70.70 | 90.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UTILITY S/S | 338-JM | OFF SPEC. CONDENSATE RECYCLE PUMP FROM UREA | 1.67 | 3.70 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UTILITY | UTILITY S/S | 339-JM | POTABLE WATER PUMP | 17.23 | 37.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 339-JAM | POTABLE WATER PUMP | 17.23 | 37.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | CT | UTILITY S/S | 30-LP-490 | 3D TRASAR PANEL (FOR 343-L PKG) | | 0.30 | 480 | FDR | NL | IO | IO | N/A | N/A | |
| | CT | - | 343-L-PM01A | SULFURIC ACID INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM01B | SULFURIC ACID INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | CT | - | 343-L-PM02A | OXIDIZING BIOCIDES INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM02B | OXIDIZING BIOCIDES INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | CT | - | 343-L-PM03A | CORROSION INHIBITOR INJECTION PUMP | | 0.03 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM03B | CORROSION INHIBITOR INJECTION PUMP | | 0.03 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | CT | - | 343-L-PM04A | SCALE DISPERSANT INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM04B | SCALE DISPERSANT INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | CT | - | 343-L-PM05A | BROMINE INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM05B | BROMINE INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | CT | - | 343-L-PM06A | BIO DISPERSANT INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | IO | IO | N/A | DOL | |
| | CT | - | 343-L-PM06B | BIO DISPERSANT INJECTION PUMP | | 0.02 | 220 | P.SCIM | NL | CS | CS | N/A | DOL | |
| | UTILITY | UTILITY S/S | 360-JM | DIESEL FUEL UNLOADING PUMP | 2.23 | 5.50 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | UTILITY | UTILITY S/S | 361-JM | DIESEL FUEL TRANSFER PUMP | 0.72 | 2.20 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | CT | UTILITY S/S | 351-JM | WASTE WATER PUMP | 7.31 | 15.00 | 480 | SCIM | NL | IO | IO | N/A | DOL | |
| | CT | UTILITY S/S | 351-JAM | WASTE WATER PUMP | 7.31 | 15.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| CT | UTILITY S/S | 353-L-PM01A | SULFURIC ACID FEED PUMP | 0.25 | 0.37 | 480 | SCIM | NL | IO | IO | N/A | DOL | | |
| CT | UTILITY S/S | 353-L-PM01B | SULFURIC ACID FEED PUMP | 0.25 | 0.37 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| CT | UTILITY S/S | 354-L-H01 | ELECTRICAL HEATER | - | 4.00 | 480 | ERH | NL | IO | IO | N/A | N/A | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|-------------|-------------|------------|------------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | CT | UTILITY S/S | 382-L-H02 | TRIM HEATER | - | 8.00 | 480 | ERH | EML | IO | IO | IO | N/A | |
| | CT | UTILITY S/S | 382-L-H01A | MS REGENERATION HEATER | - | 30.00 | 480 | ERH | NL | IO | IO | IO | N/A | N/A |
| | CT | UTILITY S/S | 382-L-H01B | MS REGENERATION HEATER | - | 30.00 | 480 | ERH | NL | IO | IO | IO | N/A | N/A |
| | CT | UTILITY S/S | 30-LP-421 | LOCAL DISTRIBUTION PANEL FOR 391-J PKG. | | 3.88 | 480 | FDR | EML | CO | N/A | CO | N/A | N/A |
| | UTILITY | UTILITY S/S | 301-JE | MAIN CRANE FOR STG HOUSE | | 22.70 | 480 | FDR | NL | CS | N/A | N/A | N/A | N/A |
| AMMONIA | AMMONIA S/S | 101-J-XM02 | | STARTING MOTOR FOR GAS TURBINE | 445.0 | 450.0 | 6600 | SCIM | NL | IO | N/A | N/A | DOL | |
| UTILITY | AMMONIA S/S | 104-JAM | | HP BFW PUMP | 1360.0 | 1550.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 107-JBM | | SEMI-LEAN SOLUTION PUMP | 1125.0 | 1280.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 107-JCM | | SEMI-LEAN SOLUTION PUMP | 1125.0 | 1280.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 108-JM | | LEAN SOLUTION PUMP | 627.3 | 720.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 108-JAM | | LEAN SOLUTION PUMP | 627.3 | 720.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 131-JXG | | PURIFIER EXPANDER GENERATOR | 123.0 | 390.0 | 6600 | SCIM | NL | IO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 107-JA-XM01 | | HELPER MOTOR FOR 107-JA | 167.0 | 570.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 173-JM | | LTS CATALYST REDUCTION CIRCULATOR | 665.0 | 732.0 | 6600 | SCIM | NL | IO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-H01A | | LUBE OIL TANK HEATER | - | 15.00 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 101-J-H01B | | LUBE OIL TANK HEATER | - | 15.00 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 101-J-BM03A | | MAIN VENTILATION FAN | 126.00 | 132.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-BM03B | | AUX. VENTILATION FAN | 126.00 | 132.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-BM02A | | GT FILTER HOUSE DUST EXTRACTION FAN | 1.90 | 2.20 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-BM02B | | GT FILTER HOUSE DUST EXTRACTION FAN | 1.90 | 2.20 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-BM02C | | GT FILTER HOUSE DUST EXTRACTION FAN | 1.90 | 2.20 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 10-LP-540 | | LCP FOR WASHING WATER SYSTEM | | 21.50 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 101-J-LM01 | | IGV ELECTRICAL ACTUATOR | 2.00 | 4.00 | 480 | FDR | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-TR | | TURBINE IGNITION TRANSFORMER | 1.20 | 1.20 | 277 | FDR | EML | IO | N/A | IO | N/A | |
| AMMONIA | AMMONIA S/S | 101-J-PM02 | | AUX. LUBE OIL PUMP | 67.00 | 75.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-PM03 | | EMERGENCY LUBE OIL PUMP | 13.00 | 15.00 | 480 | SCIM | EML | CS | N/A | CO | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-XM03 | | TURNING DEVICE ELECTRIC MOTOR | 6.50 | 7.50 | 480 | SCIM | EML | IO | N/A | CS | SOFT | |
| AMMONIA | AMMONIA S/S | 101-J-XM04 | | TURNING GEAR MOTOR | 3.60 | 4.00 | 480 | SCIM | EML | IO | N/A | CS | SOFT | |
| AMMONIA | AMMONIA S/S | 101-J-BM01A | | OIL MIST SEPARATOR FAN | 2.20 | 3.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 101-J-BM01B | | OIL MIST SEPARATOR FAN | 2.20 | 3.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 103-J-XM01 | | TURNING GEAR MOTOR FOR 103-J | 0.28 | 0.75 | 480 | SCIM | EML | IO | N/A | IO | DOL | |
| UTILITY | AMMONIA S/S | 104-J-PM02 | | AUXILIARY OIL PUMP | 2.74 | 3.70 | 480 | SCIM | EML | CS | N/A | CO | DOL | |
| UTILITY | AMMONIA S/S | 104-JA-PM02 | | AUXILIARY OIL PUMP | 1.69 | 2.20 | 480 | SCIM | EML | CS | N/A | CO | DOL | |
| UTILITY | AMMONIA S/S | 104-J-H01 | | OIL HEATER | - | 1.00 | 277 | ERH | NL | IO | N/A | N/A | N/A | |
| UTILITY | AMMONIA S/S | 104-JA-H01 | | OIL HEATER | - | 1.00 | 277 | ERH | NL | IO | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 103-J-PM01A | | LUBE OIL PUMP FOR 103-J/JT AND 105-J/JT | 77.60 | 90.00 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| AMMONIA | AMMONIA S/S | 103-J-PM01B | | LUBE OIL PUMP FOR 103-J/JT AND 105-J/JT | 77.60 | 90.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| AMMONIA | AMMONIA S/S | 103-J-PM02 | | EMERGENCY LUBE OIL PUMP FOR 103-J/JT AND 105-J/JT | 12.90 | 18.50 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| AMMONIA | AMMONIA S/S | 103-J-H01 | | ELECTRICAL LUBE OIL HEATER FOR 103-J/JT AND 105-J/JT | - | 45.00 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 103-J-H02 | | BOLT HEATER | - | 2.00 | 277 | ERH | NL | CS | N/A | N/A | N/A | |
| AMMONIA | AMMONIA S/S | 105-J-XM01 | | TURNING GEAR MOTOR FOR 105-J | 0.33 | 0.75 | 480 | SCIM | EML | IO | N/A | IO | DOL | |
| AMMONIA | AMMONIA S/S | 108-L-XM01 | | MIXER | 0.30 | 0.37 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| AMMONIA | AMMONIA S/S | 108-L-PM01A | | DOSING PUMP TO 141-D | 0.18 | 0.37 | 480 | SCIM | EML | IO | N/A | CO | DOL | |
| AMMONIA | AMMONIA S/S | 108-L-PM01B | | DOSING PUMP TO 141-D | 0.18 | 0.37 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| AMMONIA | AMMONIA S/S | 108-L-PM02A | | DOSING PUMP TO 131-C2 | 0.18 | 0.37 | 480 | SCIM | EML | IO | N/A | CO | DOL | |
| AMMONIA | AMMONIA S/S | 108-L-PM02B | | DOSING PUMP TO 131-C2 | 0.18 | 0.37 | 480 | SCIM | EML | CS | N/A | CS | DOL | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|----------|-------------|-------------------------------|---------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | AMMONIA | AMMONIA S/S | 109-L-XM01 | MIXER | 0.30 | 0.37 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 109-L-PM01A | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | IO | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 109-L-PM01B | DOSING PUMP | 0.18 | 0.37 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | AMMONIA S/S | 110-LM | OASE SOLUTION MIXER | 1.78 | 2.20 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 111-JM | OASE SOLUTION TRANSFER PUMP | 11.57 | 15.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 112-JM | CONDENSATE PUMP FOR 103-JTC | 14.80 | 22.00 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 112-JAM | CONDENSATE PUMP FOR 103-JTC | 14.80 | 22.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | AMMONIA S/S | 113-JM | WARM AMMONIA PRODUCT PUMP | 108.30 | 132.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 113-JAM | WARM AMMONIA PRODUCT PUMP | 108.30 | 132.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 115-JM | OASE SUMP PUMP | 12.33 | 18.50 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 110-JM | LP FLASH COLUMN REFLUX PUMP | 60.60 | 75.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 110-JAM | LP FLASH COLUMN REFLUX PUMP | 60.60 | 75.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 117-JM | SEMI-LEAN SOLUTION CIRCULATING PUMP | 77.50 | 90.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 117-JAM | SEMI-LEAN SOLUTION CIRCULATING PUMP | 77.50 | 90.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 120-JM | AMMONIA INJECTION PUMP | 14.70 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | VFD | VFD OPERATION |
| | AMMONIA | AMMONIA S/S | 121-JM | PROCESS CONDENSATE PUMP FOR 142-D1 | 67.20 | 110.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 121-JAM | PROCESS CONDENSATE PUMP FOR 142-D1 | 67.20 | 110.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 122-JM | PROCESS CONDENSATE PUMP FOR 144-D | 2.45 | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 122-JAM | PROCESS CONDENSATE PUMP FOR 144-D | 2.45 | 5.50 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 124-JM | COLD AMMONIA PRODUCT PUMP | 12.87 | 18.50 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 124-JAM | COLD AMMONIA PRODUCT PUMP | 12.87 | 18.50 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | AMMONIA S/S | 126-JM | AMMONIA GAS FLARE KNOCKOUT DRUM PUMP | 2.20 | 5.50 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 131-JX-PM01A | LUBE OIL PUMP | 14.10 | 18.50 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 131-JX-PM01B | LUBE OIL PUMP | 14.10 | 18.50 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | AMMONIA S/S | 131-JX-H01 | OIL HEATER | - | 4.50 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 131-JX-H02 | IGV HEATER | - | 0.20 | 277 | ERH | NL | CO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 160-JM | AMMONIA DIST. COLUMN FEED PUMP | 2.60 | 4.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 160-JAM | AMMONIA DIST. COLUMN FEED PUMP | 2.60 | 4.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 161-JM | HP SCRUBBER FEED PUMP | 13.70 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | VFD | VFD OPERATION |
| | AMMONIA | AMMONIA S/S | 161-JAM | HP SCRUBBER FEED PUMP | 13.70 | 30.00 | 480 | SCIM | NL | CS | N/A | N/A | VFD | VFD OPERATION |
| | AMMONIA | AMMONIA S/S | 175-JM | START-UP H2 RECYCLE COMPRESSOR | 19.90 | 30.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | AMMONIA S/S | 175-J-PM02 | AUX. LUBE OIL PUMP | 0.56 | 0.75 | 480 | SCIM | EML | CS | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 175-J-H01 | ELECTRICAL LUBE OIL HEATER | - | 0.40 | 277 | ERH | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 173-J-PM02 | AUX. LUBE OIL PUMP | 2.23 | 3.70 | 480 | SCIM | EML | CS | N/A | CO | DOL | |
| | AMMONIA | AMMONIA S/S | 173-J-H01 | ELECTRIC LUBE OIL HEATER | - | 8.00 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 173-J-BM01 | VACUUM BLOWER | 0.68 | 0.75 | 480 | SCIM | NL | CO | N/A | N/A | N/A | |
| | UTILITY | AMMONIA S/S | 181-JM | CONDENSATE PUMP FOR 104-JTC | 4.30 | 7.50 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | UTILITY | AMMONIA S/S | 181-JAM | CONDENSATE PUMP FOR 104-JTC | 4.30 | 7.50 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | AMMONIA S/S | 101-JE | MAIN CRANE FOR PROCESS AIR COMPRESSOR HOUSE | | 22.90 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 102-JE | MAIN CRANE FOR COMPRESSOR HOUSE | | 22.90 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| | UREA | UREA S/S | U-GA101AM | AMMONIA FEED PUMP | 758.2 | 920.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA101BM | AMMONIA FEED PUMP | 758.2 | 920.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA102AM | CARBAMATE FEED PUMP | 467.4 | 520.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA102BM | CARBAMATE FEED PUMP | 467.4 | 520.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GB601M | FORCED FAN FOR SPOUTING AIR | 198.0 | 250.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| UREA | UREA S/S | U-GB602M | FORCED FAN FOR FLUIDIZING AIR | 835.0 | 950.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-GB603M | INDUCED FAN FOR DUST SCRUBBER | 1172.0 | 1300.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-GB605M | FORCED FAN FOR PRODUCT COOLER | 297.0 | 350.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|----------|------------|-------------------------------|-----------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|--------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | UREA | UREA S/S | U-GA602AM | NO.1 CIRCULATION PUMP FOR DUST SCRUBBER | 130.4 | 150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA602BM | NO.1 CIRCULATION PUMP FOR DUST SCRUBBER | 130.4 | 150.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA603AM | NO.2 CIRCULATION PUMP FOR DUST SCRUBBER | 125.5 | 150.0 | 6600 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA603BM | NO.2 CIRCULATION PUMP FOR DUST SCRUBBER | 125.5 | 150.0 | 6600 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-EL601 | PASSENGER LIFT | | 30.00 | 480 | FDR | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD601AM | SCREEN | | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02A | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02B | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD601BM | SCREEN | | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02C | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02D | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD601CM | SCREEN | | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02E | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02F | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD601DM | SCREEN | | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02G | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FD602-XM02H | VIBRATING FEEDER | | 0.95 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FH601A-RCP | SWITCH CABINET (CRUSHER) | | 80.00 | 480 | FDR | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FH601A-M01 | PRODUCT FEEDER | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | VFD | FED FROM LCP |
| | UREA | UREA S/S | U-FH601A-M02 | UPPER MAIN MOTOR FOR CRUSHER | | 37.00 | 480 | (SCIM) | NL | CO | N/A | N/A | DOL | FED FROM LCP |
| | UREA | UREA S/S | U-FH601A-M03 | LOWER MAIN MOTOR FOR CRUSHER | | 37.00 | 480 | (SCIM) | NL | CO | N/A | N/A | DOL | FED FROM LCP |
| | UREA | UREA S/S | U-FH601B-RCP | SWITCH CABINET (CRUSHER) | | 80.00 | 480 | FDR | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-FH601B-M01 | PRODUCT FEEDER | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | VFD | FED FROM LCP |
| | UREA | UREA S/S | U-FH601B-M02 | UPPER MAIN MOTOR FOR CRUSHER | | 37.00 | 480 | (SCIM) | NL | CO | N/A | N/A | DOL | FED FROM LCP |
| | UREA | UREA S/S | U-FH601B-M03 | LOWER MAIN MOTOR FOR CRUSHER | | 37.00 | 480 | (SCIM) | NL | CO | N/A | N/A | DOL | FED FROM LCP |
| | UREA | UREA S/S | U-GA101A-PM02 | AUXILIARY OIL PUMP | | 2.74 | 3.70 | 480 | SCIM | EML | CS | N/A | CO | DOL |
| | UREA | UREA S/S | U-GA101B-PM02 | AUXILIARY OIL PUMP | | 2.74 | 3.70 | 480 | SCIM | EML | CS | N/A | CO | DOL |
| | UREA | UREA S/S | U-GA101A-H01 | OIL HEATER | | - | 1.00 | 277 | ERH | NL | IO | N/A | N/A | N/A |
| | UREA | UREA S/S | U-GA101B-H01 | OIL HEATER | | - | 1.00 | 277 | ERH | NL | IO | N/A | N/A | N/A |
| | UREA | UREA S/S | U-GA103AM | AMMONIA BOOST-UP PUMP | | 54.64 | 75.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL |
| | UREA | UREA S/S | U-GA103BM | AMMONIA BOOST-UP PUMP | | 54.64 | 75.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL |
| | UREA | UREA S/S | U-GA104M | LOW PRESSURE FLOODING PUMP | | 50.84 | 75.00 | 480 | SCIM | EML | IO | N/A | IO | DOL |
| | UREA | UREA S/S | U-GA105M | HIGH PRESSURE FLOODING PUMP | | 23.70 | 30.00 | 480 | SCIM | EML | IO | N/A | IO | DOL |
| | UREA | UREA S/S | U-GA106AM | STEAM CONDENSATE PUMP | | 25.65 | 30.00 | 480 | SCIM | EML | CO | N/A | CO | DOL |
| | UREA | UREA S/S | U-GA106BM | STEAM CONDENSATE PUMP | | 25.65 | 30.00 | 480 | SCIM | EML | CS | N/A | CS | DOL |
| | AMMONIA | UREA S/S | U-GA107AM | RETURN CONDENSATE PUMP | | 16.70 | 22.00 | 480 | SCIM | EML | CO | N/A | CO | DOL |
| | AMMONIA | UREA S/S | U-GA107BM | RETURN CONDENSATE PUMP | | 16.70 | 22.00 | 480 | SCIM | EML | CS | N/A | CS | DOL |
| | UREA | UREA S/S | U-GA109AM | STEAM CONDENSATE CIRCULATION PUMP | | 79.80 | 90.00 | 480 | SCIM | EML | CO | N/A | CO | DOL |
| | UREA | UREA S/S | U-GA109BM | STEAM CONDENSATE CIRCULATION PUMP | | 79.80 | 90.00 | 480 | SCIM | EML | CS | N/A | CS | DOL |
| | UREA | UREA S/S | U-GA110AM | STEAM CONDENSATE MAKE-UP PUMP | | 22.50 | 37.00 | 480 | SCIM | EML | CO | N/A | CO | DOL |
| UREA | UREA S/S | U-GA110BM | STEAM CONDENSATE MAKE-UP PUMP | | 22.50 | 37.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| UREA | UREA S/S | U-GA121AM | SEALING WATER PUMP | | 27.90 | 37.00 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| UREA | UREA S/S | U-GA121BM | SEALING WATER PUMP | | 27.90 | 37.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| UREA | UREA S/S | U-GA201AM | UREA SOLUTION PUMP | | 20.50 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| UREA | UREA S/S | U-GA201BM | UREA SOLUTION PUMP | | 20.50 | 30.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| UREA | UREA S/S | U-GA301AM | UREA FEED PUMP | | 52.40 | 75.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| UREA | UREA S/S | U-GA301BM | UREA FEED PUMP | | 52.40 | 75.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|----------|--------------|----------------------------------------------|------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | UREA | UREA S/S | U-GA304AM | TEMPERED WATER PUMP | 22.70 | 30.00 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | UREA | UREA S/S | U-GA304BM | TEMPERED WATER PUMP | 22.70 | 30.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | UREA | UREA S/S | U-GA351AM | ADDITIVE FEED PUMP | 0.70 | 1.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA351BM | ADDITIVE FEED PUMP | 0.70 | 1.50 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA352M | ADDITIVE UNLOADING PUMP | 4.49 | 7.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA401AM | CARBAMATE BOOST-UP PUMP | 32.23 | 45.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA401BM | CARBAMATE BOOST-UP PUMP | 32.23 | 45.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA402AM | HP ABSORBENT PUMP | 37.72 | 45.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA402BM | HP ABSORBENT PUMP | 37.72 | 45.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA403M | CARBONATE SOLUTION PUMP | 3.72 | 5.50 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA404AM | No.2 HP ABSORBENT PUMP | 11.11 | 15.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA404BM | No.2 HP ABSORBENT PUMP | 11.11 | 15.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA501AM | PROCESS CONDENSATE PUMP | 57.00 | 75.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA501BM | PROCESS CONDENSATE PUMP | 57.00 | 75.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA502AM | UREA HYDROLYZER FEED PUMP | 69.14 | 90.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA502BM | UREA HYDROLYZER FEED PUMP | 69.14 | 90.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA503AM | LP ABSORBENT PUMP | 19.46 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA503BM | LP ABSORBENT PUMP | 19.46 | 30.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA504M | DRAIN RECOVERY PUMP | 6.56 | 7.50 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA507AM | TREATED PROCESS CONDENSATE PUMP | 20.40 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA507BM | TREATED PROCESS CONDENSATE PUMP | 20.40 | 30.00 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA604AM | DISSOLVING PIT PUMP | 5.55 | 7.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA604BM | DISSOLVING PIT PUMP | 5.55 | 7.50 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA606M | AS SOLUTION RECOVERY PUMP | 4.10 | 11.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA651AM | AS SOLUTION CIRCULATION PUMP | 2.70 | 3.70 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA651BM | AS SOLUTION CIRCULATION PUMP | 2.70 | 3.70 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA652AM | SULFURIC ACID FEED PUMP | 1.84 | 3.70 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA652BM | SULFURIC ACID FEED PUMP | 1.84 | 3.70 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA653M | SULFURIC ACID UNLOADING PUMP | 2.22 | 3.70 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA654M | AS SOLUTION PUMP | 8.80 | 15.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GA703M | UREA SOLUTION RECOVERY PUMP | 2.41 | 3.70 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | AMMONIA | UREA S/S | U-GB101-H01 | ELECTRICAL LUBE OIL HEATER | - | 30.00 | 480 | ERH | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | UREA S/S | U-GB101-PM01A | LUBE OIL PUMP | 40.00 | 55.00 | 480 | SCIM | EML | CO | N/A | CO | DOL | |
| | AMMONIA | UREA S/S | U-GB101-PM01B | LUBE OIL PUMP | 40.00 | 55.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | UREA S/S | U-GB101-PM02 | EMERGENCY LUBE OIL PUMP | 7.00 | 11.00 | 480 | SCIM | EML | CS | N/A | CS | DOL | |
| | AMMONIA | UREA S/S | U-GB101-XM01 | TURNING MOTOR | 1.50 | 2.20 | 480 | SCIM | EML | IO | N/A | CS | DOL | |
| | UREA | UREA S/S | U-GB604M | DUST COLLECTION BLOWER | 23.00 | 30.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GB701M | N2 COMPRESSOR | 14.95 | 19.00 | 480 | SCIM | NL | IO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-GB701-H01 | ELECTRICAL LUBE OIL HEATER | - | 0.40 | 277 | ERH | NL | IO | N/A | N/A | N/A | |
| | UREA | UREA S/S | U-GD601M | AGITATOR FOR DISSOLVING PIT | 3.47 | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-JD601A-M01 | MAIN MOTOR FOR BUCKET ELEVATOR U-JD601A | 20.00 | 22.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UREA | UREA S/S | U-JD601A-M02 | CREEP MOTOR FOR BUCKET ELEVATOR U-JD601A | 1.00 | 1.10 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| UREA | UREA S/S | U-JD601B-M01 | MAIN MOTOR FOR BUCKET ELEVATOR U-JD601B | 20.00 | 22.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-JD601B-M02 | CREEP MOTOR FOR BUCKET ELEVATOR U-JD601B | 1.00 | 1.10 | 480 | SCIM | NL | CS | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-JE601 | SEED FEED LIFT (ELECTRIC HOIST) | - | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | | |
| TT | UREA S/S | U-JF601M | BELT CONVEYOR WITH PRODUCT WEIGHER | 5.80 | 7.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-JF602AM | BELT CONVEYOR WITH GRANULATOR OUTLET WEIGHER | 3.70 | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |
| UREA | UREA S/S | U-JF602BM | BELT CONVEYOR WITH GRANULATOR OUTLET WEIGHER | 3.70 | 5.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks | |
|-----------------------|----------|-----------------------|-------------------------------------|----------------------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|--------------|--|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | | |
| MECH. R (ROTATING) | UREA | UREA S/S | 20-LP-955 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR GRANULATOR OUTLET | | 1.40 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF603AM | VIBRATING FEEDER FOR GRANULATOR OUTLET | | 1.40 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-956 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR GRANULATOR OUTLET | | 1.40 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF603BM | VIBRATING FEEDER FOR GRANULATOR OUTLET | | 1.40 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-960 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR SEED HOPPER | | 1.10 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF604AM | VIBRATING FEEDER FOR SEED HOPPER | | 1.10 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-961 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR SEED HOPPER | | 1.10 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF604BM | VIBRATING FEEDER FOR SEED HOPPER | | 1.10 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-965 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR OVERSIZE COOLER | | 0.33 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF605AM | VIBRATING FEEDER FOR OVERSIZE COOLER | | 0.33 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-966 | LOCAL CONTROL PANEL FOR VIBRATING FEEDER FOR OVERSIZE COOLER | | 0.33 | 480 | FDR | | | | | | | |
| | UREA | - | U-JF605BM | VIBRATING FEEDER FOR OVERSIZE COOLER | | 0.33 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | FED FROM LCP | |
| | UREA | UREA S/S | 20-LP-950 | LOCAL CONTROL PANEL FOR BIN ACTIVATOR FOR SEED HOPPER | | 1.20 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| | UREA | - | U-JG601AM | BIN ACTIVATOR FOR SEED HOPPER | | 1.20 | 480 | (SCIM) | | | | | | | |
| | UREA | UREA S/S | 20-LP-951 | LOCAL CONTROL PANEL FOR BIN ACTIVATOR FOR SEED HOPPER | | 1.20 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| | UREA | - | U-JG601BM | BIN ACTIVATOR FOR SEED HOPPER | | 1.20 | 480 | (SCIM) | | | | | | | |
| | | | | | | | | | | | | | | | |
| | TT | UREA S/S | M-JF101M | BELT CONVEYOR | | 7.00 | 11.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | TT | UREA S/S | M-JF102M | BELT CONVEYOR | | 7.40 | 11.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| | UBS | UREA S/S | M-JF103M | BELT CONVEYOR WITH TRIPPER CAR FOR STORING | | 7.80 | 11.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| TT | UREA S/S | M-JF104M | BELT CONVEYOR | | 13.90 | 18.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |
| TT | UREA S/S | M-JF105M | BELT CONVEYOR | | 3.30 | 5.50 | 480 | SCIM | NL | CS | N/A | N/A | DOL | | |
| BAGGING | UREA S/S | M-JF106M | BELT CONVEYOR | | 13.90 | 18.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | | |
| BAGGING | UREA S/S | M-JF201M | BELT CONVEYOR | | 9.50 | 11.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | REVERSIBLE | |
| BAGGING | UREA S/S | M-JF202M | BELT CONVEYOR | | 6.50 | 7.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | REVERSIBLE | |
| BAGGING | UREA S/S | M-JF203M | BELT CONVEYOR | | 6.50 | 7.50 | 480 | SCIM | NL | CO | N/A | N/A | DOL | REVERSIBLE | |
| BAGGING | UREA S/S | M-LCP-01 | LOCAL PANEL FOR BRAKE | | | 1.65 | 480 | FDR | NL | IO | N/A | N/A | N/A | | |
| BAGGING | - | M-JF201A | THRUSTOR BRAKE FOR M-JF201 | | | 0.55 | 480 | (FDR) | NL | IO | N/A | N/A | N/A | | |
| BAGGING | - | M-JF202A | THRUSTOR BRAKE FOR M-JF202 | | | 0.55 | 480 | (FDR) | NL | IO | N/A | N/A | N/A | | |
| BAGGING | - | M-JF203A | THRUSTOR BRAKE FOR M-JF203 | | | 0.55 | 480 | (FDR) | NL | IO | N/A | N/A | N/A | | |
| UBS | UREA S/S | TC-101-JB | TRIPPER CAR | | | 13.30 | 480 | FDR | NL | CO | N/A | N/A | DOL | | |
| TT | UREA S/S | M-JG101AM | DIVERTER | | | 1.10 | 480 | SCIM | NL | IO | N/A | N/A | DOL | REVERSIBLE | |
| TT | UREA S/S | M-JG101BM | DIVERTER | | | 1.10 | 480 | SCIM | NL | IO | N/A | N/A | DOL | REVERSIBLE | |
| TT | UREA S/S | M-JG101CM | DIVERTER | | | 1.10 | 480 | SCIM | NL | IO | N/A | N/A | DOL | REVERSIBLE | |
| BAGGING | UREA S/S | 40-PC-510 | MCC FOR BAGGING MACHINE (SMALL BAG) | | | 9.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L512)40-M-502 | BAG TURNING CONVEYOR | | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L511)40-M-503 | VACUUM PUMP OPENING | | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L511)40-M-504 | SINGLING OUT CHAIN | | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L511)40-M-505 | POSITIONING | | | 0.25 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L512)40-M-506 | ACCELERATION CONVEYOR | | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L512)40-M-507 | BAG CLOSING CONVEYOR | | | 1.10 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L512)40-M-508 | SEWING-INFEED | | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L512)40-M-509 | SEWING-HEAD | | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | (40-PJN-L511)40-M-510 | DOSING FLAP (WEIGHER) | | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | | |
| BAGGING | - | 40-UP-511 | SUPPLY 240V TO PLC | | | 1.50 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|---------|------------|------------------------|-----------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|---------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | BAGGING | UREA S/S | 40-PC-520 | MCC FOR PALLETIZER | | 28.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-516 | INCLINED CONVEYOR | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-518 | BAG FLATTENER | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-517 | PACING CONVEYOR 1 | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L531)40-M-519 | TURNER | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-520 | TURNING CONVEYOR | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L538)40-M-521 | PALLET DISPENSER FORWARD-BACKWARD | | 0.25 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L538)40-M-522 | PALLET DISPENSER LIFTING-LOWERING | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-523 | EMPTY PALLET CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L536)40-M-524 | ROW PUSHER LIFTING-LOWRING | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-525 | LAYER FORMER LEFT | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-526 | LAYER FORMER RIGHT | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-527 | LAYER FORMER REAR | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-528 | LAYER FORMING BELT | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-529 | ROW PUSHER | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L533)40-M-530 | ELEVATOR CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-531 | LOAD PLATE | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-532 | ELEVATOR | | 7.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-533 | FULL PALLET CONVEYOR1 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-UP-521 | SUPPLY 240V TO PLC | | 2.00 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | UREA S/S | 40-PC-530 | MCC FOR STRETCH WRAPPER | | 13.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-541 | PALLET TRANSFORT 1 INFEEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-542 | PALLET TRANSFORT 2 INFEEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-543 | WRAPPER CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L550) 40-M-544 | ARM ROTATION | | 2.20 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L550)40-M-545 | PRE-STRETCH CARRIAGE | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L550)40-M-546 | CARRIAGE LIFTER | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L550)40-M-547 | VERTICAL TOP CARRIAGE MOVEMENT | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L550)40-M-548 | HORIZONTAL TOP CARRIAGE MOVEMENT | | 0.37 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-549 | PALLET TRANSFORT 1 OUTFEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-550 | PALLET TRANSFORT 2 OUTFEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-551 | PALLET TRANSFORT 3 OUTFEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-552 | PALLET TRANSFORT 4 OUTFEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-553 | PALLET TRANSFORT 5 OUTFEED | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-UP-531 | SUPPLY 240V TO PLC | | 2.00 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | UREA S/S | 40-PC-540 | MCC FOR BIG BAG MACHINES | | 27.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L571)40-M-561 | PALLET DISPENSER FORWARD-BACKWARD | | 0.25 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L571)40-M-562 | PALLET DISPENSER LIFTING-LOWERING | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-563 | EMPTY PALLET CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-565 | BAGGING FAN BLOWING UP | | 1.10 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L572)40-M-564 | BAGGING CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L572)40-M-566 | BAGGING HYDRAULIC LIFT | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-567 | FULL PALLET CONVEYOR1 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-568 | FULL PALLET CONVEYOR2 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L576)40-M-571 | PALLET DISPENSER FORWARD-BACKWARD | | 0.25 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L576)40-M-572 | PALLET DISPENSER LIFTING-LOWERING | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-573 | EMPTY PALLET CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L577)40-M-574 | BAGGING CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-575 | BAGGING FAN BLOWING UP | | 1.10 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L577)40-M-576 | BAGGING HYDRAULIC LIFT | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-----------------------|----------|------------------|-----------------------|---------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|-----------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | BAGGING | - | 40-M-577 | FULL PALLET CONVEYOR1 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-578 | FULL PALLET CONVEYOR2 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L581)40-M-581 | PALLET DISPENSER FORWARD-BACKWARD | | 0.25 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L581)40-M-582 | PALLET DISPENSER LIFTING-LOWERING | | 0.75 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | 40-M-583 | EMPTY PALLET CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| | BAGGING | - | (40-PJN-L582)40-M-584 | BAGGING CONVEYOR | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | N/A |
| | BAGGING | - | 40-M-585 | BAGGING FAN BLOWING UP | | 1.10 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | N/A |
| | BAGGING | - | (40-PJN-L582)40-M-586 | BAGGING HYDRAULIC LIFT | | 1.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | N/A |
| | BAGGING | - | 40-M-587 | FULL PALLET CONVEYOR1 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | N/A |
| | BAGGING | - | 40-M-588 | FULL PALLET CONVEYOR2 | | 0.55 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | N/A |
| BAGGING | - | 40-UP-541 | SUPPLY 240V TO PLC | | 2.00 | 480 | (FDR) | NL | CO | N/A | N/A | N/A | N/A | |
| TT | UREA S/S | M-JD101-M01 | | MAIN MOTOR FOR BUCKET ELEVATOR FOR BAGGING HOUSE | 38.40 | 45.00 | 480 | SCIM | NL | CO | N/A | N/A | DOL | |
| TT | UREA S/S | M-JD101-M02 | | CREEP MOTOR FOR BUCKET ELEVATOR FOR BAGGING HOUSE | 2.00 | 2.20 | 480 | SCIM | NL | CS | N/A | N/A | DOL | |
| UBS | UREA S/S | M-JF200 | | RECLAIMER FOR UREA BULK WAREHOUSE | | 60.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | UREA S/S | M-JE-101A | | ELECTRIC HOIST 0.5T FOR T/T | | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-JE-101B | | ELECTRIC HOIST 0.5T FOR T/T | | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-JE-101C | | ELECTRIC HOIST 0.5T FOR T/T | | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-JE-101D | | ELECTRIC HOIST 0.5T FOR T/T | | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-JE-101E | | ELECTRIC HOIST 0.5T FOR T/T | | 4.10 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-FA101A | | BAG FILTER FOR TRANSFER TOWER | | 11.85 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101A-M01 | | MOTOR FOR FAN | | 11.00 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101A-M02 | | MOTOR FOR ROTARY VALVE | | 0.75 | 480 | (SCIM) | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-FA101B | | BAG FILTER FOR TRANSFER TOWER | | 11.85 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101B-M01 | | MOTOR FOR FAN | | 11.00 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101B-M02 | | MOTOR FOR ROTARY VALVE | | 0.75 | 480 | (SCIM) | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-FA101C | | BAG FILTER FOR TRANSFER TOWER | | 13.85 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101C-M01 | | MOTOR FOR FAN | | 11.00 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101C-M02 | | MOTOR FOR ROTARY VALVE | | 0.75 | 480 | (SCIM) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA101C-MOV-601 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA101C-MOV-602 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-FA201 | | BAG FILTER FOR BUCKET ELEVATOR | | 21.35 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101E-M01 | | MOTOR FOR FAN | | 18.50 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA101E-M02 | | MOTOR FOR ROTARY VALVE | | 0.75 | 480 | (SCIM) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA201-MOV-603 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA201-MOV-604 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | UREA S/S | M-FA301 | | BAG FILTER FOR BAGGING AND PALLETIZING AREA | | 55.85 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA301-M01 | | MOTOR FOR FAN | | 45.00 | 480 | (SCIM) | NL | CO | N/A | N/A | N/A | |
| TT | - | M-FA301-M02 | | MOTOR FOR ROTARY VALVE | | 0.75 | 480 | (SCIM) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-605 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-606 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-607 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-608 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-609 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-610 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-611 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-612 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-613 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| TT | - | M-FA301-MOV-614 | | AUTO DAMPER | | 1.00 | 380 | (MOV) | NL | IO | N/A | N/A | N/A | |
| MW | MW | 302-JE | | MAIN CRANE FOR MAINTENANCE WORKSHOP | | 22.70 | 380 | FDR | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-------------------------|-------------|-------------|------------------------------------|----------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|--------------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| MECH. R (ROTATING) | | | | | | | | | | | | | | |
| | RWI | RWI S/S | 320-JM | RIVER WATER LIFT PUMP | 70.94 | 90.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 320-JAM | RIVER WATER LIFT PUMP | 70.94 | 90.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | RWI | RWI S/S | 330-JM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 330-JAM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 330-JBM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 330-JCM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 330-JDM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| | RWI | RWI S/S | 330-JEM | RIVER WATER PUMP | 128.39 | 136.00 | 480 | SCIM | NL | CS | CS | N/A | DOL | |
| | RWI | RWI S/S | 331-JM | SUMP PUMP FOR 330-F | 1.18 | 1.50 | 480 | SCIM | NL | CO | CO | N/A | DOL | |
| RWI | RWI S/S | 331-JAM | SUMP PUMP FOR 330-F | 1.18 | 1.50 | 480 | SCIM | NL | CS | CS | N/A | DOL | | |
| RWI | RWI S/S | 330-L | LCP FOR RIVER WATER SCREEN PACKAGE | | 2.00 | 480 | FDR | NL | IO | N/A | N/A | DOL | | |
| | CAMP | CAMP ELEC. | 340-JM | POTABLE WATER PUMP | | 15.00 | 380 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | 340-JAM | POTABLE WATER PUMP | | 15.00 | 380 | FDR | NL | CO | N/A | N/A | N/A | |
| MECH. S (STATIONARY) | AMMONIA | AMMONIA S/S | 101-BJM | INDUCED DRAFT FAN | 660.0 | 700.0 | 6600 | SCIM | EML | CO | N/A | CO | VFD | VFD ONLY FOR START |
| | AMMONIA | AMMONIA S/S | 101-BJ-PM01 | MAIN LUBE OIL PUMP | 0.92 | 1.50 | 480 | SCIM | EML | CO | N/A | CO | N/A | |
| | AMMONIA | AMMONIA S/S | 101-BJ-PM02 | AUX. LUBE OIL PUMP | 0.92 | 1.50 | 480 | SCIM | EML | CS | CS | CS | N/A | |
| | AMMONIA | AMMONIA S/S | 101-BJ-PM03 | EMERGENCY LUBE OIL PUMP | 0.92 | 1.50 | 480 | SCIM | EML | CS | CS | CS | N/A | |
| | AMMONIA | AMMONIA S/S | 101-BJ-H01 | LUBE OIL HEATER | - | 3.00 | 277 | ERH | NL | IO | N/A | N/A | N/A | |
| | CT | UTILITY S/S | 342-L-FM01A | BACKWASH FILTER | | 0.18 | 480 | SCIM | NL | CO | N/A | N/A | N/A | |
| CT | UTILITY S/S | 342-L-FM01B | BACKWASH FILTER | | 0.18 | 480 | SCIM | NL | CS | N/A | N/A | N/A | | |
| HVAC | UTILITY S/S | UTILITY S/S | USS-10-HPP-01 | HVAC POWER PANEL (UTILITY SUBSTATION) | | 162.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA S/S | AMMONIA S/S | ASS-20-HPP-01 | HVAC POWER PANEL (AMMONIA SUBSTATION) | | 100.10 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | UREA S/S | UREA S/S | URSS-30-HPP-01 | HVAC POWER PANEL (UREA SUBSTATION) | | 117.50 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | BAGGING | UREA S/S | BPB-32-HPP-01 | HVAC POWER PANEL (BAGGING HOUSE) | | 40.70 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | UBS | UREA S/S | UBS-31-AHU-01 | AIR HANDLING UNIT | | 30.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | UBS | UREA S/S | UBS-31-AHU-02 | AIR HANDLING UNIT | | 30.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB |
| | MCB | ADMIN. S/S | MCB-60-HPP-01 | HVAC POWER PANEL (MAIN CONTROL BUILDING) | | 92.90 | 380/220 | FDR | EML | CO | CO | CO | N/A | |
| | ADMIN. BLD | ADMIN. S/S | F61-PDB701 | PDB FOR ADMIN. BUILDING HVAC | | 38.40 | 380 | FDR | NL | CO | N/A | N/A | N/A | |
| | MW | ADMIN. S/S | MW-63-HPP-01 | HVAC POWER PANEL (MAINTENANCE WORKSHOP) | | 31.40 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | ADMIN S/S | ADMIN. S/S | ADSS-40-SAC-01A | SPLIT AIR CONDITIONING UNIT | | 11.30 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | ADMIN S/S | ADMIN. S/S | ADSS-40-SAC-01B | SPLIT AIR CONDITIONING UNIT | | 11.30 | 380/220 | FDR | NL | CS | N/A | N/A | N/A | |
| | LAB. BLD | ADMIN. S/S | LB-62-HPP-01 | HVAC POWER PANEL (LABORATORY) | | 120.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | KITCHEN | CAMP ELEC. | KDB-72-HPP-01 | HVAC POWER PANEL(KITCHEN, DINING & GAMEROOM) | | 66.30 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | GYM | CAMP ELEC. | GDB-71-HPP-01 | HVAC POWER PANEL (GYM & DRESSING BUILDING) | | 13.20 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|-------------|-------------|--------------|-------------------------------------------------------|--------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|-----------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| ELECTRICAL | UTILITY S/S | UTILITY S/S | F10-PDB501 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(300KVA) | | 226.50 | 480 | FDR | - | - | - | - | | |
| | | | F10-PDB501A | - NORMAL CIRCUIT | | 177.00 | 380/220 | - | NL | CO | N/A | N/A | N/A | |
| | | | F10-PDB501E | - EMERGENCY CIRCUIT | | 49.50 | 380/220 | - | EML | CO | CO | CO | N/A | |
| | CT | UTILITY S/S | F-EHT501 | ELECTRIC HEAT TRACING PANEL | | 21.00 | 380 | FDR | EML | IO | IO | IO | N/A | INCLUDED IN PDB |
| | UTILITY | UTILITY S/S | F-CPS501 | CATHODIC PROTECTION (FOR 334-F & 361-F) | | 0.83 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB |
| | CT | UTILITY S/S | F-CPS502 | CATHODIC PROTECTION (FOR 332-F & 333-F) | | 1.25 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB |
| | UTILITY | UTILITY S/S | F-CPS503 | CATHODIC PROTECTION (FOR U/G PIPELINE) | | 5.21 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB |
| | CT | UTILITY S/S | F-CPS504 | CATHODIC PROTECTION (FOR U/G PIPELINE) | | 5.21 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB |
| | UTILITY S/S | UTILITY S/S | F10-PDB502 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(300KVA) | | 250.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | |
| | UTILITY | UTILITY S/S | F-WR501/502 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | CT | UTILITY S/S | F-WR503/504 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | CT | UTILITY S/S | F-WR505/506 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | UTILITY | UTILITY S/S | F-WR507/508 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | UTILITY S/S | UTILITY S/S | F10-UPS601A1 | AC UPS "NORMAL" (45KVA) | 25.00 | 36.00 | 480 | PUS | EML | CO | CO | CO | N/A | |
| | UTILITY S/S | UTILITY S/S | F10-UPS601B1 | AC UPS "STAND BY" (45KVA) | 25.00 | 36.00 | 480 | PUS | EML | CS | CS | CS | N/A | |
| | UTILITY S/S | UTILITY S/S | F10-UPS601C | AC UPS "BY PASS" (45KVA) | 25.00 | 36.00 | 480 | PUS | EML | CS | CS | CS | N/A | |
| | UTILITY S/S | UTILITY S/S | F10-DBC601A | DC UPS "NORMAL" | 6.00 | 16.50 | 480 | PUS | EML | CO | CO | CO | N/A | |
| | UTILITY S/S | UTILITY S/S | F10-DBC601B | DC UPS "STAND BY" | 6.00 | 16.50 | 480 | PUS | EML | CS | CS | CS | N/A | |
| AMMONIA S/S | AMMONIA S/S | A20-PDB501 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(250KVA) | | 222.00 | 480 | FDR | - | - | - | - | - | | |
| | | A20-PDB501A | - NORMAL CIRCUIT | | 186.00 | 380/220 | - | NL | CO | N/A | N/A | N/A | | |
| | | A20-PDB501E | - EMERGENCY CIRCUIT | | 36.00 | 380/220 | - | EML | CO | N/A | CO | N/A | | |
| AMMONIA | AMMONIA S/S | A-CPS501 | CATHODIC PROTECTION (FOR 337-F & 114F & 115F) | | 1.67 | 380 | FDR | EML | CO | N/A | CO | N/A | INCLUDED IN PDB | |
| AMMONIA | AMMONIA S/S | A-CPS502 | CATHODIC PROTECTION (U/G PIPE LINE) | | 5.21 | 380 | FDR | EML | CO | N/A | CO | N/A | INCLUDED IN PDB | |
| BLD. AREA | AMMONIA S/S | A-CPS503 | CATHODIC PROTECTION (U/G PIPE LINE) | | 5.21 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB | |
| AMMONIA S/S | AMMONIA S/S | A20-PDB502 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(300KVA) | | 220.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| AMMONIA | AMMONIA S/S | A-WR501/502 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB | |
| AMMONIA | AMMONIA S/S | A-WR503/504 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB | |
| AMMONIA | AMMONIA S/S | A-WR505/506 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB | |
| AMMONIA S/S | AMMONIA S/S | A20-UPS601A1 | AC UPS "NORMAL" (80KVA) | 45.00 | 64.00 | 480 | PUS | EML | CO | N/A | CO | N/A | | |
| AMMONIA S/S | AMMONIA S/S | A20-UPS601B1 | AC UPS "STAND BY" (80KVA) | 45.00 | 64.00 | 480 | PUS | EML | CS | N/A | CS | N/A | | |
| AMMONIA S/S | AMMONIA S/S | A20-UPS601C1 | AC UPS "BY PASS" (80KVA) | 45.00 | 64.00 | 480 | PUS | EML | CS | N/A | CS | N/A | | |
| AMMONIA S/S | AMMONIA S/S | A20-DBC601A | DC UPS "NORMAL" | 3.50 | 5.50 | 480 | PUS | EML | CO | N/A | CO | N/A | | |
| AMMONIA S/S | AMMONIA S/S | A20-DBC601B | DC UPS "STAND BY" | 3.50 | 5.50 | 480 | PUS | EML | CS | N/A | CS | N/A | | |
| UREA S/S | UREA S/S | U30-PDB501A | POWER DISTRIBUTION BOARD W/ ISOLATION TR(350KVA) | | 276.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| UREA S/S | UREA S/S | U30-PDB501E | POWER DISTRIBUTION BOARD W/ ISOLATION TR(100KVA) | | 75.00 | 480 | FDR | EML | CO | N/A | CO | N/A | | |
| UREA | UREA S/S | U-CPS501 | CATHODIC PROTECTION (FOR 338-F & U-FA201) | | 1.00 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB | |
| UREA | UREA S/S | U-CPS502 | CATHODIC PROTECTION (FOR U-FA351A & U-FA351B) | | 0.83 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB | |
| UREA | UREA S/S | U-CPS503 | CATHODIC PROTECTION (FOR U-FA653 & U-FA501 & U-FA401) | | 1.25 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB | |
| UREA | UREA S/S | U-CPS504 | CATHODIC PROTECTION (U/G PIPELINE) | | 5.21 | 380 | FDR | EML | CO | CO | CO | N/A | INCLUDED IN PDB | |
| UREA S/S | UREA S/S | U30-SW501 | WIDE SIREN | | 6.60 | 220 | FDR | EML | CS | CS | CS | N/A | INCLUDED IN PDB | |
| UREA S/S | UREA S/S | U30-PDB502 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(400KVA) | | 330.00 | 480 | FDR | NL | CO | N/A | N/A | N/A | | |
| UREA | UREA S/S | U-WR501/502 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB | |
| UREA | UREA S/S | U-WR503 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB | |
| UREA S/S | UREA S/S | U30-UPS601A1 | AC UPS "NORMAL" (60KVA) | 25.00 | 36.00 | 480 | PUS | EML | CO | N/A | CO | N/A | | |
| UREA S/S | UREA S/S | U30-UPS601B1 | AC UPS "STAND BY" (60KVA) | 25.00 | 36.00 | 480 | PUS | EML | CS | N/A | CS | N/A | | |
| UREA S/S | UREA S/S | U30-UPS601C1 | AC UPS "BY PASS" (60KVA) | 25.00 | 36.00 | 480 | PUS | EML | CS | N/A | CS | N/A | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|------------|------------|--------------|---------------------------------------|--------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|-----------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| ELECTRICAL | UREA S/S | UREA S/S | U30-DBC601A | DC UPS "NORMAL" | 3.00 | 4.40 | 480 | PUS | EML | CO | N/A | CO | N/A | |
| | UREA S/S | UREA S/S | U30-DBC601B | DC UPS "STAND BY" | 3.00 | 4.40 | 480 | PUS | EML | CS | N/A | CS | N/A | |
| | BAGGING | UREA S/S | M32-RP502 | FEEDER FOR FORK LIFT BATTERY CHARGER | | 100.00 | 480 | PUS | NL | IO | N/A | N/A | N/A | |
| | BAGGING | UREA S/S | M32-RP503 | FEEDER FOR FORK LIFT BATTERY CHARGER | | 100.00 | 480 | PUS | NL | IO | N/A | N/A | N/A | |
| | UBS | UREA S/S | M-WR501/502 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | UBS | UREA S/S | M-WR503/504 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | BAGGING | UREA S/S | M-WR505/506 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | BAGGING | UREA S/S | M-WR507 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | ADMIN. S/S | ADMIN. S/S | F40-DBC601 | DC UPS "NORMAL" | 1.50 | 2.00 | 380 | FDR | NL | CO | CO | N/A | N/A | |
| | ADMIN. S/S | ADMIN. S/S | F40-DBC601 | DC UPS "STAND BY" | 1.50 | 2.00 | 380 | FDR | EML | CS | CS | CO | N/A | |
| | ADMIN. S/S | ADMIN. S/S | F40-PDB501 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(300KVA) | | 196.10 | 380 | FDR | - | - | - | - | - | |
| | | | F40-PDB501A | - NORMAL CIRCUIT | | 137.80 | 380/220 | - | NL | CO | N/A | N/A | N/A | |
| | | | F40-PDB501E | - EMERGENCY CIRCUIT | | 58.30 | 380/220 | - | EML | CO | CO | CO | N/A | |
| | RADIO ROOM | ADMIN. S/S | 65-JB01 | POWER FOR RADIO ROOM | | 7.00 | 380 | PUS | EML | CO | N/A | CO | N/A | |
| ADMIN. S/S | ADMIN. S/S | F40-LTR402 | PANEL FAN AND LIGHTING | | 1.00 | 220 | PUS | EML | CO | N/A | CO | N/A | | |
| MW | ADMIN. S/S | F63-PDB501 | PDP FOR CRANE & MACHINES IN WORK SHOP | | 50.00 | 380 | FDR | NL | IO | N/A | N/A | N/A | | |
| MW | MW | F63-WR501 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | | |
| LAB. BLD | ADMIN. S/S | F62-PDB501 | PDB WITH AVR FOR LAB EQUIPMENT | | 75.00 | 380 | FDR | NL | CO | N/A | N/A | N/A | | |
| MCB | ADMIN. S/S | F60-UPS601A1 | AC UPS "NORMAL" (65KVA) | 36.00 | 52.00 | 380 | PUS | NL | CO | CO | N/A | N/A | | |
| MCB | ADMIN. S/S | F60-UPS601B1 | AC UPS "STAND BY" (65KVA) | 36.00 | 52.00 | 380 | PUS | EML | CS | CS | CO | N/A | | |
| MCB | ADMIN. S/S | F60-UPS601C1 | AC UPS "BY PASS" (65KVA) | 36.00 | 52.00 | 380 | PUS | EML | CS | CS | CS | N/A | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|------------|---------|------------|-----------------|--------------------------------------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|-----------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| ELECTRICAL | CAMP | CAMP ELEC. | F70-LD501 | LIGHTING & RECEPTACLE PANEL CAMP #1 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB501 | RECEPTACLE PANEL FOR HVAC CAMP #1 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LD502 | LIGHTING & RECEPTACLE PANEL CAMP #2 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB502 | RECEPTACLE PANEL FOR HVAC CAMP #2 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LD503 | LIGHTING & RECEPTACLE PANEL CAMP #3 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB503 | RECEPTACLE PANEL FOR HVAC CAMP #3 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LD504 | LIGHTING & RECEPTACLE PANEL CAMP #4 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB504 | RECEPTACLE PANEL FOR HVAC CAMP #4 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LD505 | LIGHTING & RECEPTACLE PANEL CAMP #5 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB505 | RECEPTACLE PANEL FOR HVAC CAMP #5 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LD506 | LIGHTING & RECEPTACLE PANEL CAMP #6 | | 26.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | CAMP | CAMP ELEC. | F70-PDB506 | RECEPTACLE PANEL FOR HVAC CAMP #6 | | 40.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | GYM | CAMP ELEC. | F71-LD501 | LIGHTING PANEL (D&N) GYM & DRESSING BUILDING | | 4.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | GYM | CAMP ELEC. | F71-RP501 | RECEPTACLE PANEL GYM & DRESSING BUILDING | | 25.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | KITCHEN | CAMP ELEC. | F72-LD501 | LIGHTING PANEL (D&N) KITCHEN, DINING & GAMEROOM | | 8.00 | 380/220 | FDR | EML | CO | N/A | CO | N/A | |
| | KITCHEN | CAMP ELEC. | F72-RP501 | RECEPTACLE PANEL KITCHEN, DINING & GAMEROOM | | 20.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | CAMP | CAMP ELEC. | F70-LN501 | LIGHTING PANEL (N), CAMP AREA | | 15.00 | 380/220 | FDR | NL | CO | N/A | N/A | N/A | |
| | KITCHEN | CAMP ELEC. | F70-DBC601 | DC UPS "NORMAL" | | 1.00 | 380 | FDR | EML | CO | N/A | CO | N/A | |
| | KITCHEN | CAMP ELEC. | F70-DBC601 | DC UPS "STAND-BY" | | 1.00 | 380 | FDR | EML | CS | N/A | CS | N/A | |
| | KITCHEN | CAMP ELEC. | F70-DBC601 | PANEL LTG & SH FOR BATTERY CHARGER | | 1.00 | 220 | FDR | NL | CS | N/A | N/A | N/A | |
| | KITCHEN | CAMP ELEC. | F70-LVS401 | PANEL LTG & SH FOR 380V SWGR | | 1.00 | 220 | FDR | NL | CS | N/A | N/A | N/A | |
| | KITCHEN | CAMP ELEC. | F72-UPS01 | AC UPS FOR COMMUNICATION | | 2.00 | 220 | FDR | EML | CO | N/A | CO | N/A | |
| | | | | | | | | | | | | | | |
| | RWI S/S | RWI S/S | F50-PDB501 | POWER DISTRIBUTION BOARD W/ ISOLATION TR(100KVA) | | 80.00 | 480 | FDR | NL | CO | CO | N/A | N/A | |
| | RWI | RWI S/S | C-WR501/C-WR502 | WELDING RECEPTACLE | | 40.00 | 380/220 | PUS | NL | CS | N/A | N/A | N/A | INCLUDED IN PDB |
| | | | | | | | | | | | | | | |
| | RWI S/S | RWI S/S | F50-DBC601 | DC UPS "NORMAL" | | 1.00 | 1.00 | 480 | PUS | EML | CO | CO | CO | N/A |
| | RWI S/S | RWI S/S | F50-DBC601 | DC UPS "STAND BY" | | 1.00 | 1.00 | 480 | PUS | EML | CS | CS | CS | N/A |
| | RWI S/S | RWI S/S | F50-UPS601A1 | AC UPS "NORMAL" (5KVA) | | 3.00 | 4.00 | 480 | PUS | EML | CO | CO | CO | N/A |
| | RWI S/S | RWI S/S | F50-UPS601B1 | AC UPS "STAND BY" (5KVA) | | 3.00 | 4.00 | 480 | PUS | EML | CS | CS | CS | N/A |
| | RWI S/S | RWI S/S | F50-UPS601C | AC UPS "BY PASS" (5KVA) | | 3.00 | 4.00 | 480 | PUS | EML | CS | CS | CS | N/A |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

ELECTRICAL LOAD LIST

SC2566 - YPFB BOLIVIA AMMONIA/UREA PROJECT

| Department | Area | Substation | Item-No. | Service | BHP (kW) | Rating (kW) | Voltage [V] | User Type | Load Category | Operation Duty | | | Starting Method | Remarks |
|------------|-------------|-------------|---------------------|----------------------|----------|-------------|-------------|-----------|---------------|----------------|----------------|--------------|-----------------|-----------------|
| | | | | | | | | | | In Normal | In Black Start | In Emergency | | |
| INSTRUMENT | AMMONIA | AMMONIA S/S | 10-MOV-1005 | MOTOR OPERATED VALVE | | 5.59 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1007 | MOTOR OPERATED VALVE | | 13.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1008 | MOTOR OPERATED VALVE | | 13.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1009 | MOTOR OPERATED VALVE | | 4.29 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1011 | MOTOR OPERATED VALVE | | 5.87 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1015 | MOTOR OPERATED VALVE | | 1.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1016 | MOTOR OPERATED VALVE | | 1.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1017 | MOTOR OPERATED VALVE | | 1.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1018 | MOTOR OPERATED VALVE | | 1.98 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1051 | MOTOR OPERATED VALVE | | 5.87 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1052 | MOTOR OPERATED VALVE | | 3.21 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-MOV-1053 | MOTOR OPERATED VALVE | | 4.41 | 380 | MOV | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-AH-0001 | ANALYZER HOUSE(HVAC) | | 18.50 | 480 | FDR | NL | IO | N/A | N/A | N/A | |
| | AMMONIA | AMMONIA S/S | 10-AT-1101 | CEMS | | 7.67 | 220 | FDR | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | AMMONIA S/S | 10-AH-0001 | ANALYZER HOUSE | | 2.20 | 220 | FDR | NL | IO | N/A | N/A | N/A | INCLUDED IN PDB |
| | AMMONIA | UREA S/S | 20-AT-151/20-AT-152 | ANALYZER SYSTEM | | 3.90 | 220 | FDR | NL | IO | N/A | N/A | N/A | |
| | | | | | | | | | | | | | | |
| UTILITY | UTILITY S/S | 30-AT-3101 | CEMS | | 7.67 | 220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB | |
| UTILITY | UTILITY S/S | 30-AT-3102 | CEMS | | 7.67 | 220 | FDR | NL | CO | N/A | N/A | N/A | INCLUDED IN PDB | |