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| **طرح نگهداشت و افزایش تولید 27 مخزن** |
| **PROCESS ELECTRICAL LOAD LIST** **نگهداشت و افزایش تولید میدان نفتی بینک** |
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| D04 | JUL.2023 | AFC | M.Aryafar | M.Fakharian | A.M.Mohseni |  |
| D03 | JAN.2023 | IFA | M.Aryafar | M.Fakharian | M.Mehrshad |  |
| D02 | AUG.2022 | IFA | M.Aryafar | M.Fakharian | M.Mehrshad |  |
| D01 | MAR.2022 | IFA | M.Aryafar | M.Fakharian | M.Mehrshad |  |
| D00 | JAN.2022 | IFC | M.Aryafar | M.Fakharian | M.Mehrshad |  |
| **Rev.** | **Date** | **Purpose of Issue/Status** | **Prepared by:** | **Checked by:** | **Approved by:** | **CLIENT Approval** |
| **Class:** 1 | **CLIENT Doc. Number:** F0Z-708808 |
| **Status:** | **IDC: Inter-Discipline Check****IFC: Issued For Comment** **IFA: Issued For Approval****AFD: Approved For Design** **AFC: Approved For Construction** **AFP: Approved For Purchase****AFQ:** Approved For Quotation **IFI: Issued For Information****AB-R: As-Built for CLIENT Review** **AB-A: As-Built –Approved** |

**REVISION RECORD SHEET**

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| **PAGE** | **D00** | **D01** | **D02** | **D03** | **D04** | **D05** |  | **PAGE** | **D00** | **D01** | **D02** | **D03** | **D04** | **D05** |
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1. **INTRODUCTION**

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

**GENERAL DEFINITION**

The following terms shall be used in this document.

|  |  |
| --- | --- |
| CLIENT:  | National Iranian South Oilfields Company (NISOC)  |
| PROJECT: | Binak Oilfield Development – Surface Facilities; New Gas Compressor Station |
| EPD/EPC CONTRACTOR:  | Petro Iran Development Company (PEDCO) |
| EPC CONTRACTOR: | Joint Venture of : Hirgan Energy – Design & Inspection(D&I) Companies |
| VENDOR: | The firm or person who will fabricate the equipment or material. |
| EXECUTOR:  | Executor is the party which carries out all or part of construction and/or commissioning for the project. |
| THIRD PARTY INSPECTOR (TPI): | The firm appointed by EPC CONTRACTOR and approved by GC & CLIENT (in writing) for the inspection of goods. |
| SHALL: | Is used where a provision is mandatory. |
| SHOULD: | Is used where a provision is advisory only. |
| WILL:  | Is normally used in connection with the action by CLIENT rather than by an EPC/EPD CONTRACTOR, supplier or VENDOR. |
| MAY:  | Is used where a provision is completely discretionary. |

1. **Scope**

The purpose of this document is to provide summary of process electrical loads for BINAK Gas Compressor Station”.

1. **NORMATIVE REFERENCES**

## **The Project Documents**

* BK-GNRAL-PEDCO-000-PR-DC-0001 Process Design Criteria
* BK-GNRAL-PEDCO-000-PR-DB-0001 Process Basis Of Design
* BK-GCS-PEDCO-120-PR-UF-0001 Utility Flow Diagrams (UFD)
* BK-GCS-PEDCO-120-PR-PI-0002~0025 P&ID
* BK-GCS-PEDCO-120-PR-PF-0001 Process Flow Diagram (PFD)

## **ENVIRONMENTAL DATA**

Refer to "Process Basis of Design; Doc. No. BK-GNRAL-PEDCO-000-PR-DB-0001".

1. **ELECTRICAL CONSUMPTION**

D05

| **No.** | **ITEM No.** | **SERVICE** | **C / I** | **Configuration** | **Emergency** | **N/S** | **Efficiency** | **POWER****(EACH)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BHP (kW)** |
| 1 | AC-2101 A/B/C | 1st Stage Air Coolers | C | 2+1 | - | 2N+S | - | 8.5 (Each) (NOTE1) |
| 2 | AC-2102 A/B/C/ | 2nd  Stage Air Coolers | C | 2+1 | - | 2N+S | - | 19 (Each) (NOTE1) |
| 3 | C-2101 A/B/CC-2102 A/B/C | 1st & 2nd StageGas Compressor Package + Other Consumption | C | 2+1 | - | 2N+S | - | 484+448 (Each) |
| 4 | PK-C-2203 A/B | Instrument & Plant Air Package | C | 1+1 | E | N+S | - | 40 (NOTE1) |
| 5 | PK-Dr-2203 A/B | Air Dryer Package | C | 1+1 | - | N | - | 2 (NOTE1) |
| 6 | PK-C-2204 | Air compressor for N2 Package | C | 1 | - | N | - | 30 (NOTE1) |
| 7 | PK-2204 | Nitrogen Package | C | 1 | - | N | - | 2 (NOTE1) |
| 8 | PK-2201 | LP Flare Package(Including blower for smokeless Flare) | C | 1 | - | N | - | 22.5 (NOTE1) |
| 9 | IG-2201 | LP Flare Ignition Package | I | 1 | E | N | - | 2 (NOTE1) |
| 10 | PK-2207 | Corrosion Inhibitor Package | C | 1 | - | N | - | 2 (NOTE1) |
| 11 | PK-2208 | Methanol Injection Package | DELETED |
| 12 | PK‐2101 | Dehydration Package | C | 1 | - | N | - | 20 (NOTE1) |
| 13 | P-2203A/B | Sump Pump | I | 1+1 | E | N+S | 31% | 1 |
| 14 | P-2202 A/B | Closed Drain Pumps | I | 1+1 |  E | N+S | 22% | 2.9 |
| 15 | P-2101A/B | Slug Pumps | I | 1+1 | E | N+S | 61% | 7 |
| 16 | P-2302 A/B | Fire Water Jockey Pumps | I | 1+1 | - | N+S | 29% | Rated power =14.8Motor Power =18.5 |
| 17 | P-2301 A | Fire Water electric Pump | I | 1 | - | N | 72% | Rated power =180.5Motor Power =250 |
| 18 | P-2209 | Potable Water Pumps | I | 1 | - | N | 31% | 1.5 |
| 19 | P-2206 | Diesel Oil Pump | I | 1 | - | N | 52% | 0.6 |
| 20 | P-2201A/B | LP Flare K.O. Drum Pumps | I | 1+1 | E | N+S | 15% | 0.6 |
| 21 | P-2103 A/B | Glycol Transfer Pumps | I | 1+1 | - | N+S | 31% | 1 |
| 22 | P-2102 | Glycol Manual Pump | I | 1 | - | N | 31% | 0.4 |
| 23 | P-2104 | Glycol Drain Pump | I | 1 | - | N | 22% | 0.8 |
| 24 | - | MOV | I | 2 |  - | N | - | 2(NOTE1) |
| 25 | Electrical tracing 1st Stage | 1st Stage Compressors | C | 2+1 | %85 | 2N+S | - | 0.227 |
| 26 | Electrical tracing 2nd Stage | 2nd Stage Compressors | C | 2+1 | %85 | 2N+S | - | 2.625 |

NOTE 1: Will be finalized by vendor.

C: Continues/ E: Emergency Load/ I: Intermittent/ N: Normal Load/ S: Standby