



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

053 - 073 - 9184

DUTY SPECIFICATION FOR CHEMICAL INJECTION PACKAGE

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D03	0004	SP	PR	120	PEDCO	GCS	BK

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1.0 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.

As a part of the Project, a New Gas Compressor Station (adjacent to existing Binak GCS) shall be constructed to gather of 15 MMSCFD (approx.) associated gases and compress & transfer them to Siahmakan GIS.

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 (GC):	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 EPD/EPC CONTRACTOR (GC) and approved by 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.

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2.0 SCOPE

This specification outlines the minimum process requirements for design of Associated Chemical Injection packages in Binak Plant.

3.0 NORMATIVE REFERENCES

3.1 LOCAL CODES AND STANDARDS

- IPS-E-PR-492 Process Requirements Of Caustic And Chemical Systems

3.2 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-PF-0002 PFD
- BK-GCS-PEDCO-120-PR-UF-0001 UFD
- BK-GCS-PEDCO-120-PR-PI-0018 P&IDs

3.3 ENVIRONMENTAL DATA

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

3.4 ORDER OF PRECEDENCE

In case of any conflict between the contents of this document or any discrepancy between this document and other project documents or reference standards, this issue must be reported to the CLIENT. The final decision in this situation will be made by CLIENT.

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	BK	GCS	PEDCO	120	PR	SP	0004	D03	

4.0 CORROSION INHIBITOR INJECTION PACKAGE

4.1 GENERAL



The corrosion inhibitor has to be utilized in gas pipeline Pig Launcher (PL-3201), Gas Discharge Drum outlet (V-2103), Gas Pig Receiver from BINAK outlet (PR-1002), Gas Pig Receiver from GOLKHARI outlet (PR-2002), Fuel Gas K.O. Drum outlet (V-2205), Slug Catcher Drum outlet (V-2105) and Inlet K.O. Drum outlet (V-2105).

The calculated values and injection points are preliminary and will be finalized after receiving vendor data.

The corrosion inhibitor package is in hazardous area.

4.2 PACKAGE DESCRIPTION AND REQUIREMENTS

VENDOR shall include all necessary equipment as described below to make a complete and operable unit. The minimum necessary equipment is shown in P&ID No. BK-GCS-PEDCO-120-PR-PI-0018. This shall include but not be limited to the following:

- One storage tank with mixer
- Four injection pumps
- Piping and all instrumentation required for safe operation
- Filters
- Pulsation dampeners
- Calibration pots
- Skid
- Package Piping with supports
- Vents and drains
- Dampener charge kits (one / skid)
- Internals and accessories
- Drip pan for skids
- Necessary platforms, ladders, handrails and davits
- Package Instrumentation & cabling to junction boxes
- Cable trays and support
- Package Electricals

4.3 PROCESS DESCRIPTION

The package will provide corrosion inhibitor to injection points.

Corrosion inhibitor will be stored in tank. The capacity of tank is estimated for 7 days storage of maximum corrosion inhibitor consumption rate.

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Injection is ensured by metering pumps, which will be stopped bay tank low low liquid level.

4.4 VENDOR SCOPE

The vendor shall provide a skid mounted injection package with all associated interconnecting pipe work and instrumentation to operate the package safely and efficiently.

The design and performance of storage tank and pumping facilities shall comply with all requirements.

4.5 SOLVENT SPECIFICATION

Gasoil could be used as solvent for corrosion inhibitor, with following specification:

- Specific gravity 15/15°C = 082 ~ 0.86 (Gasoil Solvent)
- Viscosity, Cst at 38°C = 2 ~ 5.5 (Gasoil as Solvent)

4.6 PUMPS SPECIFICATION

The inhibitor injection pumps are 2 types of pump; One set for High Pressure consumers (Gas Discharge Drum outlet + Gas Pipeline Pig Launcher) and One set for Low Pressure consumers (Gas Pig Receiver outlet + Gas Pig Receiver outlet + Fuel Gas K.O. Drum outlet + Inlet K.O. Drum outlet + Slug Catcher Drum outlet).

4.6.1 High Pressure

- Quantity: 2 (1+1)
- Rated capacity: 2.2 lit/hr
- Type: Reciprocating
- Discharge pressure: 62 barg
- Design temperature: 55°C

4.6.2 Low Pressure

- Quantity: 2 (1+1)
- Rated capacity: 3.06 lit/hr
- Type: Reciprocating
- Discharge pressure: 9 barg
- Design temperature: 55°C

Note: Corrosion inhibitor injection pump capacities are preliminary and will be finalized after receiving chemical supplier data.

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4.7 TANK SPECIFICATION

Capacity of tank is estimated for 7 days storage at rated pump capacity.

4.7.1 Operating condition

- Pressure: Atmospheric
- Temperature: Ambient

4.7.2 Design condition

- Pressure: Atm. + Full of Water
- Temperature: 55°C

4.8 PACKAGE CONTROL SYSTEM

Package control system is “Package type A” (Refer to Project Specifications for Instrumentation of Package Units) which is fully controlled by a Package Control Cabinet (UCP) located either on the skid package itself or remotely in the control building. UCP shall be connected to the PCS, ESD, for required monitoring, control functions and shutdowns as per P&ID.

5.0 METHANOL INJECTION PACKAGE

The required methanol is supplied from the existing plant.