طرح نگهداشت و افزایش تولید 27 مخزن

FAT PROCEDURE -BARE BLOCK MRT

نگهداشت و افزایش تولید میدان نفتی بینک

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Status:

IFA: Issued For Approval
IFR: Issued For Review
IFI: Issued For Information
AFC: Approved For Construction

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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.

2.0 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:	HAVAYAR
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.

1.0 Mechanical Running Test

1.1. Mechanical Running Test:

1.1.1. The test shall prove mechanical operation as complete unit (only Bare Body). Shop motor shall be used.

1.1.2. The compressor does not have to be pressure loader for mechanical running test. The compressor suction/discharge valves shall be dismantled. Voltage, current, operation speed, vibration, bearing temperature shall be checked

1.2. Test Condition:

- Compressor shall be tested at the specified number of revolutions.
- The testing may be performed at a number of revolutions within +10% and 5% of the specified number of revolutions.

2.0 Inspection and Test Item

2.1. The compressor will be operated at rated RPM for 4 hours without cylinder valve and it will be checking every 1 hours. Following parameters shall be check:

- Voltage & Current
- Operation Speed
- Vibration
- Bearing temperature and oil temperature

3.0 Acceptance criteria

3.1 Number of Revolutions The measurement shall be carried out by using a preliminary calibrated hand tachometer. The measurement of the number of revolutions shall be carried out of 2 or 3 times under the same condition and the average value shall be taken.

3.2 The testing may be performed at a number of revolutions within +10% and -5% of specified number of revolutions.

3.3 Vibration

As a rule, vibration shall be measured at the bearings or in the vicinity thereof with respect to three directions (Axial/Vertical/Horizontal)

Applicable code: ISO 20816-8

PART	mm/s (RMS)	PART	mm/s (RMS)
FOUNDATION BOLT	2.0	CYLINDER LATERAL	8.7
FRAME (TOP)	5.3	CYLINDER ROD	10.7

Note: The vibration measurement value measured by KWANDSHIN is a reference value because it is a project that supplies only the Bare Body without the compressor bed and support.

3.4 Temperature

During mechanical running test, bearing temperature shall be below ambient + 40 °C.

During mechanical running test, check the lube oil temperature and record it on the check sheet.

Following bearing temperature shall be measured:

1- Main bearing temperature drive side
2- Main bearing temperature non drive side

4.0 BAR-OVER Check

4.1 Piston clearance check

Rotating coupling by hand, and the piston may be brought into contact with the cylinder cover at the top and bottom dead point. And check the clearance with lead the acceptance clearance spec is as below:

Bottom = to be later