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| **طرح نگهداشت و افزایش تولید 27 مخزن** |
| **PDMS Model Review Report (60%) - Extension of Binak B/C Manifold****نگهداشت و افزایش تولید میدان نفتی بینک** |
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| D00 | JUL.2022 | IFC | F.Mosayebnejad | M.Fakharian | M.Mehrshad |  |
| **Rev.** | **Date** | **Purpose of Issue/Status** | **Prepared by:** | **Checked by:** | **Approved by:** | **CLIENT Approval** |
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| **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** |  | **PAGE** | **D00** | **D01** | **D02** | **D03** | **D04** |
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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.

As a part of the Project, construction of well location, access road, wellhead facilities (with electric power supply) for W007S shall be done. In addition, construction of new flowline from aforementioned well location to Binak B/C unit (with extension of relevant manifold) are in the Project scope of work.

**GENERAL DEFINITION**

The following terms shall be used in this document.

|  |  |
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| CLIENT:  | National Iranian South Oilfields Company (NISOC)  |
| PROJECT: | Binak Oilfield Development – Construction of Well Location, Wellhead Facilities, Electrification Facilities, Flowlines for W007S and Extension of Binak B/C Manifold |
| 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. |

1. **Scope**

This document presents all raised issues and made decisions during 60% model review session of PROJECT which should be followed and performed during continuation of PROJECT.

1. **NORMATIVE REFERENCES**

## The Project Documents

* BK-GNRAL-PEDCO-000-PI-PR-0001 3D-Model (PDMS) Review Procedure

## 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.

1. **KEY OBJECTIVES**

The purpose of 60% Model Review is to freeze any detail design of disciplines and to hand over to a production work. In principle, re-study of the comments raised in 30% review should not be executed as far as such comments have properly been followed. The following objectives shall be addressed during the model review:

1. Confirm compliance with project specifications with regard to access for equipment, valves, instruments, and other components to be operated.
2. Confirm whether sound design has been observed with regard to safety, operability and maintainability.

The model minimum content for the 60% model review shall be:

* + Actions resulting from 30% model review.
	+ Other piping (line sizes equal and greater than 2") with insulation information mostly completed.
	+ Orientation of major ladders/stairs/platforms on vessels and columns.
	+ Major platforms for valves and equipment and operation.
	+ Permanent cranes and hoisting beams.
	+ Dimensions of table tops, structures and steel construction.
	+ Secondary steelworks and bracing.
	+ Eye washer and safety shower locations.
	+ Firefighting system (hydrants, monitors, water spray systems, deluge valve manifolds).
	+ Instrument mounting stands, junction boxes, panels and cabinets of field.
	+ Above ground instrumentation, telecommunication and electrical cable tray routing above 300 mm.

Substantial review and comments by CLIENT / EPC/EPD CONTRACTOR of the plant model will be completed at the 60% model complete stage. The model will be updated reflecting comments to CLIENT’s verification.

1. **STATISTICS**

The followings indicate the number of modeled major items which were reviewed during 60% model review:

* + Number of modeled equipment: 8
	+ Number of modeled A/G and U/G Lines: 80
	+ Shelter, structure and building
	+ Electrical main trench
	+ Instrument main cable trench
	+ Instrument junction boxes
1. **DESCRIPTION AND CONCLUSIONS**

The 60% model review for “Binak Oilfield Development – Construction of Well Location, Wellhead Facilities, Electrification Facilities, Flowlines for W007S and Extension of Binak B/C Manifold” was held with representatives of CLIENT, EPD/EPC CONTRACTOR (GC) and EPC CONTRACTOR, on 1401/02/21. The subjects of discussion for the meeting were organized and considered based on the following issues:

* Re-study of the comments raised in 30%
* General layout and arrangement,
* Operation access rooms,
* Maintenance requirements,
* Installing location for instruments, platforms, and access to instruments,
* Lineup of primary lines.
* Instrument cable route and junction boxes location

It was stated that following items should be checked and corrected during 90% modeling and would be reviewed in 90% model review meeting:

## CLIENT stated that according to item 1 of MOM dated 1400/12/15, width of road to be considered at least 5 meter.



##

## According to item 2 of MOM dated 1400/12/15 and as was mentioned in PDMS Model review 30%, stated that last existing manifold line and also existing bypass of Flare line to be shown in 3D Model and related modification according to MOM to be applied.

##

## Inlet flange to Manifold area to be transferred to inside of Manifold fence.



## Regarding the surface water drain pit, it was stated that its pump and piping route to be shown in 3D Model.



## Regarding the size changes of manifold lines from 6” to 4”, it was stated that related size calculations to be sent to Client and after Client approval will be usable.

## Stated that flange to be considered at the end of extended headers, instead of cap.



## Regarding Syclones close to bypass of flare line which are located in passage of extended new lines, Engineering of Gachsaran Operation Company declared that mentioned Cyclones are related to burning system of Desalting unit & to contractor of flare gas and they can be replaced. Therefore it was stated that contractor to submit its replacement plan.

## Stated that Electrical & Instrument Cable Trays to be considered separate from unit devices.

1. **ATTACHEMENT 1**
2. **ATTACHEMENT 2**