

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض

شرکت تبدیترایا^ن HIRGAN ENERGY

عمومی و مشترک

شماره پیمان:

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SPECIFICATION FOR PLANT PIPING SYSTEMS PRESSURE TESTIN	١G
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پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GNRAL	PEDCO	000	PI	SP	0010	D03

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طرح نگهداشت و افزایش تولید ۲۷ مخزن

SPECIFICATION FOR PLANT PIPING SYSTEMS PRESSURE TESTING

نگهداشت و افزایش تولید میدان نفتی بینک

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D00	AUG. 2021	IFC	M.Asgharnejad	M.Fakharian	Sh.Ghalikar	
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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



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REVISION RECORD SHEET

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سدرد

 SPECIFICATION FOR PLANT PIPING SYSTEMS PRESSURE TESTING

 نسخه
 سریال
 نوع مدر که
 رشته
 سهیلات
 صادر کننده
 بسته کاری
 پروژه

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.24 - .74 - 9114

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0.0 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.

GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT: National Iranian South Oilfields Company (NISOC)

PROJECT: Binak Oilfield Development - General Facilities

EPD/EPC CONTRACTOR: Petro Iran Development Company (PEDCO)

Joint Venture of: Hirgan Energy - Design & **EPC CONTRACTOR:**

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.

The firm appointed by EPC CONTRACTOR and THIRD PARTY INSPECTOR (TPI):

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.

1.0 SCOPE

This specification gives amendment and supplement to IPS-C-PI-350(2), "Construction Standard for Plan t Piping Systems Pressure Testing "for hydrostatic and pneumatic pressure tests in the piping constructi on works for this project.



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It shall be used in conjunction with data/requisition sheets for present document subject.

(IPS-C-PI-350(2) covers the minimum requirements of pressure test to be carried out on plant piping systems. Upon completion of piping systems and before commissioning, it shall be pressure tested in order to prove the strength of the system, its tightness (absence of leaks) and the integrity of weldments and materials.

2.0 NORMATIVE REFERENCES

INTERNATIONAL CODES AND STANDARDS

ASME (AMERICAN SOCIETY OF MECHANICAL ENGINEERES)

ASME B 31.3 Process Piping

• ASME B 16.5 Pipe Flanges and Flanged Fittings

ASME Section V Non-Destructive Examination

ASME PCC-2 Repair of Pressure Equipment and Piping

LOCAL CODES AND STANDARDS

IPS (IRANIAN PETROLEUM STANDARD)

IPS-C-PI-350 (1)
 PLANT Piping system Pressure testing

IPS-C-IN-100 General Instrumentation

IPS-E-GN-100 Units

IPS-C-PI-370 Construction Standard for Transportation Pipelines

(Onshore) Pressure Testing

THE PROJECT DOCUMENTS

BK-GNRAL-PEDCO-000-PI-DC-0001 Piping Design Criteria
 BK-GNRAL-PEDCO-000-PR-DB-0001 Process Basis of Design

ENVIRONMENTAL DATA

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

3.0 DEFINITIONS AND TERMINOLOGY

No amendments or supplements are to state.



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4.0 UNITS

No amendments or supplements are to state.

5.0 GENERAL REQUIREMENTS (MOD.)

5.1 before commencing pressure test, the executor shall prepare and submit for the engineer approval a detailed test procedure and test package together with the pressure test flow sheets, P&IDs and hydro test diagram. (mod.)

6.0 HYDROSTATIC PRESSURE TESTING

- 6.1 TEST PRESSURE (MOD.)
 - 6.5.2 REFRIGERATION SERVICE TEST PRESSURE (DEL.)
 - 6.5.3 VACUUM SERVICES TEST PRESSURE (DEL.)
 - 6.5.5 JACKETED LINES TEST PRESSURE (DEL.)

6.7.23 (ADD)

Before injecting water into the pipeline, the suspended particles in the water should be brought below the permissible level using a filter or other possible methods.

6.9.7 (ADD)

In case, after the static water pressure test, the piping system is not put into service for a significant period of time, it is necessary to consider the necessary measures such as use of nitrogen gas with a positive pressure of at least 5 psi.

6.9.8 (ADD)

In order to dry the pipe, hot air blowing should be continued until it reaches below the dew point. The relative humidity inside the pipe shall be same as before the static test. At the same time, the air coming out of the compressor should also be free of any contaminants such as oil. The presence of CLIENT's representatives of is mandatory in all stages of the above operation.

7.0 PNEUMATIC PRESSURE TESTING

No amendments or supplements are to state.



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8.0 REPAIRS

No amendments or supplements are to state.

9.0 MANUFACTURING CERTIFICATE FOR PREFABRICATED PIPING

No amendments or supplements are to state.

10.0 DOCUMENTATION REQUIREMENTS

No amendments or supplements are to state.



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ANNEX 1 - HYDROSTATIC TEST RECORD LOG

1.SERIAL NO.	2.TEST PACKAGE NO.	3.DESCRIPTION	4.TEST PRESSURE	5. EXAMINATION PRESSURE	6. TEST START	7. TEST COMPLETED TIME	8 TEST START TIME	9.WATER QUALITY CERTIFICATION	10.RESULT