

 NISOC	<p>نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض</p> <p>عمومی و مشترک</p>							
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## طرح نگهداشت و افزایش تولید 27 مخزن

## SPECIFICATION FOR POWER & CONTROL CABLES

### نگهداشت و افزایش تولید میدان نفتی بینک

D03	Feb. 2022	AFD	H.Shakiba	M.Fakharian	M.Mehrshad	
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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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## 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.

### GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT:	National Iranian South Oilfields CLIENT (NISOC)
PROJECT:	Binak Oilfield Development – General Facilities
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 COMPANY (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 COMPANY 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 document gives amendment and supplement to IPS-M-EL-271 (2) “Material & Equipment for Low Voltage Cables & Wire” & IPS-M-EL-272(2) “Material & Equipment for Medium & High Voltage Power Cables” used in “Binak Oilfield Development”.

## 3.0 ENVIRONMENTAL DATA

The installation site is in south of Iran with corrosive, hot and high humid atmosphere. Therefore, all equipment shall be designed to fully comply with the performance specification in the environmental conditions. For more information refer to “Process Basis Design; section 11”.

## 4.0 GUIDANCE FOR USE OF THIS DOCUMENT

The amendments/supplement to the related IPS Standard(s) given in this document are directly related to the equivalent sections or clauses in the IPS Standard(s). For clarity, the section and paragraph numbering of the IPS Standard(s) has been used as long as possible. Where clauses in IPS are referenced within this document, it shall mean those clauses are amended by this document. Clauses in “IPS” that are not amended by this document shall remain valid as written.

For ease of reference, the clause or section numbering of the related IPS Standard(s) has been used throughout this specification. For the purpose of this specification, the following definitions shall hold:

**Sub. (Substitution):** The IPS Std. clause is deleted and replaced by a new clause.

**Del. (Deletion):** The IPS Std. clause is deleted without any replacement.


**Add. (Addition):** A new clause with a new number is added.

**Mod. (Modification):** Part of the IPS Std. clause is modified, and/or a new description and/or condition are added to that Clause.

## 5.0 ORDER OF PRECEDENCE

In case of conflict between requirements specified herein & the requirements of any other referenced document, the most approved stringent requirements of below listed items shall be considered based on the approval given by the owner’s representative:

- Purchase order
- Material Requisition

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- MTO & Data Sheet
- This Specification
- Drawing & Other Specification
- Reference Project Specification
- Iranian Petroleum Standard (IPS)
- Reference international Code & Standards

When the term “Authorized”, Authorization”, “Approval”, or “Approved” are used in this specification, it shall mean authorization or Approval from OWNER.

In case of any conflict between the project documents, the most stringent one shall be considered.

## 6.0 MODIFICATION TO IPS

### 6.1 Colour Indication for Phases

AC System	Dc System	Grounding
R-Phase: Red	P: Red	G: Green/Yellow
S-Phase: Yellow	N: Black	
T-Phase: Blue		
N: Black		

### 6.2 Cables Insulation

- LV Cables: XLPE insulation and PVC jacketed
- MV Cables: XLPE insulation and PVC jacketed
- For lighting equipment's located in hazardous area Fire Resistance cable shall be used.

### 6.3 Outer Sheath

- The colour of the outer sheath of all medium voltage & high power cables shall be red.
- The colour of the outer sheath of all low voltage power & control cables shall be black.
- The insulation colour of earthing cables shall be green/yellow.