

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)								
	WORK BREAKDOWN STRUCTURE								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده AA	تسهیلات 120	رشته PM	نوع مدرک WB	سریال 0001	نسخه V00	شماره صفحه: ۱ از ۴

طرح نگهداشت و افزایش تولید ۲۷ مخزن

WORK BREAKDOWN STRUCTURE

نگهداشت و افزایش تولید میدان نفتی بینک

V00	May. 2024	IFA	AAC	M.Fakharian	S.Faramarzpour	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
		CLIENT Doc. Number:				

status:

IFA Issued For Approval

IFI: Issued For Information

AFC: Approved For Construction

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)					 AAC			
	Work Breakdown Structure								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده AA	تسهیلات 120	رشته PM	نوع مدرک WB	سریال 0001	نسخه V00	شماره صفحه: ۴ از ۴

REVISION RECORD SHEET											
Page	V00	V01	V02	V03	V04	Page	V00	V01	V02	V03	V04
1	X					65					
2	X					66					
3	X					67					
4	X					68					
5						69					
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)		 				
	Work Breakdown Structure						
شماره پیمان: 9184 – 073 - 053			Page 5 of 6 شماره صفحه:۳ از ۴				
		Total Weight Factor	Weight Factor Sub-Level				
WBS			Level 1	Level 2	Level 3	Level 4	Level 5
1	project Air Cooler(Binak Oilfield Development , New Gas Compressor Station)	100	100				
1.1	Before Manufacturing	10		10			
1.1.1	Pre-Inspection Meeting (PIM)	1			10		
1.1.2	Documentation	8.8			88		
1.1.2.1	Vendor Print Index & Schedule (VPIS)	0.88				10	
1.1.2.2	Work Breakdown Structure	0.88				10	
1.1.2.3	Sub-vendor List	0.44				5	
1.1.2.4	Time Schedule	0.616				7	
1.1.2.5	Spare Part List	0.088				1	
1.1.2.6	Final Data Book Index	0.088				1	
1.1.2.7	Name Plate Drawing	0.088				1	
1.1.2.8	Final Data Book	0.088				1	
1.1.2.9	Inspection & Test Plan (ITP)	0.88				10	
1.1.2.10	Quality Control Plan (QCP)	0.088				1	
1.1.2.11	W.P.S & P.Q.R	0.088				1	
1.1.2.12	Surface Preparation and Painting Procedure (w/ Paint Datasheet)	0.088				1	
1.1.2.13	NDE Procedure	0.088				1	
1.1.2.14	Hydrostatic Test Procedure	0.088				1	
1.1.2.15	SAT (Performance Test) Procedure	0.44				5	
1.1.2.16	Installation, Operation & Maintenance Manual	0.44				5	
1.1.2.17	Thermal/Mechanical Calculation Books	0.44				5	
1.1.2.18	Process Data Sheet for AE-2101 (A/B/C)	0.088				1	
1.1.2.19	Process Data Sheet for AE-2102 (A/B/C)	0.088				1	
1.1.2.20	P&ID	0.44				5	
1.1.2.21	Utility Consumption List	0.44				5	
1.1.2.22	General Arrangement Drawings	0.88				10	
1.1.2.23	Fan Data Sheets	0.088				1	
1.1.2.24	Pulley Data Sheets	0.088				1	
1.1.2.25	Vibration Switch Data Sheets and Catalogue	0.088				1	
1.1.2.26	Motor Data Sheets	0.088				1	
1.1.2.27	Electrical Load List	0.176				2	
1.1.2.28	Steel Structure Calculation Books	0.176				2	
1.1.2.29	Steel Structure Drawings	0.176				2	
1.1.2.30	Foundation Drawings	0.176				2	
1.1.3	Measuring & Test Equipment Calibration	0.1			1		
1.1.4	NDT Personal Qualification for Air Coolers	0.1			1		
1.2	Material Inspection	40		40			
1.2.1	Verification of Raw Material (Including plate , tube , pipe)	20			50		
1.2.2	Verification of Raw Material (Including flange, gasket , plug , bolt/ nut , ...)	18			45		
1.2.3	Verification of Consumables Material (Including Welding Consumables, Abbrasive , paint.)	1.6			4		
1.2.4	Storage of materials & welding consumable	0.4			1		
1.3	During Manufacturing	25		25			
1.3.1	Material Identification and Traceability and TRANSFER OF MATERIAL IDENTIFICATION BEFORE CUTTING	5			20		
1.3.2	Visual & dimensional Inspection of joint Preparation (Beveling Inspection).	1.25			5		
1.3.3	PT Examination for , beveling,	1.25			5		
1.3.4	Fit-up and welding	1.25			5		
1.3.5	PT root pass and back gouging	1.25			5		
1.3.6	Ferrite number measurement	1.25			5		
1.3.7	PT of Welds	0.25			1		
1.3.8	Ultrasonic Examination	0.25			1		
1.3.9	Radiographic Examination & film interpretation	0.25			1		
1.3.10	Welding Major Repair	0.25			1		
1.3.11	Visual and Dimensional Inspection of Header Boxes & alignment check (Nozzle to flange and header)	1			4		
1.3.12	PMI of welding stainless steel	1.25			5		
1.3.13	Drilling & machining	1.25			5		
1.3.14	Visual & Dimensional Inspection after drilling & machining	0.25			1		
1.3.15	Pickling and passivation	1.25			5		
1.3.16	Visual & Dimensional assembly side frame	1.25			5		
1.3.17	Tube to tube sheet welding	1.25			5		
1.3.18	Finned Tube Inspection Visual and dimensional check	3.75			15		
1.3.19	Tube expanding	1.25			5		
1.3.20	PT for tube to tube sheet joint	0.25			1		
1.4	Final Inspection	10		10			
1.4.1	Inspection for Completed Tube Bundle	5			50		
1.4.1.1	Visual & Dimensional Inspection	2.5				50	
1.4.1.2	Hydro Test	2.25				45	
1.4.1.3	Drying , N2 purging	0.25				5	
1.4.2	Fan and driver assembly inspection	0.5			5		
1.4.2.1	Visual & Dimensional Inspection	0.25				50	
1.4.2.2	Balance test for pulley& belt	0.1				20	
1.4.2.3	Assembly of rotating parts inspection	0.05				10	
1.4.2.4	Balance test for fan blades and hubs and Shaft	0.05				10	
1.4.2.5	Louver visual and dimentional & coating check	0.05				10	
1.4.3	Electric Motor Inspection	0.5			5		
1.4.3.1	Type test	0.2				40	
1.4.3.2	Routine test	0.2				40	
1.4.3.3	IP & ExX certificate rewiew	0.1				20	
1.4.4	Instruments	0.5			5		
1.4.4.1	I/P Convector	0.25				50	
1.4.4.1.1	Visual inspection	0.2					80
1.4.4.1.2	Calibration	0.025					10
1.4.4.1.3	IP & ExX certificate rewiew	0.025					10
1.4.4.2	Vibration Switch	0.25				50	
1.4.4.2.1	Visual inspection	0.2					80
1.4.4.2.2	Test certificate	0.025					10
1.4.4.2.3	IP & ExX certificate rewiew	0.025					10
1.4.5	Steel Structure Inspection	3.5			35		
1.4.5.1	Material certificate check	1.75				50	
1.4.5.2	Steel member visual & Dimensional Inspection	0.7				20	
1.4.5.3	Welding of steel structure	0.7				20	
1.4.5.4	NDT after welding if any	0.175				5	
1.4.5.5	Surface Preparation and Painting Inspection (including Side frame, fan ring, plenum, ...)	0.175				5	

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	Work Breakdown Structure								
شماره پیمان: 9184 – 073 - 053			BK-GCS-AA-120-PM-WB-0001_V00		شماره صفحه: ۴ از ۴				
		Total Weight Factor	Weight Factor Sub-Level						
WBS			Level 1	Level 2	Level 3	Level 4	Level 5		
1.5	Spare part Inspection		5	5					
1.5.1	Material certificate review		2.5		50				
1.5.2	VT, DT, Quantities and packing		2.5		50				
1.6	Pre shippment Inspection		10	10					
1.6.1	Prepration for shippment (shipping mark Check)		4		40				
1.6.2	Packing and Marking check (Including Packing Condition and Quantity and spare part check)		1		10				
1.6.3	Touch up and Name plate stamping (befor attaching)		1		10				
1.6.4	manufacturer certificate of compliance		0.5		5				
1.6.5	Issue Inspection Release Note (IRN) / Shipping Release Note by TPA		1.5		15				
1.6.6	Final data book		1		10				
1.6.7	IC		0.5		5				
1.6.8	SAT	0.5		5					