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		Golgozar Iron & Steel Development Co.			
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Document Title:		INSTRUMENT & CONTROL & ELECTRICAL CABLE LIST FOR TRANSFER LINE		Sheet: 1 OF 5	
INSTRUMENT & CONTROL & ELECTRICAL CABLE LIST FOR TRANSFER LINE					
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REFERENCE DOCUMENTS		
ITEM	DOCUMENT TITLE	DOCUMENT NO.
1		
ABBREVIATION		
A: Analogue D: Digital P: Power RIO: Remote I/O Panel MCC: Motor Control Center VTa: Vendor To Advice		
NOTES		
(1): The routing of cables between the MCC and the LCS of pumps PU-06A and PU-06B is considered from the RWTP Substation Building (Steelmaking Area). The cables will be routed through the existing cable ladder and then through the new cable tray route. Noted that the supply of this cable tray is included in the Electrical documents/scope. (2): This cable is routed from the RWTP Substation Building (Steelmaking Area) through the existing cable ladder and then via the "new cable tray" route to the pumping station. From the cable tray in the pump station (above LCSs), the cable is routed to the underside of the UCP panel using a flexible conduit. (3): A Tank Cable Tray is used along this route, which is shared for carrying the LIT, LS, and UV signal cables. (4): The dimensions and quantities of the Tank Cable Tray are as follows: 300 mm wide galvanized cable tray, 55 meters of straight sections, Two L-shaped bends for corner transitions, One T-junction. (5): A vertical cable tray (300mm width, 800mm length) is considered on the tank wall to guide the signal cables of the valves after exiting the ground from the Heavy Rigid PVC Conduit to the Tank Cable Tray. (6): Clamps shall be wall-mounted type suitable for installation on walls and shall be selected according to the pipe size. (7): The quantity of "Clamps & Accessories" for installation of Galvanized pipes, includes one complete set of clamp with two screws and the corresponding wall plugs (rawl plugs) for every 1.5 meters. (8): The installation bulk materials for the cable trays include one set of brackets, supports, and two anchor bolts (roll bolts) for every 1.5 meters of tray length. (9): For Cable Tray details refer document : 157DEDG1540101-00 (10): Refer to document "<CONTROL & INSTRUMENT CABLE ROUTE FOR TRANSFER LINE>" for New cable tray specifications. (11): Starting from the transmitter with flexible conduit, the cable runs up along the tank wall via galvanized conduit, passes over the tank roof, then descends along the opposite side of the tank and enters the manhole. From there, it follows the existing cable route (as shown in the Cable Route drawings) and continues to Panel CP-03 located in the RO Kowsar Control Room. (12): POWER cable and Signal cable of FIT-1003 shall be routed separately. Also, in cable trays and ladders these cables shall be separated with standard distance.		

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Item	Cable Tag	From	To	Cable Size	Cable Type	Cable Code	Voltage	Cable Length(m)	Cable Tray	Gland Size	REMARK
1	LIT-1003-UCP	LIT-1003	UCP	1P*1.5 mm2	RE-Y(st)Y fl PiMF	ANALOG	300/500 V	50	NOTE (3)	M20	
2	LIT-1004-UCP	LIT-1004	UCP	1P*1.5 mm2	RE-Y(st)Y fl PiMF	ANALOG	300/500 V	50	NOTE (3)	M20	Rev: 01
3	LS-1003-UCP	LS-1003	UCP	2C*1.5mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	50	NOTE (3)	M20	
4	LS-1004-UCP	LS-1004	UCP	2C*1.5mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	50	NOTE (3)	M20	
5	PS-1005A-UCP	PS-1005A	UCP	2C*1.5mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	10	-	M20	4C*spare
6	PS-1005B-UCP	PS-1005B	UCP	2C*1.5mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	7	-	M20	4C*spare
7	UV-1007-UCP	UV-1007	UCP	10C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	85	NOTE (3), NOTE (5)	M32	4C*spare
8	UV-1008-UCP	UV-1008	UCP	10C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	85	NOTE (3), NOTE (5)	M32	4C*spare
9	PU-06A-MCC	MCC	UCP	16C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	142	NOTE (2)	M40	2C*spare
10	PU-06A-LCS	LCS	MCC	10C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	0/6/1KV	130	NOTE (1)	-	4C*spare
11	PU-06A-LCB-AMM	LCS	MCC	3C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	0/6/1KV	130	NOTE (1)	-	AMMETER
12	PU-06B-MCC	MCC	UCP	16C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	300/500 V	145	NOTE (2)	M40	2C*spare
13	PU-06B-LCS	LCS	MCC	10C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	0/6/1KV	130	NOTE (1)	-	4C*spare
14	PU-06A-LCB-AMM	LCS	MCC	3C*1.5 mm2	RE-Y(st)Y fl	DIGITAL	0/6/1KV	130	NOTE (1)	-	AMMETER
15	RO-INT-01	RO KOWSAR	UCP	6-core, 9/125 um	single-mode, armored	Fiber Optic (Profibus)	-	1300	-	PG13.5	Interlocks: I-01, I-01-01, FIT-1003
16	CE	UCP	Clean EARTH	1×16 mm²	Cu, Green/Yellow, PVC insulated	EARTH	-	SITE RUN	SITE RUN	-	
17	PE	UCP	Protective EARTH	1×16 mm²	Cu, Green/Yellow, PVC insulated	EARTH	-	7	-	-	
18	UCP UPS Power	UPS	UCP	2*(3*2.5 mm2)	N2XY	POWER	0/6/1KV	2*5	-	PG16	
19	UCP Normal Power	LP	UCP	2*3*2.5 mm2	N2XY	POWER	0/6/1KV	5	-	PG16	
20	UPS Power	LP	UPS	2*(3*2.5 mm2)	N2XY	POWER	0/6/1KV	2*5	-	PG16	
21	HMI Power Supply	HMI	Non-UPS (UCP)	VTA	VTA	VTA	-	VTA	-	-	
22	HMI Network Cable	HMI	CPU (UCP)	VTA	VTA	Profibus	-	VTA	-	-	
23	PU06A-P-C	STEEL MAKING PLANT RO	TRANSFER LINE PUMP STATION PU06A	3X16 mm2	N2XY	POWER	0/6/1KV	130	NOTE (9)	PG29	
24	PU06B-P-C	STEEL MAKING PLANT RO	TRANSFER LINE PUMP STATION PU06B	3X16 mm2	N2XY	POWER	0/6/1KV	130	NOTE (9)	PG29	
25	FIT-1003-UCP	FIT-1003	UCP	1P*1.5 mm2	RE-Y(st)Y fl PiMF	ANALOG	300/500 V	130	NOTE (11)	M20	LOCATION: RO KOWSAR
26	FIT-1003-UCP-PS	FIT-1003	UCP	3*1.5 mm2	RE-Y(st)Y fl PiMF	POWER	300/500 V	130	NOTE (11),(12)	M20	LOCATION: RO KOWSAR



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NOTE:

A: Analogue
 D: Digital
 P: Power
 RIO: Remote I/O Panel
 MCC: Motor Control Center
 Cable Tray width: 300mm