



**TECHNICAL ADDENDUM\_01**  
**TO**  
**220kV Switchyard & Associated facilities**  
**Bid Document No :6695-CMG-G00-CA-0021**  
**1.0 MTPA ALUMINA REFINERY at Damanjodi, Odisha, India**



Consultant :- thyssenkrupp Industrial Solution Pvt. Ltd.

OWNER : NATIONAL ALUMINIUM COMPANY LIMITED (NALCO)

The terms, Conditions & Specifications of Bidding Document stands Modified / Clarified to the extent indicated under column "Description of Change" . All other terms & conditions, stipulations & specifications of bidding document shall remain unaltered.

Sr. No	Reference				Discipline	Document No.	Rev.	Document Description	Subject	Description of Change
	Vol.	Sec.	Part	Clause No.						
1	2	6	2	5.3.4.n)	Electrical	6695-ELT-526-CA-0002	02	Scope of work for Contractor-Electrical	Clause updation	Following sentence shall be added to the referred clause - "LSTK Contractor shall consider two separate FO cables to each 8nos. Unit substations for the line differential relay".
2	2	6	2	5.3	Electrical	6695-ELT-526-CA-0002	02	Scope of work for Contractor-Electrical	Clause updation	Following sentence at the end of the 6th paragraph of the clause 5.3 shall be deleted. "LSTK Contractor scope includes supply of new central unit & interface with existing central unit in existing busbar protection panel." Following sentence at the end of the 6th paragraph of the clause 5.3 shall be added. "LSTK Contractor scope includes the new bay units which shall be connected to the existing central unit. LSTK Contractor to ensure sufficient ports are available in the existing central unit. In case sufficient ports are not available in the existing central unit, LSTK Contractor to consider necessary cards or other hardware in order to add new ports in the existing central unit."
3	4	1	1	4.1.1.4	Electrical	6695-ELT-526-FA-0001	02	SLD - 220kV Switchyard & New 11kV Switchgear building	Busbar rating	Busbar rating of HT-212 (Bus-A, Bus-B, BusC) shall be updated as - "3ph, 50Hz, 11kV, 3500A, 40kA for 3 sec, AL/CU Bus".
4	4	1	1	4.1.1.4	Electrical	6695-ELT-526-FA-0001	02	SLD - 220kV Switchyard & New 11kV Switchgear building	CT accuracy	Accuracy of CT-2 Core-1 (Metering core) for I/C-3 & I/C-4 shall be updated as "0.2".
5	4	1	2	40, 41	Electrical	6695-ELT-G00-EC-0039	01	Technical Specifications - 220kV Circuit breaker Part-II Design datasheet	Clause updation	Clause for closing coil & opening coil shall be updated as below - " Consumption - W - * " .
6	4	1	2	2.1.b	Electrical	6695-ELT-G00-EC-0051	01	Technical Specifications - High Voltage Switchgear panels (11kV single bus & 33kV)	Clause updation	Following sentence shall be added to the referred clause in Part-I General Specification - "Force cooled is also acceptable in case natural air cooled type is not available. All necessary sensors, interlocks & indications shall be provided for the operation of the force cooled fans"
7	4	1	2	7.0	Electrical	6695-ELT-G00-EC-0051	01	Technical Specifications - High Voltage Switchgear panels (11kV single bus & 33kV)	Clause updation	Last sentence of the referred clause shall read as - "LSTK Contractor shall also supply the following tools & tackles. Quantity indicated is for 11kV HT-212 switchboard".
8	4	1	2	7.0	Electrical	6695-ELT-G00-EC-0051	01	Technical Specifications - High Voltage Switchgear panels (11kV single bus & 33kV)	Clause updation	Following clause shall be added at the end of the referred clause - "LSTK Contractor shall also supply the following tools & tackles. Quantity indicated is for both 33kV (HT213 & HT-214) switchboards - • Circuit breaker racking handle – 1no. • Manual spring charging handle – 1no. • Earthing trolley for cable earthing – 1no.
9	2	3	3	125	Procurement	6695-PPM-526-BA-0001	01	Vendor List (LSTK - 12) - Switchyard Package	Addition of Vendor	Following vendor shall be added for Sr.No.125, Item - SCADA/Substation Automation System "Emerson"



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	Vol.	Sec.	Part	Clause No.							
10	2	3	3	126	Procurement	6695-PPM-526-BA-0001	01	Vendor List (LSTK - 12) - Switchyard Package	Addition of Vendor	Following vendor shall be added for Sr.No.126, Item - Cables EHV - 220kV - XLPE Insulated "KEI Industries Pvt.Ltd."	
11	4	1	2	Annexure-1	Electrical	6695-ELT-G00-EC-0036	01	Technical Specifications - SCADA system	Addition of document	Annexure-1 SCADA system Relay Integration matrix. Refer Attachment-1	
12					Electrical			220kV Switchyard Equipment Layout	Addition of documents	Native file of 220kV Switchyard Equipment Layout. Refer Attachment-2	
13					Piping			Overall Plot plan	Addition of documents	Native file of Overall Plot plan. Refer Attachment-3	
14	5	3	-	-	Piping	1201-00-16-47-0102	06	Existing Fire water network drawing	Addition of documents	Native file of existing fire water network drawing. Refer Attachment-4	
<b>Prepared</b>					MSD	<b>Checked</b>		SJP	<b>Approved</b>	SJP	
<b>Date</b>					03.07.2019	<b>Date</b>		03.07.2019	<b>Date</b>		03.07.2019
<b>Sign</b>						<b>Sign</b>			<b>Sign</b>		