JHARKHAND STATE CRICKET ASSOCIATION

INTERNATIONAL STADIUM COMPLEX,

H.E.C. CAMPUS, DHURWA, RANCHI- 834004.

Name of Work: Design, engineering, manufacture, testing, packing, supply, transportation, unloading, storage, erection, testing & commissioning of LED based High Mast illumination system for Oval ground at J.S.C.A. International Stadium at H.E.C. Campus, Dhurwa, Ranchi.

ANNEXURE - II

			Tender No.: JSCA/RNC/166/61/	2021	15-02-2021
S.No	RFP Document Reference (Section No., Page No.)	Page	Content of the RFP requiring clarification	Clarification or relaxation Sought	Reply of JSCA
Α	В	С	D	E	F
1	Technical Specification -Part- II - (1.4) Specifcation for Illumination of the Oval Ground	5	Various levels of Illumination required	As per specification, National Level HDTV telecast is mentioned for Cricket Ground. This vertical lux level mentioned in the tender document(Pitch: 1000, Infield: 750, outfield: 300 lux) can be good for normal video recording & not for HDTV telecast. As this ground is adjacent to Main International level cricket ground, this play ground can be used for practice level or national level matches without CTV/HDTV transmission. Hence, very high vertical lux level is not required for practice / national level ground. Please review it & confirm the vertical lux level once again.	Standard colour Telecast shall be considered. However, the LUX level specified shall be considered for the design.
2	High mast technical specification,Part-II	5	Horizontal illuminance level _ National level	Horizontal Lux level for national level mentioned n the tender is Pitch: 1500, Infield: 1000, Outfield: 700lux. Due to huge variation in between pitch & outfield, the ground looks darker in outfield area. To reduce the variation of lux level in the play ground, the lux level can be proposed as pitch: 1250lux, infield: 1000lux & Outfield: 750lux avg. horizontal with uniformity as mentioned in the tender. It will look more uniform ground under floodlight condition. Please review & confirm.	LUX level as specified shall be considered.
3	High mast technical specification,Part-II	5	CRI: 90	If this ground shall be used for practice/national level non televised level matches., it is suggested to consider the CRI of > 70 to have better lumen & less power consumption. Please review & confirm	Provision for telecast is being made. CRI > 90 shall be considered.
4	High mast technical specification,Part-II	31	Layout Drawing of the Stadium	Stadium Plan Layout Drawing is required in auto-cad format for preparing illumination design	Being provided.
5	High mast technical specification,Part-II	31	Canopy Details & Cross Sectional Draiwng of the Stadium	Kindly provide Canopy Details & Cross Sectional Drawing of this Stadium -if any.	Your representative has visited the site. What specific details are required? Please specify.
6	High mast technical specification,Part-II	11	These shall be of proven design with installations being in operation for 1 year or more.	This is our new product so we will submit proven design details with other sports light products with installations being in operation for one year or more.	Accepted. Tender evaluation shall be done on the basis of the documents and data submitted.
7	High mast technical specification,Part-II	12	The LEDs based lamp shall be made of high energy, high efficiency LEDs assembled on metal core printed circuit board securely fixed in an Aluminium Die Cast casing with a polycarbonate/similar lens cover to provide highly focused light to the ground.	As per this clause product is required with PC cover with molded lens. For such reputed project please consider product with Toughened glass as it will incresae safety level of product.	Luminaire with toughened glass shall also be accepted.

8	High mast technical specification,Part-II	14	One repeater screen touch panel with 42" TFT screen of the main Electric Control Room shall be provided at a suitable location as determined by the administrative authority of the stadium to enable operations of light switching arrangement	Please review and confirm that 42" TFT required for visulaization of illumination system or it is required for control of illumination system with this touch panel screen	It is required for control and Fault annunciation of the system.ouch screen control has not been envisaged. If visulaization can also be done, it shall be welcome.
9	High mast technical specification,Part-II	14	One repeater screen touch panel with 42" TFT screen of the main Electric Control Room shall be provided at a suitable location as determined by the administrative authority of the stadium to enable operations of light switching arrangement	If this screen touch panel with 42" TFT screen required to control illumination system then we suggest to consider size of 18" in place of 42"TFT. Please review and confirm.	18" screen is too small for the purpose. You may offer as per your system design.
10	High mast technical specification,Part-II	2	Testing of Soil	Please provide SBC report for High Mast locations to prepare foundation designs for High Mast.	soil Bearing capacity of 15 MT/m2 shall be taken for Bidding purposes.
11	High mast technical specification,Part-II	2	Design and construction of civil buildings for Main Electrical Rooms, Electrical rooms for each high mast and main control room complete in all respects including ventilation/air conditioning, Lighting, furniture, etc	Please clarify who will have scope of air conditioning as it is not mentioned in specification for civil works at page no25.	All amenities in the building shall be in the scope of the Bidder.
12	High mast technical specification,Part-II	24	The Luminaires shall be supplied with a warranty period of 5 years. In case of failure of Luminaires during warranty period, the contractor shall replace the Luminaires	Please delete replacement clause as it is not viable. In case if LED luminaires will fail during warranty period, rectification will be provided by replacing faulty items.	Not accepted.
13	High mast technical specification,Part-II	24	All equipment shall be supplied with a warranty period of 2 year. The equipment which fail during the warranty period shall be replaced by the Contractor without any price implication to Employer	Please delete replacement clause as it is not viable. In case if any product will fail during warranty period, rectification will be provided by replacing faulty items.	Not accepted.
14	High mast technical specification,Part-II	25,29	Dimensions of electrical room	Specifications are mentioning two different dimensions for electrical rooms as given below: Appx size: 3mx2.5mx2.5m and Approx size of 2x1.5x2.5m LxWxH. Please review and clarify which one is to be considered?	Electrical room size shall be assessed by the bidder based on equipment sizes, statutory clearances and icnluded in the bid. Main Electrical Room shall be on the ground floor.
15	High mast technical specification,Part-II- Bill of Quantities. Item No.02 &14.	27,28	Design, manufacturing/fabrication, supply transportation, unloading, and erection of Ladder from foundation to Top platform of the high mast suitable for climbing by men for maintenance of equipment at top platform with suitable guard cage and intermediate platforms. Design, Engineering, manufacture, testing, supply, erection, testing and commissioning of Electric Hoists, 500 kG, 35 m hoisting height, 2m travel as per applicable standards with control at foundation level of High Mast.	Specification is asking for safety ladder with rest platforms at difffrent levels and also asking for electrical hoist for lifting material from top to bottom of High Mast. Both items can not be provided in a High Mast system so please review and clarify which one is required with High Mast system.	The high mast with ladder system is specified. No provision of Man Rider is there. If Electric Hoist for material is not feasible, please mention it in your bid. It will be presumed that the maintenance crew will lift the tools and material to top manually. 5 year warranty & AMC are in the scope of bidder/contractor.

16	High mast technical specification,Part-II- Bill of Quantities. Item No.14.	28	Design, Engineering, manufacture, testing, supply, erection, testing and commissioning of Electric Hoists, 500 kG, 35 m hoisting height, 2m travel as per applicable standards with control at foundation level of High Mast.	Kindly note height of electric hoist shall be equal to height of resting platform at the top of High Mast for lifting of man and material. Capacity of hoist shall be 350 KG.	Not applicable, if not being considered. 350kG or smaller capacity with appropriate lift height may be considered, if being provided in addition to ladder-platform system.
17	High Mast light tender document part-l	3	Tender and EMD fee payment	Please provide PAN and GST registration copy for Payment.	The bidder shall submit the Tender Money and EMD in the form of Bank DD as specified.
18	High Mast light tender document part-l	4	The Bidder must have experience of having executed High Mast [30 meter high or more] Illumination systems for Stadiums hosting National Hockey, Football or Cricket events for at least three stadiums during last five years out of which at least one High Mast Illumination System shall be based on High Power, High Efficiency, LED based luminaires for National Stadiums hosting Cricket Tournaments which must be operational for a period of atleast 1 (one) year as on 31-12-2020	Being a new technology in lighting of stadium mast it is not possible to achieve required PQ criteria with LED based flood lighting system. We had executed many projects but with HID based flood lighting system. Please change similar work criteria as "The Bidder must have experience of having executed High Mast [30 meter high or more] Illumination systems for Stadiums hosting National Hockey, Football or Cricket events for at least three stadiums during last five years out of which at least one High Mast Illumination System shall be based on High Power, High Efficiency, HID/ LED based luminaires for National Stadiums hosting Cricket Tournaments which must be operational for a period of atleast 1 (one) year as on 31-12-2020".	Criteria revised.Refer revised Prequalifications.
19	High Mast light tender document part-l	5	Electric Hoists as per the specifications and applicable standards for hoisting luminaires, etc. to top platform	Please note in case of ladder with rest platforms at various heights, electric hoists will not be applicable.Kindly review and confirm.	Noted. Refer replies above.
20	High Mast light tender document part-l	7	The Bidder shall, on or before the date given in the Notice Inviting Tender, submit his bid in sealed envelopes clearly marked with the name of the Tender.	Please confirm if only hard copy submission of tender documents is applicable or we can submit our bid online at portal.	The bid shall be submitted only in hard version by due date.
21	High Mast light tender document part-l	13	5.6 Payments terms for the replacement of halogen lamps on High Masts of the main stadium shall be as under	Mentioned work is also part of BOQ and contract then how payment for this work will be seperately done from contract value. Please clarify.	The payment terms are indicated under clause 5.6 page 13. The work order shall indicate this separately and the Billing Schedule shall be drawn accordingly.
22	Technical specification, part II, 1.1.vii	13	PLC Arrangements will have Luminaire group control as well as Luminaire wise On-Off switching for testing and monitoring.	IS the PLC envisaged to be used for luminaire dimming purpose also? Do the driver provided along with LED luminaire need to be dimmable type?	The same shall be as per Bidder's standard practice.
23	Technical specification, part II, 6	22	Cable Specification	We are consideing the same to be applicable for Solar system and are not related to High Mast Lighting system. Please confirm.	There is no Solar system here. What is your specific question?
24	Technical specification, part II, 6	25	Swichgear rating of LT Power Distribution Board.	LT Power Distribution Board incomer & outgoing swtichgear rating to individual HMDB along with its spare shall be depended on the overall lighting load based on the design prepared to achieve the required lux level.	Question not clear.
25	Technical specification, part II, 15	25		Kindly allow us to consider XLPE insulated cable as per IS 7098 in place of IS 1554 & cable size as per system design against specified.	Accepted. The same shall be clearly specified in the Bid.

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26	Technical specification, part II, 15	25	The power supply cables from New Distribution Board to the Distribution Boards of each High Mast shall also be 1.1 kV grade, 3-1/2 core 70 sq. mm Aluminium Conductor, PVC sheathed, armoured and overall PVC sheathed of approved make conforming to IS-1554 Part-I.	Kindly allow us to consider XLPE insulated cable as per IS 7098 in place of IS 1554 & cable size as per system design against specified.	Accepted. The same shall be clearly specified in the Bid.
27	Technical specification, part II, 15	25	The Tenderer shall also plan and supply an Emergency Lighting Distribution or providing power to Emergency Luminaires in case of a Black out. It will consist of an incoming 415v, 100A, 4-Pole MCCB feeder	Kindly confirm: 1. The lighting lux level reqirement for Emergency lighting system. 2. Whether separate Distribution Board should be considered located in Electrical Room & shall be common for extending supply Emergency Luminaires on all HM OR be made part of HM DB. 3.In case part of HM DB, kindly confirm source detail. 4. Should we consider Panel specification informed for HMDB? 5. Any back up supply arrangement like DG set/UPS for normal/emergency system is to be considered in our scope? Do we need to provide changeover arrangement in HM DB?	The Item is deleted. The specifications stand modified accordingly.
28	Clause 4.4	Pg 17 of part 2	The bus-bars are designed for fault level up to 50kA r.m.s for one second and to cater to loads up to 1600A at 415V. 3 Phase, 4 Wire systems and supported or DMC/SMC insulators. The panels are type tested for 50kA fault level at CPRI Removable neutral links are provided wherever required. Cable Chambers are provided with liberal cable entry space and are also suitable for either cable bus duct entry from top or bottom.	Rating of bus bar is too high as per incoming size of circuit breaker is 400A	Rating of incoming Circuit Breaker may be changed to 630A. The fault level of Distribuution Board shall be 42 KA.
29	Clause 15	Pg 24 of part 2	JSCA may inspect & witness the tests for the critical equipment at the manufacturer's works prior to dispatch to site. Contractor shall make all arrangements for such inspection by the JSCA/Inspector appointed by owner	No . of Person in involved in the inspection and what are the critical equipments	The critical Equipment will be the Luminaires and associated control and equipment, the High Mast, PLC. Number of Inspectors may be 2-3. To be decided later.
30	Clause 15	Pg 25 of part 2	1 -number 415v, 400 Ampere Air Circuit breaker complete with protections.	Can we give 400A MCCB in place of ACB because ACB is normally use in case of more than 800A	400 A Circuit Breaker may not be adequate and 630 A , ACB may be required. Incomer ACB of 630A shall be used.
31	Annexure 2 point 19 and BOQ item no.15	Pg-23 of part 1 and pg 28 of part 2	The Foundation design has been carried out for soil load bearing capacity of 1.5 T/m2 but In BOQ item no.15,Design and casting of suitable raft type of foundation for the above high mast towers. The safe bearing capacity of the soil shall be obtained by contractor by undertaking soil investigation report. The foundation shall be designed for wind pressure 44m/sec. Bidder may carry out provisional design for quotation	Please confirm soil bearing capacity	Soil bearing capacity of 15 MT/m2 shall be used for the Tender purpose but the successful tenderer shall get the soil tested.

32	General Query		Tender document describes 2 Year "in build warranty services" & "3 year Annual Maintenance Services".	What is the expectation from customer during 2 year inbuild warranty and how it is different from AMC?	The services shall be provided for routine and breakdoen maintenance. During first 2 years all the equipment shall be covered under warranty. All the replacement of spares and defective equipment shall be replaced by the Contractor free of cost to JSCA apart from the free service. For next three years, The contractor shall provide free routine and breakdown maintenance. However, the cost of spares shall be borne and paid by JSCA. The Luminaire asembly shall however, be supplied free of cost as the warranty period of Luminaire assembly is 5 years.
33	General Query		Scope of Services under AMC is Table Top or Comprehensive (Un-Installation of faulty & reinstallation of repaired)?	Clarification required	Comprehensive routine and breakdown maitenance shall be provided so that the system is ready for use at a short notice.
34	Part B	Tech. Spec. Part 2, Page 29	scope of AMC includes Routine & Preventive Maintenance.	What is the frequency of PM to be assumed.	The Bidder shall indicate the frequency considered by him.
35	Part B	Tech. Spec. Part 2, Page 29	It is written that cost of spares to be reimbursed separately.	Need clarity on this.	During 3-5 years, the cost of spares [excluding the Luminaire assembly] shall be reimbursed. The Bidder shall quote for cost towards manpower, consumables, tools and tackles.
36	General Query		Our understanding on in-build warranty and annual maintenance services is that lux level checks and aiming is not part of the scope.	Confirmation required	The aiming and Lux level checks shall also form part of the AMC services. The Bidder shall indicate the rate for Aiming and lux level check and recommended frequency for such checks.
37	General Query		What would be the payment terms of AMC?		AMC payment shall be on quartely basis.
38	General Query		There is no manpower support during matches/events mentioned in the tender document. The same if required, shall be charged separately.	Clarifiction required	No manpower support is foreseen as the system shall be simple and easy to operate. The bidder may indicate optional price.
39	clause no.6.4	Tender document part 1 page no.13	The total liability of Contractor under Liquidated damages under the contract shall be limited to 15% of the Total Contract Value.	Request you to make it as The total liability of Contractor shall be limited to 10% of the Total Contract Value.	The request for change is not accepted.

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40	clause no.6.1	Tender document part 1 page no.13	The Contractor shall pay liquidated damages to the employer at the rate one percent of Total Contracted Price per week (or part thereof) for the period that the completion date is later (delayed) than the scheduled completion date. The total amount of liquidated damages shall not exceed 10 percent of the contract price. Payments of liquidated damages shall not affect the contractors other responsibilities.	The Contractor shall pay liquidated damages to the employer at the rate 0.5 percent of Total Contracted Price per week (or part thereof) for the period that the completion date is later (delayed) than the scheduled completion date. The total amount of liquidated damages shall not exceed 5 percent of the contract price. Payments of liquidated damages shall not affect the contractors other responsibilities.	The request for change is not accepted.
41	Clause 3 (b)	Tender document part 2 page no.13	 b) Status of the individual Luminaire for all the masts, i.e. 'ON' and 'OFF' status. c) Indication of faulty Luminaire, i.e. not working. d) Indication of cumulative hours each Luminaire has been in 'ON' state. The value shall be stored in PLC memory. e) Fault annunciation. 	We request to please see these functions are required or not.	The functions are required for effective maintenance. Similarly, the hours the luminaires are 'ON' is required to know the life of Luminaire and can be easily stored and displayed.
42	Clause-1.1(v)	Tech. Spec. Part 2, Page 2	Design, manufacture, testing, supply, erection, testing and commissioning of luminaires as per relevant ICC standards, Indians Standards and specifications.	Lighting spec is not accordance with ICC standards	Please be specific.
43		Technical Specification Part 2, Page 2	Design, manufacture, testing, supply, erection, testing and commissioning of Control and Protection panels, wiring/cabling, etc. as per all relevant ICC standards, Indians Standards and specifications. This shall include PLC based systems to automatically control the illumination levels of the ground.	PLC is an old technology. It is suggested to use more recent technologies for control of illumination level at ground.	The bidder may use latest technology to provide the controls and data/fault annunciation and indicate the details. The hardware shall be sturdy and reliable. It should be servicable for next 10 years.
44	Clause 1.4	Tech. Spec. Part 2, Page 5	requirements of various levels of Illumination required for different kind of matches	Lux level is not as per ICC standards. For vertical lighting level uniformity ratio is to be mentioned.	Vertical Lghting level uniformity ratio is now included.
45	Clause 1.4	Tech. Spec. Part 2, Page 6	Flicker free lighting arrangement particularly in slow motion broadcast needed and conformity to the same shall be submitted.	Flicker value to be defined as <1%. As per EN12193:2018 clause no 7.3.8. Test report of the same to be submitted along with the bid.	Accepted. The Flicker value shall be <1% as per EN12193:2018. Test report shall be submitted by the Bidder alongwith his bid.
46	General Query	NA	should be >80 and minimum requirements it should be >60.	latest requiement of live transmission to sports events.	Not being specified.
47	Clause-1.5 (Platform and Head frame of the Mast.)	Tech. Spec. Part 2, Page 9	Other factor to be considered as follows: Basic wind speed for Design 44 m/sec.	as per IS875 Ranchi wind speed is 39m/sec. Request JSCA to clarify the points.	Please proceed as per specification.

48	Part-II, Clause-2.0	Tech. Spec. Part 2, Page 11	FLOOD LIGHTS [LUMINAIRES WITH LEDs]	Request to add submission of test reports for the luminaire to be submitted such as LM-79, LM-80, TTC along with the bid. Also third party inspection clause to be provided.	All bidders shall submit applicable test reports including type tests for the luminaires offered so that the suitability, quality, reliability in the severe environment can be assessed. The tets reports shall be from reputed labs.
49	Clause 2.1	Tech. Spec. Part 2, Page 11		As LED luminaire with high power LED is a new techology for Sports lighting application, therefore we request JSCA to include ongoing projects in India in addition to installed projects.	Accepted. The bidders may include ongoing projects where the bidder has contracted to supply the High Power High efficiency Luminaires. The Bidder shall furnish the detailed specifications of Luminaires and quantity in each case.
50	Clause 2.2 (b)	Tech. Spec. Part 2, Page 11	The body of Flood light luminaire shall be made of Die cast Aluminium.	Request to make it as single piece die cast aluminium body with single point aiming facility.	Not accepted since it may be specific to a brand.
51	Clause 2.2 (C)	Tech. Spec. Part 2, Page 11	The Enclosure shall be IP 66 class.	IK rating is also important parameter for luminaires. Request to incorporate minimm requiremetn of IK08 for the luminaire.	Accepted. The Luminaires shall have IK08 rating or better.
52	Clause 2.2 (e)	Tech. Spec. Part 2, Page 11	The LED driver unit shall operate on voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral.	General practice is 120-277VAC. Request to make it normal line voltage. Also it is suggested to mention that one luminaire should have one driver only, to reduce no of servicable points	Request is not clear. The bidder can provide 120-277 V AC. The Luminaire shall have one driver for each luminaire.
53	Clause 2.2	Tech. Spec. Part 2, Page 11	FEATURES of luminaires	request to put the guideline for the lumiaire selection to be provided, such as- Min lumen o/p, min wattage, system efficacy, beam angle, peak intensity at 0deg, SDCM, Lifetime	The bidder shall provide the best Luminaires.
54	Clause 2.2 (h)	Tech. Spec. Part 2, Page 12	The driver shall be designed to protect against damage resulting from electrical shorts and overloaded circuits. The driver shall have standard built-in surge protection of 2.5kV (min).	Request to make it internal surge protection in driver as 10kv	Why 10 kV is required is not clear? To meet thde requirement of ckause 2.2 (i) the bidder may use internal surge protection of 10 kV.
55	Clause 2.2 (i)	Tech. Spec. Part 2, Page 12	An integrated 10kV/10kA surge protector shall be provided to protect luminaire against common (line-to-ground) and differential (line-to-line) mode surges.	Request to clarify whether it is inbuilt in the luminaire.	It can be inbuilt or separate as per bidders practice.
56	Part-II, Clause-2.2(o)	Tech. Spec. Part 2, Page 12	A bird guard against birds and similar intruders shall be provided.	Clause is not relevant, pls clarify the what is intention of this clause. It is not a standard practice in any sports lighting luminaire.	The clause is deleted. The Enclosureincluding the lens shall withstand the impact of bird hit.
57	Clause 2.3	Tech. Spec. Part 2, Page 12	LEDs: The following detail shall be furnished in the tender. a) Make, country of manufacture & model of the luminaire. b) Lumens output of lamp c) Supply Voltage d) Lamp Voltage e) Colour Temperature (Tk) f) Colour rendering index (Ra) g) Weight of flood light fitting h) Weight of complete luminaire. i) Details of driver unit. j) Weight of Driver unit. k) Detailed catalogue of Luminaire.	We believe this clause is valid for LEDs and luminaire also. Also the parameter asked "Lumen output of lamp, lamp voltage" is irreleveant here. Kindly confirm on this. Driver should CE certified and complete luminaire & driver BIS report should be submitted along with the Bid.	The bidder may exclude what he considers as irrelevant. The clause is valid for LEDs and luminaire. The bidder shall submit complete test certificates for Luminaires and drivers to evaluate the offered LEDs/Luminares.

58	Clause 3.1	Part 2 Page 13	DISTRIBUTED CONTROL SYSTEM:	Pls define court and court-1 for this application. As PLC is an old technology and current sports lighting lower lighting level is achieved by DMX technology. Request JSCA to adopt latet technologies for achiving lighting level on lower switching steps.	"Lighting Events at Court and court-1" stands deleted.
59	Section-2, Clause-9	Tender Doc. Part1, Page 4	The bidder may preferably have a branch office in Ranchi, Jharkhand	As per the scope of the job instead of having a branch office it should have service network in Eastern India and preferably in Ranchi.	The bidder shall maintain an office or network to attend to the AMC requirement promptly.
60	Section-3, Clause-1.1e	Tender Doc. Part1, Page 5	Control and Protection panels, wiring/cabling, etc. as per all relevant ICC standards, Indians Standards and specifications. This shall include PLC based systems to automatically control the illumination levels of the playground.		Accepted. The relevant standards shall apply.
61	Section-V, Clause 6.3		Liquidated damages for shortfall in Illumination (lux) level	Lux level depreciation is a function of luminaire, pls furnish the expected maximum burning hrs/year so that confirmation of this clause can be given by the bidder.	The LD clause is applicable to shortfall in Lux level over the values specified at the time of Guarantee tests. However, the bidder shall consider 300 burning Hours per year and indicate Lux depreciation per year.
62	Section-2, Clause-5	Highmast Light Tender Document Part1, Page 4	years out of which at least one High Mast	Request to consider at least one stadium Illumination System shall be based on High Power, High Efficiency, LED based luminaires for National Stadiums hosting Cricket Tournaments which must be operational for a period of atleast 1 (one) year as on 31-12-2020.	The requirment has been revised after due consideration.
63	NIL	NIL	Request for inclusion of additional clause on "limitation of Total Liability under the clause".		A new clause has been added. Please refer page 1 of our response.