



MATERIAL APPROVAL REQUEST FORM

	GENERAL IN	FORMATION				
Issuer: Mr. Carlos Gonzalez Gabaro	da, FCC-EM – Line 5 & 6 – MEP			-14		
Issue Date: 19-Nov-2017		Submittal N°: M3-FC	9 REV N°	REV N°: AB		
Require	ement N°:					
Air Ioniza						
	LOCATION WHERE MA	ATERIAL WILL BE US	SED	Market Vig 1959		
Line 4	LINE 5 🗆	LINE 6		All LINES ⊠		
Exact location: All Locations	· K					
Structure. Mechanical	-6.					
Chainage:						
	SUPPLIER / MA	ANUFACTURER				
Name: Petra.				ACRES ASSOCIATIONS	KREMMORES	
Approval request reference:		Approved \square	To be approved ⊠	Not Appli	Not Applicable	
Comments:						
	MATE	ERIAL				
Material description: Ionization Ur	nits		Control and the Control of Contro		STATE STATES	
Origin:	in: Saudi Arabia ☐ Foreigner				ULLE	
Sample Provided :	YES 🗆					
	Documents Provided	l de la companya de		YES	NO	
Material Specifications (Physical, M	lechanical, Electrical, Chemical, etc)(Employer Requirement	s)			
Material Certification (International Standards, Test Methods, Target & Tolerances)						
Complete & Comprehensive Compliance/Comparison Matrix						
Quality Control and Acceptance Sampling						
Safety considerations and requirem		⋈				
Environmental considerations and requirements						
Typical Details Drawings						
Catalog and/or Technical Data Shee						
Photographs and/ or Technical Illustration						
Other (Specify): Project Schedule.						
					- 10	
	FAST SUB	MISSION				
Representative: Mr. CARLOS GONZALEZ, FCC-EM PROJECT DIRECTOR, Date: 19-Nov-201						
ME INCHAE SONG,	SAMSUNG C&T, PROJECT MANAGER					
Signature:	1/11/17 M/m	la 11.				
	1/21	(NOV/20/7				
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Riyadh Metro Project Package 3 COMMENTS RESOLUTION SHEET



OVERALL REVIEW CODE A - Reviewed - Work m		ay proceed.			OVERALL STATUS				
Document Ref. No. M3-FST-WTRAN-070688 (WF-125727) M3-FST-WTRAN-066833 (WF-117894) Document Title Submission of Material Approval Request - Ionization Units, Supplier / Manufacture: Petra / Petra Rev. AB (FCI-MAR-EME00-GEN-000059) Date Received O4-Dec-17 Originator CIV - FAST		M3-FST-WTRAN-066833 (WF-117894) Submission of Material Approval Request - Ionization Units, Supplier / Manufacture: Petra / Petra Rev. AB (M3-FCI-MAR-EME00-GEN-000059)		ued on	10-Dec-17	Date CRS Responded by Co.			
				oe .	Material Approval Request				
					Zafar Ali				
		CJV - FAST	CRS Rev.		R1 CRS Ref.: M3-FCI-CRS-EME00-GEN-000081				
100	200.000			F					
No.	Section/ Page/ Drawing No.	PM/CM Comments	Doc. Rev.	Ву	Contractor Response		Ву	Review Code	Status
_		Mechanical Comments							DESCRIPTION POT
1	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: 1. Catalog provided is for Plasma and very old reports of Bentax. Petra submittal Schedule shows no relation to these manufacturers Bentax models. Provide reference to the actual manufacturer's model 2. Provide certified documentation from an independent international testing agency which shows the ER values as a minimum 3. Provide latest reports 4. Provide surface flammability Test report as per UL-94-5VA and BS 476, part 6, for all materials with in the air stream. 5. Provide proof of delivering Ozone less than 0.05 ppm. Second cycle comment: Noted.		SMZ	First cycle response: 1- Attached are more recent reports. And please understand that Plasma Air changed its name from Bentax in 2007 for marketing reasons (Appendices A to E) 2- See attached Appendix (F) LAWN_Environmental_Test_Report 3- See above (Appendices A to E) 4- See attached UL test certificates indicating that all models were tested and had satisfactory results for UL 2043 – Test for Heat and Visible Smoke Release. UL 94 is a flammability test only for individual components. UL 2043 is a flammability test for the entire piece of equipment, It is a superior test protocol. (Appendix A) 5- Find attached 2 ozone tests illustrating essentially no ozone is measured in the occupied space. (Appendix C) Second cycle response:			А	
		QA Comments							
2	M3-FCI-MAR-EME00-GEN-000059	First cycle comment : Clarify the name of Manufacturer and Supplier for Ionization unit. Second cycle comment : Noted.		ss	First cycle response : Manufacture is Plasma Air / Supplier is khalid Asad Jamjom Second cycle response :			A	
3	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: Certification of Conformity is not provided for Electro-Magnetic-Compatibility Standards (EMC-Test). Second cycle comment: Noted.		SS	First cycle response: Radiated noise will be contained by metal enclosure and metal ducts. AC has a noise suppressing capacitor. More importantly, any and all tests required for EMC in the product certifications under UL 867, UL 1995 and UL 2043 have been satisfactorily completed. In other words, if UL determined that the tests were required, we were tested for them (Appendix A) Second cycle response:			А	
4	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: Certification of Conformity is not provided for safety standard for IP 66 for The housing of the high voltage transformers including switches, supply power connectors. Second cycle comment: Noted.		ss	First cycle response: IP 66 is for a "dust tight" enclosure - under a vacuum for 8 hours and water from powerful jets from any direction. UL 867 6.15 requires equivalent testing related to resisting abuses likely to be subjected; however, specifically for this project, the enclosure of the 50 series ionizers will be gasketed and seeled creating a rating equivalent to IP66. (Appendix A) Second cycle response:			Α.	
5	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: Latest test reports of certificates shall be submitted for approval of air ionization modules to deliver ozone, from Independent laboratory. Second cycle comment: Noted.		SS	First cycle response : See attached ozone tests (Appendix C) Second cycle response :			A	
6	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: Site tests shall be carried out to verify the ozone level in the occupied zones. Second cycle comment: Noted.		SS	First cycle response : Manufacturer will support Contractor in field testing Second cycle response :			А	
		Electrical Comments							
7	M3-FCI-MAR-EME00-GEN-000059	First cycle comment: No Electrical Comments. Second cycle comment:	AA	MHF					
		RAMPED - PMCM			D&B CONTRAC	TOR			
Lead Reviewer No Objection By Name: Zafar Ali		Nessee		Approved By					
-100	tion: Material's Engineer	Name: Henche Ignacio Designation: stations manager	Name: Designation:			Name: Designation:			
sign:		Sign:		Sign;					
ite: 1	te: 10 December 2017 Date: 10 December 2017		Date:			Date:			
claim		titute acceptance or approval of design details, calculations, analyses, test methods or materials developed or selec	cted by the Contra	ector and shall	not relieve the Contractor from full compliance with Contractor	al		Status	
ligatio	ons.								

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