

FIELD QUALITY PLAN

FOR

**Civil and allied work for Construction of UHV LAB at BHEL
Jhansi.**



FACTORY CIVIL DEPARTMENT

BHARAT HEAVY ELECTRICALS LIMITED

JHANSI

FIELD QUALITY PLAN


FOR


Civil and allied work for Construction of UHV LAB at BHEL Jhansi.

DOCUMENT NO.	FQP/FCX/UHV/CIVIL	
ORIGINAL DATE OF ISSUE	03.09.2024	
REVISION NO. & DATE	Nil	
DATE OF ISSUE	03.09.2024	
PREPARED BY	Sanjay Maurya	
	ENGINEER (FCX)	
CHECKED BY	Dushyant Tiwari	
	Sr. Engineer (FCX)	
REVIEWED BY	Abhishek Gupta	
	Manager (FCX)	

NOTE :

- 1 Contractors will be responsible for getting the work inspected by inspecting authority after carrying out inspection by themselves as per Field Quality Plan.
- 2 Abbreviations used in the column "Type of Check" are
 - R : Record Verification
 - M : Measurement
 - V : Visual
 - T : Test
- 3 Abbreviations used in the column "Format of Record" are
 - SR: Site Register
 - TR: Test Report

 JHANSI		STATEMENT OF CHECKS			Document Number	FQP/FCX/UHV/CIVIL
					Revision Number	Nil
					Issue Date	03.09.2024
S No.	CHARACTERISTICS / ITEM	TYPE OF CHECK	QUANTUM/ FREQUENCY OF CHECK	REFERENCE DOCUMENT/ ACCEPTANCE STANDARD	FORMAT OF RECORD	REMARKS
1.0	CAST-IN-SITU CONCRETE					
1.1	COARSE AGGREGATE (40 mm)					
1.1.1	Moisture Content	T	Once per source/on every change of source	As per IS:2386 Part III IS:456, IS:383	Test Report	
1.1.2	Specific Gravity, Bulk Density, Voids, Water absorption	T	Once per source/on every change of source	As per IS:2386 Part III IS:456, IS:383	Test Report	
1.1.3	Particle Size & shape-(Sieve analysis, determination of material finer than	T	Once per source/on every change of source	As per IS:2386 Part I IS:456, IS:383	Test Report	
1.1.4	Crushing Value	T	Once per source/on every change of source	As per IS:2386 Part II,IV,VI,IS:383	Test Report	
1.2	FINE AGGREGATE (20mm)					
1.2.1	Bulkage & Moisture Content	T	Once per source/on every change of source	As per IS:2386 Part III ,IS:383	Test Report	
1.2.2	Silt, Clay content, soundness.	T	Once per source/on every change of source	As per IS:2386 Part-II, V, VI,VII IS:383	Test Report	
1.2.3	Sieve analysis, particle size & shape	T	Once per source/on every change of source	As per IS:2386 IS:383/	Test Report	
1.2.4	Specific Gravity, Water absorption, bulk density & voids	T	Once per source/on every change of source	As per IS:2386 Part-III, IS:383	Test Report	
1.3	SAND					
1.3.1	Fineness Modulus(Sieve analysis)	T	Once per source/on every change of source	As per IS:2386 IS:383/	Test Report	
1.3.2	Silt Content	T	Once per source/on every change of source	As per IS:2386 IS:383/	Test Report	
1.3.3	Bulkage/Moisture Content	T	Once per source/on every change of source	As per IS:2386 Part III ,IS:383	Test Report	
1.4	CONCRETE					
1.4.1	Crushing strength (Works tests cubes)	T	Once per 50 cum or part thereof	IS:516 & IS:456, IS:10262	Test Report/ Departmental Testing	
1.4.2	Laying and Mixing of concrete	V	Random	As per site requirement	SR	
1.4.3	Curing	V	Random	As per site requirement	SR	
2.0	BRICKS					
2.1	Water absorption	T	For each lot of 50,000 or part thereof	IS 1077 , IS 3495 & IS 5454	Test Report	
2.2	Compressive Strength	T	For each lot of 50,000 or part thereof	IS 1077 , IS 3495 & IS 5454	Test Report	
3.0	Plaster					
3.1	Correctness	V	Random	As per site requirement	SR	
4.0	Putty					
4.1	Brand	V	Random	As per remark	SR	Make of putty shall be Birla Wall Care Cement Putty/JK Wall Putty/Asian Wall Putty/Burger Wall Putty/Nerolac Wall Putty
5.0	Oil Bound Washable Distemper/Acrylic Emulsion (Interior/Exterior)					
5.1	Brand	V	Random	As per remark	SR	Make of distemper shall be Asian/Burger/Nerolac
6.0	Synthetic Enamel Paint					
6.1	Brand	V	Random	As per remark	SR	Make of distemper shall be Asian/Burger/Nerolac
7.0	G.S. Sheet (Plain and Perforate Sheet)					
7.1	Total coated metel thickness	T	Per Lot	As per item specification	TC/MTC	0.63 mm Total coated thickness
7.2	Zinc Coating	T	Per Lot	As per item specification	TC/MTC	Minimum 120 gsm/sqm total of both side
7.3	Pitch	T	Per Lot	As per technical	TC/MTC	Maximum 205 mm C/C
7.4	Crest	T	Per Lot	As per technical	TC/MTC	Minimum 28 mm
7.5	Make of Sheet	V	Per Lot	As per item specification	SR	JSW/Essar/Tata/SAIL/Equivalent
7.6	Perforation (If required)	V	Per Lot	As per item specification	SR	Hole size of 1.8 - 2 mm at 20 mm c/c along the entire sheet.
8.0	G.S. Sheet for flashing, ridges, capping, corner piece etc.					
8.1	Total coated metel thickness	T	Per Lot	As per item specification	TC/MTC	0.63 mm Total coated thickness

 JHANSI		STATEMENT OF CHECKS			Document Number	FQP/FCX/UHV/CIVIL
					Revision Number	Nil
					Issue Date	03.09.2024
S No.	CHARACTERISTICS / ITEM	TYPE OF CHECK	QUANTUM/ FREQUENCY OF CHECK	REFERENCE DOCUMENT/ ACCEPTANCE STANDARD	FORMAT OF RECORD	REMARKS
8.2	Zinc Coating	T	Per Lot	As per item specification	TC/MTC	Minimum 120 gsm/sqm total of both side
8.3	Make of Sheet	V	Per Lot	As per item specification	SR	JSW/Essar/Tata/SAIL/Equivalent.
9.0	Polycarbonate Sheet					
9.1	Thickness	T	Per Lot	As per item specification	TC/MTC	Minimum 3 mm
9.2	UV Resistance	T	Per Lot	As per item specification	TC/MTC	Should be UV resistant
10.0	M S Gutter					
10.1	Thickness	T	Per Lot	As per item specification	TC/MTC	Minimum 3 mm
11.0	Fabrication Work					
11.1	Visual checks/Dye penetration test as per criticality of the joint	V/T	Random	As per item specification	SR	
12.0	Paint					
12.1	Make of Paint	V	Per Lot	As per item specification	SR	Asian, Berger, Nerolac
12.2	Coat of Paint	V	Random	As per item specification	SR	Double coat for new work
13.0	Primer					
13.1	Make of Paint	V	Per Lot	As per item specification	SR	Asian, Berger, Nerolac
13.2	Primer Coat	V	Random	As per item specification	SR	Single coat before erection for new work
14.0	Glass Fibre Wool					
14.1	Density	T	Per Lot	As per item specification	TC/MTC	Minimum 24 Kg/m3
14.2	Thickness	T	Per Lot	As per item specification	SR	Minimum 100 mm
15.0	Geotextile					
15.1	Unit Weight	T	Per Lot	As per item specification	TC/MTC	Minimum 120 GSM
15.2	Thickness	T	Random	As per item specification	SR	Thickness 1 - 1.25 mm
16.0	EPOXY FLOORING					
16.1	SCREED					
16.1.1	Compressive Strength	T	Per Lot	As per ASTM C-579/EN13892	MTC/TR	Minimum 50 N/Sqmm at 7 days
16.1.2	Flexural Strength	T	Per Lot	BS-6319 Part 3	MTC/TR	Minimum 25 N/Sqmm at 7 days
16.2	SELF LEVELLING TOP COAT					
16.2.1	Compressive Strength	T	Per Lot	As per ASTM C-579/EN13892	MTC/TR	Minimum 50 N/Sqmm at 7 days
16.2.2	Flexural Strength	T	Per Lot	BS-6319 Part 3	MTC/TR	Minimum 20 N/Sqmm at 7 days
17.0	THICKNESS					
17.1	Thickness Measurement	M	Every 250 Sqm	As per technical specification	SR	Minimum thickness 5mm
18.0	VISUAL EXAMINATION					
18.1	Colour	V	100%	As per requirement	SR	
18.2	Straightness of Line/Markings	V	100%	As per requirement	SR	

Note:

1. The tests/procedure mentioned above are only indicative and any other test required to maintain/improve/access the quality of work shall also form part of Field Quality Plan.
2. Testing over any item/material used in any item shall only be carried out if the executed value for the said item is more than Rs. 50,000.00