

# **FIELD QUALITY PLAN**

**FOR**

**FQP-Foundation & other allied civil works for Vapour Phase  
Drying (VPD) Plant in Block-3 & Bed plate in Block-2 inside factory  
area. .**



**FACTORY CIVIL DEPARTMENT**

**BHARAT HEAVY ELECTRICALS LIMITED**


**BHOPAL**

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<b>DOCUMENT NO.</b>	FQP/FCX/18191035	
<b>ORIGINAL DATE OF ISSUE</b>	28.03.2019	
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<b>DATE OF ISSUE</b>	28.03.2019	
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 <b>BHOPAL</b> <b>FACTORY CIVIL DEPARTMENT</b>		<b>AUTHORISATION FOR DIFFERENT CATEGORIES OF CHECKS</b>	
Classification of Check		Inspection Authority	Clearing Authority
Symbol	Description	BHEL	BHEL
A	Critical	Sr. Engr ( FCX-PLG)	Dy. Manager ( FCX-PLG)
B	Major	Sr. Engr ( FCX-PLG)	Dy. Manager ( FCX-PLG)
C	Minor	Sr. Engr ( FCX-PLG)	Dy. Manager ( FCX-PLG)

**NOTE :**

- 1 Quantum of check shall be 100% for all characteristics unless otherwise mentioned in reference documents. Contractors will be responsible for getting the work inspected by inspecting authority after carrying out inspection by themselves as per Field Quality Plan.
- 2 In case of non-conformity, before accepting, clearing agency shall ensure disposition and the same shall be reflected in the log-sheet /protocol.
- 3 For checks where log sheets are not called for, suitable records shall be maintained in the form of log book / protocols.
- 4 Abbreviations used in the column "Type of Check" are
  - R : Record Verification
  - M : Measurement
  - W : Witness
  - T : Test
- 5 Abbreviations used in the column "Format of Record" are
  - SR: Site Register
  - TR : Test Report
- 6 In case of non-availability of inspecting/clearing authority of prescribed level the job shall be performed by higher authorities or the persons authorized by sectional head



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S No.	CHARACTERISTICS / ITEM	TYPE OF CHECK	INSTRUMENT	CLASS	QUANTUM/ FREQUENCY OF CHECK	REFERENCE DOCUMENT/ ACCEPTANCE STANDARD	FORMAT OF RECORD	REMARKS
<b>1.0</b>	<b>GENERAL REQUIREMENTS</b>							
1.1	Setting up of Field QA & QC laboratory	V	As agreed/required	A	Once prior to start of work	Tech Spec	SR	Contractor may also opt to get the material tested in outside reputed laboratory. In such a case, contractor has to establish a field laboratory with only instruments required for in-situ testing.
1.2	Availability of requisite laboratory setup & equipment in good working condition well before commencement of concerned activity .	V	As agreed/required	A	Once prior to start of work	Tech Spec	SR	
<b>2.0</b>	<b>EXCAVATIONS &amp; FILLING IN FOUNDATION WORKS</b>							
<b>2.1</b>	<b>EXCAVATION</b>							
2.1.1	Check for the initial ground level before start of excavations.	M	As agreed/required	B	100%	Tech Spec & Const Drawing	SR	
2.1.2	Check for the final shape and Dimensions of Excavation including final excavation level & required clearances	M	As agreed/required	B	100%	Tech Spec & Const Drawing	SR	
<b>3.0</b>	<b>CAST-IN-SITU CONCRETE</b>							
	<b>MATERIALS</b>							
<b>3.1</b>	<b>CEMENT</b>							
	Ensure that cement is stored in weather tight covered storage on raised platform.	V	As per IS:4082	B	100% Covered storage	IS:4082	SR/LB	



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<b>3.2</b>	<b>COARSE AGGREGATE</b>							
3.2.1	Moisture Content	T	As per IS:2386 Part III	B	Once for Each stack of 100 Cum or part there of.	As per IS:2386 Part III IS:456, IS:383	Test Report	
3.2.2	Specific Gravity, Bulk Density, Voids, Water absorption	T	As per IS:2386 Part III	B	Once for Each source & for every change of source	As per IS:2386 Part III IS:456, IS:383	Test Report	
3.2.3	Particle Size & shape-(Sieve analysis, determination of material finer than 75	T	As per IS:2386 Part I	B	One per 100 cum or part thereof/change of source	As per IS:2386 Part I IS:456, IS:383	Form -5 & Test Report	
3.2.4	Crushing Value, abrasion value impact value, soundness.	T	As per IS:2386 Part II,IV,VI,VII	B	Once per source/on every change of source	As per IS:2386 Part II,IV,VI,IS:383	SR/LB/ Test Report	
<b>3.3</b>	<b>FINE AGGREGATE (10mm)</b>							
3.3.1	Bulkage & Moisture Content	T	As per IS:2386 Part III	B	Once for Each stack of 100 Cum or part there of.	As per IS:2386 Part III ,IS:383	Form-3&4	
3.3.2	Silt, Clay content, soundness.	T	As per IS:2386 Part II,V,VI & VIII	B	Once per source & for on every change of source	As per IS:2386 Part-II, V, VI,VII IS:383	Test Report	
3.3.3	Sieve analysis, particle size & shape	T	As per IS:2386 Part I	B	Once per 100 cum or every change of source	As per IS:2386 IS:383/	Form-2	
3.3.4	Specific Gravity, Water absorption, bulk density & voids	T	As per IS:2386 Part III	B	Once per source & for on every change of source	As per IS:2386 Part-III, IS:383	Test Report	
<b>3.4</b>	<b>SAND</b>							



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3.4.1	Fineness Modulus(Sieve analysis)	T	As per IS:2386 Part I	B	Once per 100 cum or every change of source	As per IS:2386 IS:383/	Form-2	
3.4.2	Silt Content	T	As per IS:2386	B	Once per source & for on every change of source	As per IS:2386 IS:383/	Test Report	
3.4.3	Bulkage/Moisture Content	T	As per IS:2386 Part III	B	Once per 100 cum or every change of source	As per IS:2386 Part III ,IS:383	Form-3 &4	
<b>3.5</b>	<b>CONCRETE</b>							
3.5.1	Crushing strength (Works tests cubes)	W&T	Cube Crushing Machine	A	As per IS :456	IS:516 & IS:456, IS:10262	Form-6	
3.5.2	Workability-Slump Test	W&T	Slump Cone	B	In every load for RMC and every 10 cum for BMC.	IS:456 & IS:1199	Form-7	