

**Government of India**

**Ministry of Railways**

**Schedule of Technical Requirement (STR)**

**For**

**Primary Cell - SITEL**

**Signal Directorate**

**Research Designs & Standards Organisation**

**Manak Nagar, Lucknow - 226011**

**September 2004**

**Scope:**

The Schedule of Technical Requirement No. SIQ 0111 covers the norms for machinery & plants required for production, testing equipment for quality assurance and infrastructure for manufacturing of Primary cell - SITEL for Railway Signaling applications. Vendor shall also comply other relevant laws of the country and quality norms issued by RDSO time to time.

**Primary cell - SITEL**

List of specifications for various types of Primary Cell - SITEL

<b>S.No</b>	<b>Description</b>	<b>Specification No.</b>
1	Primary Cell - SITEL	IRS:S 95/96

### Primary cell - SITEL

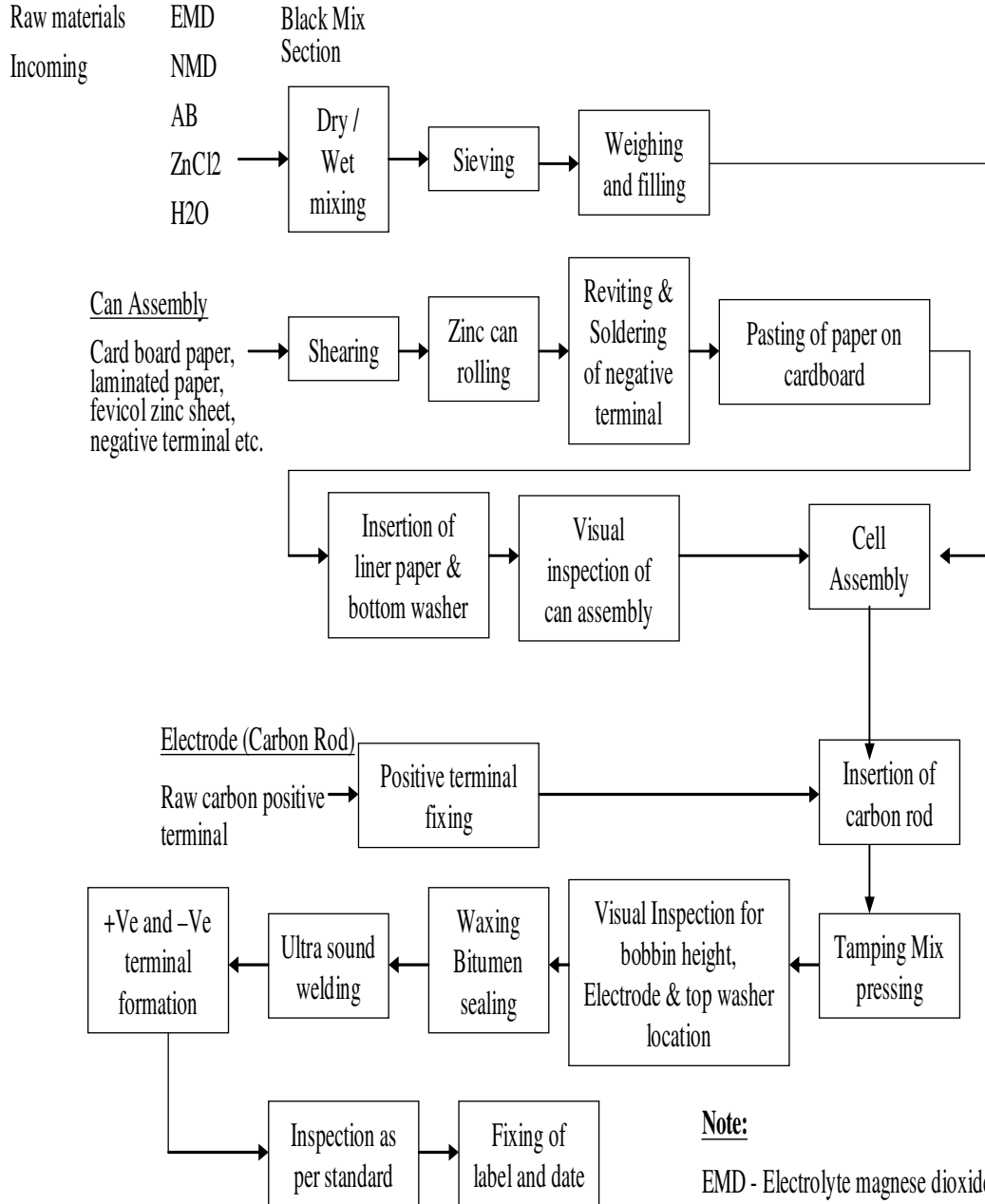
S.No	Description
<b>I Essential machinery and plants required for production</b>	
1	Mixer
2	Weighing Machine up to 100 Kg
3	Shearing machine
4	Sheet rolling machine
5	Drill machine
6	Arbor press
7	<i>Screw press pillar</i>
8	Pan balance
9	Nylon fixtures
10	Fabricated steel tank for sealing
11	Ultrasonic welding machine
<b>II Essential testing equipment required for quality assurance</b>	
1	Test bench mounted with Ammeter and Voltmeter etc as per requirement
2	Digital multimeter
3	Variable resistance load
4	Digital vernier calliper
5	Digital micro meter
6	Weights
7	Dry and Wet bulb thermometer
8	Digital contact thermometer
9	Hour meter
<b>III Minimum infrastructure required for manufacturing and testing</b>	
1.	Air-conditioned laboratory area 300 Sq.ft
2.	Godown area for keeping the finished products 1000 Sq.ft
3.	Office area 400 Sq. ft
4.	Manufacturing floor area 2000 Sq.ft
5.	Stores for keeping raw material 400 Sq. ft

**Note:** i) This STR shall be applicable to all new vendors applying for registration for Primary cell-SITEL  
ii) All existing approved manufacturers shall be advised for implementation of new STR.  
A reasonable period for compliance shall be given.

IV. Typical Quality Assurance Flow Chart is at Page No. 4 of the document

V. **Copy Holders:** ED/QA-III  
JD/DSIG-I  
JD/DSIG-VII  
ADE/SIG-I

## QAP Flow Chart for SITEL Primary Cell



**Note:**

EMD - Electrolyte magnese dioxide  
 NMD - Natural magnese dioxide  
 AB - Acetylene black