REASONED DOCUMENT IN RESPONSE TO UPLOADED DRAFT ITEM SPECIFIC GUIDELINES AND SCHEDULE OF TECHNICAL REQUIREMENTS FOR VENDOR APPROVAL FOR MANUFACTURE AND SUPPLY OF ELASTIC RAIL CLIS, DOCUMENT NO. TDG 0044

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<tr><td>3.0</td><td>Scope of Application:
This shall be applicable for initial capability assessment, periodic Quality audit for extension of approval, up-gradation of vendors and maintaining their approved list. In case of any variation between the procedure/provision given in work instruction and that in the 'Item- specific guidelines', the later shall prevail. The competent authority wherever referred to in this document shall mean PED/INFRA-I</td><td>Scope of Application:
This shall be applicable for initial capability assessment, periodic Quality audit for extension of approval, up-gradation of vendors and maintaining their approved list. In case of any variation between the procedure/provision given in work instruction and that in the 'Item-specific guidelines', the later shall prevail. The competent authority wherever referred to in this document shall mean PED/INFRA-I.
It is responsibility of the vendor to approach the RDSO for quality audit of their manufacturing unit before the due date of the quality audit.</td><td>i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.
ii) M/s Surya Coach Builders Pvt. Ltd.
iii) M/s Surya Coach Builders Pvt. Ltd. Unit II
iv) M/s Siddhartha Metal Fabricators, Faridabad
v) M/s Modern Manufactures, Panchkula
vi) M/s Vaishno Mata Track, Faridabad
vii) M/s Fateh Chand Jain, Faridabad
viii) M/s MMD Rail Tracks, Panchkula
ix) M/s Bridge Track & Towers Pvt. Ltd.
Although we take responsibility to approach the RDSO for</td><td>Comments of the firms have been examined.

Firm shall inform the RDSO for conducting the quality audit as per provisions of ISO document.</td></tr>
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Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Quality Audit before the due date but at the same time RDSO also must send us the reminder in at least two months in advance for quality Audit of our Unit **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **x) M/s Adinath Industries INC** **xi) M/s R. Rashmi Industries** **xii) M/s Swatee Steels** **xiii) M/s Digvijay Steels** **xiv) M/s Ved Kiran Steels** **xv) M/s Kamakshi Track Fasteners** **xvi) M/s Vaishno Mata Track** **xvii) M/s Maa Kali Projects Pvt. Ltd.** **xviii) M/s Qualite Steels** **xix) M/s M K Corporation, Raigarh** Although we take responsibility to approach the RDSO for Quality Audit before the due date. RDSO also must send us the due date reminder 30 days in advance for quality Audit of our Unit through registered email.	
B.	**SCHEDULE OF TECHNICAL REQUIREMENTS FOR APPROVAL OF FIRMS TO MANUFACTURE ELASTIC RAIL CLIPS Mk-III, ERC-J, MK-V & ANTI-THEFT ERC (WITH CIRCLIP)**			
2.1	**MANUFACTURING FACILITIES:**			
2.1.1	**Space:** Sufficient covered area with proper ventilationshould be available for manufacturing and	**Space:** Sufficient covered area with proper ventilationand facility to run EOT (Electric	**i) M/s Jekay International Track Pvt. Ltd.**	The suggestion of the firm has been

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	testing facilities. Space for storage of raw material, cut bars, heating furnace, power press for forming clips, quenching tank, tempering furnace and for storage of finished products should be earmarked clearly.	Overhead Traveling crane)should be available for manufacturing and testing facilities. Space for storage of raw material, cut bars, heating furnace, power press for forming clips, quenching tank, tempering furnace and for storage of finished products should be earmarked clearly. The shed floor area should be completely concreted with VDF.	A minimum of 2500 m^2 should be available for raw material, production, storage and dispatch of clips. **ii)M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd.** **iv) M/s Surya Coach Builders Pvt. Ltd. Unit II** **v) M/s Siddhartha Metal Fabricators, Faridabad** **vi) M/s Modern Manufactures, Panchkula** **vii) M/s Vaishno Mata Track, Faridabad** **viii) M/s Fateh Chand Jain, Faridabad** **ix) M/s MMD Rail Tracks, Panchkula** **x) M/s Bridge Tracks & Towers Pvt. Ltd.** EOT (Electric Over Head Crane) is not required in our system for handling of raw material or Finish goods and its use in our product is beyond our understanding. To install the EOT crane the Infrastructure of the Shed of Unit needs to be replaced. Floor of the Unit are concreted with trimix **xi) M/s Kalimata Vyapar Pvt. Ltd., Kolkata** **xii) M/s Nandi Enterprises, Kolkata** **xiii) M/s Kalimata Ispat Industries Pvt. Ltd.**	examined. The minimum area cannot be fixed in the STR. The firm will have to indicate the sufficient area for manufacturing, testing, storage of raw material and storage of finished product. Requirement of EOT and VDF floor was discussed in the meeting held on 24.01.2025 with ERC vendors and it was stated that the EOT is not required for handling the raw material. The VDF floor shall be made optional and replaced with other option of concrete flooring. Accordingly, Para has been modified.

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			Minimum Covered Area- 15000 sq. ft. along with overhead crane for stacking of Raw Material heat wise shed area should be RCC concrete flooring. **xiv) M/s Pathik Engineering Works ,Chattisgarh** Existing sheds to manufacture ERCs are not having the facility to install EOT cranes also not designed for provision of such facility. Presently this is not possible to install EOT cranes in our existing sheds at this stage. However, option to have the facility of mobile crane and fork lift should be there and it will serve the purpose. Use of regular quenching oil is there so shed floor with VDF may create some problem and concreted shed area can be provided. **xv) M/s Prakash Metallic Pvt. Ltd., Raipur** EOT (electric over Head Crane) is not required in our system for handling of raw material or Finish goods and its use in our product is beyond our understanding. Further, Infrastructure ofthe Shed of the Unitneeds to be changed toinstall EOT Crane. Floor of the Unit areconcreted with trimixwhich is sufficient loadbearing for our product.The use of VDF is againunjustified. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as**	

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			follows: **xvi) M/s Adinath Industries INC** **xvii) M/s R. Rashmi Industries** **xviii) M/s Swatee Steels** **xix) M/s Digvijay Steels** **xx) M/s Ved Kiran Steels** **xxi) M/s Kamakshi Track Fasteners** **xxii) M/s Vaishno Mata Track** **xxiii) M/s Maa Kali Projects Pvt. Ltd.** **xxiv) M/s Qualite Steels** **xxv) M/s M K Corporation, Raigarh** EOT (Electric Over Head Crane) is not required in our system for handling of raw material or Finish goods and its use in our product is beyond our understanding. To install the EOT crane the Infrastructure of the Shed of Unit needs to be replaced. Thus as discussed in the meeting EOT is not Mandatory and will remain optional. Trimix Concrete Floor is equivalent to concreted with VDF floor.	
2.1.2	**Raw Material:** The as rolled bars to be used for manufacture of ERC shall be stored heat wise separately so that they do not get mixed up	**Raw Material:** The as rolled bars to be used for manufacture of ERC shall be stored heat wise separately so that they do not get mixed up	**i) M/s Kalimata Vyapar Pvt. Ltd., Kolkata** **ii) M/s Nandi Enterprised, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd. ,**	The aspect of different/ several heats in a small quantity, should be handled by the ERC manufacturer and raw material manufacturer.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Kolkata Raw Material- How much area should be earmarked for heat wise stacking of Raw Material as RINL, Bhusan, JSPL & other raw material manufacturers are sending l0 heats in truck of 2MlT to 3 IWT of individual heat size.	ERC manufacturer should contact raw material supplier with pre-agreed conditions of supply. This issue wasdiscussed in the vendor's meeting.
2.1.3	**Power Press:** Power press with sufficient capacityto cut the as rolled bars should be available. Two or three supports depending upon length of the rolled bars should be available near the cutting press, to hold bars such that their end squareness is maintained within 1 mm	**Power Press:** Power press with sufficient capacity/ Power press feeded with mechanized roller conveyorto cut the as rolled bars should be available. Two or three supports depending upon length of the rolled bars should be available near the cutting press, to hold bars such that their end squareness is maintained within 1 mm	**i) M/s Jekay International Track Pvt. Ltd.** The feeding system into the press should be automatic with sufficient capacity **ii)M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd.** **iv) M/s Surya Coach Builders Pvt. Ltd. Unit II** **v) M/s Siddhartha Metal Fabricators, Faridabad** **vi) M/s Modern Manufactures, Panchkula** **vii) M/s Vaishno Mata Track, Faridabad** **viii) M/s Fateh Chand Jain, Faridabad** **ix) M/s MMD Rail Tracks, Panchkula** **x) M/s Bridge Tracks & Tower Pvt. Ltd.** Roller system is already available on which bar is pushed by the workers. which maintain the length,and end squareness of each bar **xi) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xii) M/s Nandi Enterprices,**	It is understood that in the existing infrastructure Roller system is available with the firms in which bar is pushed by the workers. However recently, manual errors, end squareness and variation in the length of cut bars have been observed during production which lead to dimensional inaccuracies in the clip. This para was discussed in meeting held on 24.01.2025 with ERC vendorsand it was stated that the Power press fed with mechanized roller conveyor to cut the as rolled bars shall be made optional. As the mechanization of cutting the bars shall not directly enhance the quality of end product, the comment of the firm has been accepted and para has been modified.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Kolkata **xiii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Power Press- Automatic Bar Machine with sufficient capacity Power Press should be available with conveyorized chain system to ensure no manual interference is involved which can ensure exact sharing length of Round to be used for manufacturing of ERC MK-V. End Squareness- Sufficient Bench Grinder should be available near to Bar Sharing Power Press to sharp edges/bars from cut Bars. **xiv) M/s Pathik Engineering Works, Chattisgarh** Power Press machine feeded with mechanized roller conveyor system to cut the rolled bars will not be beneficial and there is no any technical improvements also in the product. Manpower will also be required in mechanized conveyor system for loading of material. It should be developed by the manufacturers keeping in view all the technical aspects and accuracy as such this type of machine is notavailable in market. Manual feeding is better and there is no any problem in manual feeding therefore option for manual feeding should be available in the specification. **xv) M/s Prakash Metallic Pvt. Ltd. Raipur** Roller system is already available on which bar is pushed by the workers. which maintain the	

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			length,and end squareness of each bar. Mechanized feederreduces the endsquareness, increasesrejections due to shortlength cut by the feeder,thereby reducingproduction capacity. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xvi) M/s Adinath Industries INC** **xvii) M/s R. Rashmi Industries** **xviii) M/s Swatee Steels** **xix) M/s Digvijay Steels** **xx) M/s Ved Kiran Steels** **xxi) M/s Kamakshi Track Fasteners** **xxii) M/s Vaishno Mata Track** **xxiii) M/s Maa Kali Projects Pvt. Ltd.** **xxiv) M/s Qualite Steels** **xxv) M/s M K Corporation, Raigarh** Roller system is already available on which bar is pushed by the workers. which maintain the length, and end squareness of each bar. Mechanized feeder needs continue power press cutting system which can lead to defecate the end squareness, accident & more rejections. It should remain optional.	

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			Cutting Die and Blades are to be regularly checked and repaired in order to maintain the end squareness of the bar.	
2.1.4	**Hydro-Copying turning machine (Only for ERC Mk-V):** One Hydro-copying turning machine with sufficient capacityto make the profile of central leg of ERC Mk-V as per the drawing should be available, preferably near the cutting power press.	**Hydro-Copying turning machine (Only for ERC Mk-V):** One Hydro-copying turning machine with sufficient capacity / Hydro-copying turning machine with Automatic bar feeding arrangementto make the profile of central leg of ERC Mk-V as per the drawing should be available, preferably near the cutting power press	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Hydro-Copying machine of sufficient capacity are available. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices, Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Acceptable as per draft Item Specific Guideline and STR **xiii) M/s Pathik Engineering Works, Chattisgarh** Manual feeding in Hydro-copying turning machine is more appropriate. There is no any technical improvement by providing proposed Hydro-copying turning machine with	To eliminate the human error in turning of the bars to desired length and diameter, Automatic bar feeding arrangementwas added in the STR. This para was discussed in meeting held on 24.01.2025 with ERC vendors and it was agreed that Hydro-copying turning machine with Automatic bar feeding arrangementshall be made optional Accordingly, Para has been modified

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			automatic bar feeding arrangement and it does not improve any results. This machine is also very costly which will ultimately increase the manufacturing cost of ERCs and any positive result will be obtained. **xiv) M/s Prakash Mettalic Pvt. Ltd. ,Raipur** Existing Hydro-Copyingmachines cannot befitted with sucharrangements nor willthis arrangementimprove quality of thematerial. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xxvi) M/s Adinath Industries INC** **xxvii) M/s R. Rashmi Industries** **xxviii) M/s Swatee Steels** **xxix) M/s Digvijay Steels** **xxx) M/s Ved Kiran Steels** **xxxi) M/s Kamakshi Track Fasteners** **xxxii) M/s Vaishno Mata Track** **xxxiii) M/s Maa Kali Projects Pvt. Ltd.** **xxxiv) M/s Qualite Steels** **xxxv) M/s M K Corporation, Raigarh** Every unit has numbers of Hydro-copying machine already	

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			installed in which automatic bar feeder arrangements cannot be fitted & these machines cannot be made of scrap. Huge investment is already made by vendors. The automatic feeding arrangements do not solve any additional quality improvement which is discussed in the meeting with the Machine Manufacturer as well.	
2.1.5	**Bench Grinder:** Bench grinder should be available near the cutting press to ground any sharp edges/ burrs from the cut bars	**Bench Grinder:** Bench grinder should be available near the cutting press to ground any sharp edges/ burrs from the cut bars	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR.	No changes in this para were proposed.
2.1.6	**Gauge for checking length of cut bars:** Go/No Go gauge should be available to check the correctness of nominal length of cut bars within + 1.5 mm and – 0 mm	**Gauge for checking length of cut bars:** Go/No Go gauge should be available to check the correctness of nominal length of cut bars within + 1.5 mm and – 0 mm	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR.	No changes in this para were proposed.
2.1.7	**Racks:** Pigeonhole racks to store the cut rods heat wise should be available near the heating furnace.	**Racks:** ~~Sufficient~~Pigeonhole racks to store the cut rods of at list one day production heat wise should be available near the heating furnace. Separate racks to store raw material heat wise should be available.	**i) M/s Jekay International Track Pvt. Ltd.** Remove this point - if the cutting / feeding and final forging process is automatic **ii) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd.** **iv) M/s Surya Coach Builders Pvt. Ltd. Unit II**	Presently, ERC plants are not fully, automatic. Hence Pigeonhole racks to store the cut bars is required.

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			v) M/s Siddhartha Metal Fabricators, Faridabad **vi) M/s Modern Manufactures, Panchkula** **vii) M/s Vaishno Mata Track, Faridabad** **viii) M/s Fateh Chand Jain, Faridabad** **ix) M/s MMD Rail Tracks, Panchkula** **x) M/s Bridge Tracks & Tower Pvt. Ltd** Sufficient Racks to store the cut Rods heat wise are available. **xi) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xii) M/s Nandi Enterprices , Kolkata** **xiii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Rack- Rack Size should be such that number 35000 nos. of ERC. of same heat should be stacked. heat wise for traceability of Heat Wise Raw Material. This is only possible when Raw Material manufactures supply Raw Material heat wise not as per their wish. **xiv) M/s Pathik Engineering Works, Chattisgarh** Agreed. The world "list" to be replaced by "least" **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xv) M/s Adinath**	After cutting the bars, there is a possibility to mix with the other bars whose heat no. is different. This is leading to failures in the check analysis of chemical composition. To eliminate the above possibility, Pigeonhole racks to store the cut rods of at least one day production is added in the STR.

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			Industries INC **xvi) M/s R. Rashmi Industries** **xvii) M/s Swatee Steels** **xviii) M/s Digvijay Steels** **xix) M/s Ved Kiran Steels** **xx) M/s Kamakshi Track Fasteners** **xxi) M/s Vaishno Mata Track** **xxii) M/s Maa Kali Projects Pvt. Ltd.** **xxiii) M/s Qualite Steels** **xxiv) M/s M K Corporation, Raigarh** Pigeonhole Racks will be made available.	
2.1.8	**Heating furnace:**"Induction heating pusher type furnace fitted with accept / reject system using double colored Radiation Pyrometer should be available	**Heating furnace:**~~Indirect oil fired walking beam type or Indirect gas fired walking beam type heating furnaceshould be available~~. ~~An automatic temperature control device and continuous temperature recorder should alsobe fitted with~~ ~~OR~~ "Induction heating ~~pusher type~~furnace fitted with accept / reject system using double colored Radiation Pyrometer should be available".	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Heating Furnace oil fired or Gas Fired or Induction heating pusher type all are being used as per vendors choice and are good enough to feat the bars at required temperature.	In Heating Furnace oil fired or Gas Fired walking beam type, following issues have been found which affect the quality of the ERCs in regular production: i) The soaking time in the furnace is more than 14 minutes. This is leading to over burning of bars, section reduction due to the over scaling ii) Bars in the furnace stick together with other bars iii) Difficult to maintain uniform temperature in the furnace

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			Implementing only Induction heating Furnace will cost heavily to vendors as we need additional Substation for LT/HT connection, sufficient capacity of transformer, cooling System, Under Ground and Over head water tank with inbuilt with continuous system, power backup and finally Induction Heating with Pusher and heating Coil. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices , Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Heating Furnace- Minimum 250 KW Induction Heating Pusher type furnace fitted with accept/reject system using double colored Radiation Pyrometer should be available. **xiii) M/s Pathik Engineering Works, Chattisgarh** Agreed with the proposed changes. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xiv) M/s Adinath Industries INC** **xv) M/s R. Rashmi Industries** **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels**	iv) Environmental issue at some places is also with the furnace. To eliminate the above issuesand improve the quality of ERC Induction heating furnace is required. **Hence the comments of the firms are not accepted**.

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			xix) M/s Kamakshi Track Fasteners **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels** **xxiii) M/s M K Corporation, Raigarh** Heating Furnaces Oil Fired or Gas Fired or Induction heating Pusher type all are being used as per vendors choice and are good enough to heat the bars at required temperature depending upon the mode of fuel/energy available in respective industrial zones. Implementing only Induction Heating Furnace will cost heavily to vendors as we need additional Substation for LT/HT connection, sufficient capacity of Transformer, Cooling System, Under Gound and Over head water tank with inbuilt continuous water system, Pusher and heating Coil. There are several industrial areas where sufficient electricity connection load is not available. Electricity Tariff varies from state to state due to which using electric induction is not viable in many such states which is not good for fair competition Many units do not have sufficient area to make such additional infra changes The cost of implementing the entire infra for working with Induction heating furnace is 2cr	

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			itself which is unviable to MSE units. Induction heating furnace will not solve the purpose to achieve the toe load. Hence, as discussed in the meeting, Induction heating Furnace should continue to be optional along with Oil fired and gas fired for existing units.	
2.1.9	**Power Press for forming clip:** Power press of sufficient capacity fitted with the required dies should be available for formation of clips installed near the heating furnace such that the time taken between taking out the heated bars to forming the clips and then dipping them in oil quenching bath can be completed within 20 seconds. Necessary die checking templates should be available at the works for checking the wear and tear of the dies.	**Power Press for forming clip:** Power press of sufficient capacity fitted with the required dies **made of YXR-33 / carbide material for** the sequential bending process for the formation of the clip with or without robotic feeder should be available for formation of clips installed near the Induction heating furnace such that the time taken between taking out the heated bars to forming the clips and then dipping them in oil quenching bath can be completed within 20 seconds. Necessary die checking templates should ~~also~~ be available at the works for checking the wear and tear of the dies. Dies shall be checked before starting the shift andafter production ofevery 4000 nos. of clips.The checking shall be done using especially prepared templates. At the start of the shift, the dies shall be checked using the templates for the first bend, second bend and the assembly die. If, the ERCs produced are as per the prescribed dimensions, only first bend and second bend need to be checked after production of 4000 ERCs. Record of checking shall be maintained in a separate register with details of maintenanceof the dies.	**i) M/s Jekay International Track Pvt. Ltd.** Formation should take place using a sequential bending process so that there is a separate press for each die required for the formation of the clip. (This ensures better control for each forging operation). The feeding of material from one press to the other should be robotic in order to ensure even bends and stable geometry. **ii) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd.** **iv) M/s Surya Coach Builders Pvt. Ltd. Unit II** **v) M/s Siddhartha Metal Fabricators, Faridabad** **vi) M/s Modern Manufactures, Panchkula** **vii) M/s Vaishno Mata Track, Faridabad** **viii) M/s Fateh Chand Jain, Faridabad** **ix) M/s MMD Rail Tracks, Panchkula**	The sequential bending process for the formation of the clip with robotic feeder can be used by the firm at present. This may be opted as an optional and para may be revised accordingly.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			x) M/s Bridge Tracks & Tower Pvt. Ltd Dies are regularly checked & maintained before and after daily production. Bar of 4000 nos. should not be made compulsory as dies may need correction even earlier and should be kept as dies may need correction even earlier and should be kept a daily check twice in a day's production. **xi) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xii) M/s Nandi Enterprices , Kolkata** **xiii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Power Press for forming Clip & Scale Blower- Robotic Manipulators for part pick up from conveyor, Manipulator for Part Pick from 3rdd Press, Chip/Scale Blowing System for presses. Robot with interface Panel with electrical accessories wiring should be available. Necessary arrangements should be available for Robotic Manufacturing of 1st, 2nd & 3rdBend which can give us better accuracy in dimension. Power Press for forming Clip & Scale Blower- Robotic Manipulators for part pick up from conveyor, Manipulator for Part Pick from 3rdd Press, Chip/Scale Blowing System for presses. Robot with interface Panel with electrical accessories wiring should be available. Necessary arrangements should be available	Recently, samples were picked from the field for quality testing in RDSO and most of the samples failed in dimension. Dimensions of ERC are controlled by the dies only. To control the dimension during mass production the die checking through standard templets has been added. The sequential bending process for the formation of the clip with robotic feeder can be used by the firm at present. This may be opted as an optional and para has been revised accordingly.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			for Robotic Manufacturing of 1st, 2nd & 3rd Bend which can give us better accuracy in dimension. **xxiv) M/s Pathik Engineering Works, Chattisgarh** Agreed with the proposed changes. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xxv) M/s Adinath Industries INC** **xxvi) M/s R. Rashmi Industries** **xxvii) M/s Swatee Steels** **xxviii) M/s Digvijay Steels** **xxix) M/s Ved Kiran Steels** **xxx) M/s Kamakshi Track Fasteners** **xxxi) M/s Vaishno Mata Track** **xxxii) M/s Maa Kali Projects Pvt. Ltd.** **xxxiii) M/s Qualite Steels** **xxxiv) M/s M K Corporation, Raigarh** ERC manufacturing Die is the set of various portable parts. Dies are maintained according to the non-conformity found during production process. Dies are regularly Checked and maintained before, after and	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			during daily production. Bars of 4000 nos. should not be made compulsory as dies may need correction even earlier and should be kept as daily check twice in a day's production and record shall be maintained.	
2.1.10	**Scale blower:** There should be an arrangement for blowing off scales from the dies fitted into the clip forming press. For this purpose a compressor with capacity should be available	**Scale blower:** There should be an arrangement for blowing off scales from the dies fitted into the clip forming press. For this purpose a compressor with at least 3 Kg/cm^{2}capacity should be available	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II.** **iv) M/s Siddhartha Metal Fabricators, Faridabad.** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **x) M/s Adinath Industries INC** **xi) M/s R. Rashmi Industries** **xii) M/s Swatee Steels** **xiii) M/s Digvijay Steels** **xiv) M/s Ved Kiran Steels** **xv) M/s Kamakshi Track Fasteners** **xvi) M/s Vaishno Mata Track**	Ordinary hand blower is not effective during the mass production. Therefore, the compressed air

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			xvii) M/s Maa Kali Projects Pvt. Ltd. **xviii) M/s Qualite Steels** **xix) M/s M K Corporation, Raigarh** Compressor for scale blowing is available of sufficient capacity. **xx) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xxi) M/s Nandi Enterprices, Kolkata** **xxii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR **xiii)M/s Pathik Engineering Works, Chattisgarh** Use of hand blower equipment is also technically suitable and more efficient for blowing of scales. It covers all spaces and corners of dies.	blower has been added to clean the scale from the dies effectively. Hence comments of the firms are not accepted.
2.1.11	**Oil quenching tank:** Oil-quenching tank of adequate length, width and depth should be available fitted with a conveyor belt passing through the oil. Facility for cooling the oil by way of heat exchange with cooling tower along with continuous temperature recorder should be available such that the temperature of oil does not exceed 70˚ centigrade. Oil tank should also be fitted with mechanical / motorized stirrerto maintain uniform temperature of oil throughout the tank. The speed of the conveyer belt shall facilitate the clip to be in oil for at least 12 minutes.	**Oil quenching tank:** Oil-quenching tank of adequate length, width and depth should be available fitted with a conveyor belt passing through the oil. Facility for cooling the oil by way of heat exchange with separatecooling tower along with continuous temperature recorder should be available such that the temperature of oil does not exceed 70˚ centigrade. Oil tank should also be fitted with mechanical / motorized stirrer and filter with sufficient capacity to maintain uniform temperature of oil throughout the tank. The speed of the conveyer belt shall facilitate the clip to be in oil for at least 12 minutes. ~~The oil quenching followed by tempering process must take place in line. No discontinuity should be allowed between these processes. The transfer of Oil quenched clip to~~	**i) M/s Jekay International Track Pvt. Ltd.** **Oil quenching tank:** As an alternative to oil quenching, water soluble quenching liquid may also be allowed. Water soluble quenching tank of adequate length, width and depth should be available with a conveyor belt passing through the liquid. Facility for cooling the liquid by way of heat exchange with cooling tower along with continuous temperature recorder should be available such that temperature of the liquid does not exceed 42 degrees Celsius. Tank should also be fitted with	The suggestion of water soluble quenching liquid is not accepted as the heat treatment of ERC is defined as heating, oil quenching followed by and tempering.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
		~~tempering process must be automatic without any manual intervention.~~	mechanical / motorized stirrer and filter with sufficient capacity to maintain uniform temperature of oil throughout the tank. **Additional Points:** Coating: The clips shall Zinc flakes coated thickness of which shall ensures that they withstand 960 hours of Neutral Salt Spray Test. **ii) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd.** **iv) M/s Surya Coach Builders Pvt. Ltd. Unit II** **v) M/s Siddhartha Metal Fabricators, Faridabad** **vi) M/s Modern Manufactures, Panchkula** **vii) M/s Vaishno Mata Track, Faridabad** **viii) M/s Fateh Chand Jain, Faridabad** **ix) M/s MMD Rail Tracks, Panchkula** **x) M/s Bridge Tracks & Tower Pvt. Ltd** The process to transfer oil quenched clips to tempering are placed manually by workers so as the heat and air should circulate and pass through clips without any hindrance. The continuous and automatic conveyor will lead to stacking problem on the conveyor belt of tempering furnace and also setting of the present infrastructure also needs to be changed which is not possible	Coating on the clip is a separate subject and shall be delt separately. The continuous process of quenching and tempering through conveyor belt will eliminate the possibility of mixing of tempered ERCs and quenched ERCs. stacking problem on the conveyor belt of tempering furnace can be solve by designing

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			keeping space into consideration. **xi) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xii) M/s Nandi Enterprices , Kolkata** **xiii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Oil Quenching Tank- Minimum Oil Quenching Tank capacity should be 20000 Ltrs. The tank should have conveyor belt passing through oil. Facility for cooling the oil by way of heat exchangers along with separate cooling towers with computer graph recorder should be installed such that the temperature of oil does not exceed 70 degree C. The oil quenching followed by tempering process must take place in line. No discontinuity should be allowed between these processes. The transfer of Oil quenched clip to tempering process must be automatic without any manual intervention. **xiv) M/s Pathik Engineering Works, Chattisgarh** Provision of filter in quenching tank will not serve any purpose. Scaling of ERCs gets to deposit in the bottom of oil tank therefore regular cleaning of tank is sufficient to maintain the specified temperature. Transfer of quenched clips to tempering unit may not be automatic because	conveyor beltofsufficient length. The suggestion of separate cooling towers with computer graph recorder for quenching tank has been examined and para has been modified. Provision of filter in quenching tank will help maintain the uniform temperature in the quenching tank and clean the oil

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			quenched clips are arranged manually on the conveyor before entering in to the tempering furnace and more no. of clips can be accommodated in manual system **xv) M/s Prakash Metallic Pvt Ltd. Raipur** The process to transfer oil quenched clips to tempering are placed manually by workers so as the heat and air should circulate and pass through clips without any hindrance. The continuous and automatic conveyor will lead to stacking problem on the conveyor belt of tempering furnace and also setting of the present infrastructure also needs to be changed which is not possible keeping space into consideration. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xvi) M/s Adinath Industries INC** **xvii) M/s R. Rashmi Industries** **xviii) M/s Swatee Steels** **xix) M/s Digvijay Steels** **xx) M/s Ved Kiran Steels** **xxi) M/s Kamakshi Track Fasteners** **xxii) M/s Vaishno Mata Track** **xxiii) M/s Maa Kali Projects**	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Pvt. Ltd. **xxiv) M/s Qualite Steels** **xxv) M/s M K Corporation, Raigarh** Quenching oil tank is fitted with sufficient capacity of heat exchanger and water cooling tower to maintain temperature. Filter will not serve the additional purpose as it gets chocked quite often. Instead, the quenching tank should be cleaned and oil should be topup/replaced at certain intervals. The Process to transfer Oil Quenched Clips to Tempering are placed manually by workers so as the heat and air should circulate and pass-through clips without any hinderance As discussed in the meeting, the Continuous & automatic transfer of oil quenched clips to tempering furnace may also affect the hardness of clips in case the out put of clips from production & quenching decreases due to break down or maintenance in dies. The continuous and automatic conveyor will lead to stacking problem on the conveyor belt of Tempering Furnace and also setting of the present Infrastructure also needs to be changed which is not possible keeping space into consideration. Since it has no relevance to improving the quality or toe load rather affect the hardness and give additional cost burden to MSE units, the Proposal to	After discussion with the firms, the provision of Continuous & automatic transfer of oil quenched clips to tempering furnace has been deleted as the present infrastructure restricts the above provisions and Para has been modified.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			transfer Oil Quenched Clips to Tempering process automatic and staking clips on conveyor is not possible.	
2.1.12	**Tempering furnace:** The tempering furnace shall be continuous Electrical tunnel type, fitted with conveyor system. Above furnace shall be fitted with thermo- couples to sense the temperature at three points along its length to ensure the constant temperature zone along length of the furnace. The speed of the conveyor should facilitate the clips to be in tempering furnace for minimum period of 50 minutes. The furnace shall be fitted with an automatic temperature control device and continuous temperature recorder. The furnace shall have an arrangement for free circulation of hot air	**Tempering furnace:** The tempering furnace shall be ~~oil fired tunnel type or gas fired tunnel type or~~ continuous Electrical tunnel type~~/well type~~, fitted with conveyor system~~/hanger~~. Above furnace shall be fitted with thermo-couples to sense the temperature at three points along its length to ensure the constant temperature zone along length of the furnace. The speed of the conveyor should facilitate the clips to be in tempering furnace for minimum period of 60 minutes. Each zone of the Electrical Furnace should have thyristor based control system to ensure the desired temperature. The furnace shall be fitted with an automatic temperature control device and continuous temperature recorder. The furnace shall have an arrangement for free circulation of hot air.	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** The tempering furnaces at present are Oil Fired/Gas Fired tunnel type fitted with conveyor system or electric well type. Converting the oil/gas fired tempering furnace into electric tempering furnace is not feasible & again needs addition power load connection which will cost heavily to MSE units. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices , Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Tempering Furnace should be electrically heated continuous conveyorized type furnace with	The temperature control in the different zones in the Oil Fired/Gas Fired tempering furnaces is difficult, which is leading to variation in the hardness of clip. Therefore, Electrical tunnel type / well type with thyristor based control system has been added in the STR to ensure the desired temperature across the tunnel.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			thermo couples to sense the temperature at 4 different point along with length of the furnace. The furnace should be controlled with PLC Panel & HDMI Display and the speed of the conveyor should be controlled by variable frequency drive. The furnace shall be fitted with an automatic temperature control device and continuous temperature recorder. The furnace shall have an arrangement for free circulation of hot air. **xiii) M/s Pathik Engineering Works, Chattisgarh** Agreed with the proposed modifications. Appropriate/adequate period shall be given by RDSO to install the electrical tunnel type tempering furnace. Strict compliance to install this furnace shall be ensured within the given time frame otherwise action should be taken by RDSO to stop theproduction of such approved firms not complying the installation **xiv) M/s Prakash Metallic Pvt Ltd. Raipur** Although conversion ofreheating furnace fromoil/gas to electricfurnace, improves dimensional accuracy ofthe clip but no suchquality improvement isseen on converting thetempering furnace toelectric. Hardness caneasily be maintained onan oil fired	Comment as above.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			temperingfurnace. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xv) M/s Adinath Industries INC** **xvi) M/s R. Rashmi Industries** **xvii) M/s Swatee Steels** **xviii) M/s Digvijay Steels** **xix) M/s Ved Kiran Steels** **xx) M/s Kamakshi Track Fasteners** **xxi) M/s Vaishno Mata Track** **xxii) M/s Maa Kali Projects Pvt. Ltd.** **xxiii) M/s Qualite Steels** **xxiv) M/s M K Corporation, Raigarh** The tempering Furnaces at present are Oil fired/Gas Fired tunnel type fitted with Conveyor system or Electric well type. Converting the Oil/Gas fired tempering furnaces into Electric Tempering furnace is not feasible and again needs addition power load connection which will cost heavily to MSE units. The tempering Furnaces Oil fired/Gas Fired tunnel type fitted with Conveyor system or Electric well type should remain to be continued. The range of hardness should be with tolerance from **40-44 HRC ±2 HRC**	To improve the quality of ERC, continuous Electrical tunnel type furnace isrequired. Para has been modified. **Hence the comments of the firms are not accepted**.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Electric tunnel type tempering furnace can be made optional.	
2.1.13	Magnetic particle crack detector as per IS: 3703:2004 shall be available for crack detection in raw material cut bars, before using them in production	Magnetic particle crack detector as per IS: 3703:2004 shall be available for crack detection in raw material cut bars, before using them in production	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Since Magnetic particle crack is a raw material defect & generated due to rolling of bars hence it should be made mandatory to steel producers instead on us. However, we shall continue to perform the test as per given sample plan IS:2500 table 2A AQL 1.5%. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices , Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Magnetic Particle Crack Detection Machine- 100% Crack detection of raw material of ERC MK-V & MK-lll should be in the scope of raw material manufacturer and it should not be in the scope of ERC	This aspect has already been discussed atvarious forums. However, the issue raised by the firmshas been examined. No changes in the para are warranted.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Manufacturer. **xiii) M/s Pathik Engineering Works, Chattisgarh** Compliance of 100% MPI testing of rolled bars shall be ensured by the raw material manufacturer along with other specified tests at their premises. Test certificate in this regard shall be provided to ERC approved vendor during procurement of rolled bars. Random checking of procured rolled bars for crack detection, surface defect, chemistry, short length, heat-wise segregation etc. will also be done by ERC manufacturers. Defects observed if any, should be reported to RDSO by ERC manufacturers along with supporting documents and photographs. **xiv) M/s Prakash Metallics Pvt. Ltd., Raipur** Roller system is already available on which bar is pushed by the workers. which maintain the length,and end squareness of each bar**.** Mechanized feederreduces the endsquareness, increasesrejections due to shortlength cut by the feeder, thereby reducingproduction capacity. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xiv) M/s Adinath Industries INC**	This aspect has already been discussed in different forums.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			xv) M/s R. Rashmi Industries **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels** **xix) M/s Kamakshi Track Fasteners** **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels** **xxiii) M/s M K Corporation, Raigarh** Since Magnetic particle crack is a raw material defect & generated due to rolling of bars hence it should be made mandatory to Steel producers instead on us. However, we shall continue to perform the test on Maximum of 02 pcs per heat instead of 100% which is neither feasible nor required.	However, the issue raised by the firms has been examined. No changes in the para are warranted.
2.1.14	New Para Added	**Material handling:**The clip manufacturer must have facility of EOT, Fork lift or conveyor system for transfer of Raw Material/ In-process/ Finished Product	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd**	

Para No.	**Existing provision in STR of ERC**	**Modified provision in STR of ERC (Modification shown in red)**	**Comments /Suggestions by stakeholders**	**RDSO's Remarks**
			EOT crane needs Shed of sufficient capacity to bear the load, Fork lift or any conveyor system needs space to move and cannot be implemented. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices , Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Material Handling- Agreed as per draft Item Specific Guideline and Schedule Technical Requirements. **xiii) M/s Prakash Metallic Pvt Ltd. Raipur** Existing Hydro-Copyingmachines cannot befitted with sucharrangements nor willthis arrangementimprove quality of thematerial **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xiv) M/s Adinath Industries INC** **xv) M/s R. Rashmi Industries** **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels** **xix) M/s Kamakshi Track Fasteners** **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels**	Comments of the firm have been examined and para has been modified.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			xxiii) M/s M K Corporation, Raigarh EOT crane needs Shed of sufficient capacity to bear the load, Fork lift or any conveyor system needs space to move and cannot be implemented It has no quality driven measure and has no relevance to achieve the toe load, hardness, or flat bearing Area. Hence it should be kept optional on the basis of individuals requirement.	
2.1.15	New Para Added	A small in-process checking room having surface plate height gauge, vernire calipers, hardness testing machine & toe load testing arrangement should be available near the manufacturing area for conducting the in-process check of ERCs	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Inspection Room equipped with Hardness Tester, Toe load testing equipment, surfacePlate, height Gauge, vernier calipers etc are available near the manufacturing area itself. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices, Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd.,**	Recently, during inspection of various firms of ERC, it was observed that the separate in-process inspection room is necessary for better quality control during production. However, the comments of the firm have been examined and para has been modified.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Kolkata Acceptable as per draft Item Specific Guideline and STR **xiii) M/s Pathik Engineering Works, Chattisgarh** Agreed, this facility may be arranged **xiv) M/s Prakash Metallic Pvt Ltd. Raipur** Inspection Room equipped with Hardness Tester, Toe load testing equipment, surfacePlate, height Gauge, vernier calipers etc are available near the manufacturing area itself. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xv) M/s Adinath Industries INC** **xvi) M/s R. Rashmi Industries** **xvii) M/s Swatee Steels** **xviii) M/s Digvijay Steels** **xix) M/s Ved Kiran Steels** **xx) M/s Kamakshi Track Fasteners** **xxi) M/s Vaishno Mata Track** **xxii) M/s Maa Kali Projects Pvt. Ltd.** **xxiii) M/s Qualite Steels** **xxiv) M/s M K Corporation, Raigarh** Inspection Room equipped with Hardness Tester, Toe load testing equipment, surface plate, height	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Gauge, vernier calipers etc shall be made available near the manufacturing area within 20 sq mts of Manufacturing area.	
2.1.16	New Para Added	The clip manufacturer must have facility of power back up of sufficient capacity to support tempering furnace up to minimum 1 hour	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Use of Diesel Generator is banned in DELHI-NCR region except for Hotels, Hospitals or Government Offices. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices, Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR **xiii) M/s Pathik Engineering Works, Chattisgarh** Agreed. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms**	The comments of the firm has been examined, and para has been modified

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			received after meeting are as follows: **xiv) M/s Adinath Industries INC** **xv) M/s R. Rashmi Industries** **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels** **xix) M/s Kamakshi Track Fasteners** **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels** **xxiii) M/s M K Corporation, Raigarh** Use of Diesel Generator is banned in DELHI-NCR region except for Hotels, Hospitals or Government Offices. Power Back-up should be optional as per the individual's requirement and unless supported by the respective Industrial area.	
2.2	**TESTING FACILITIES:** All measuring and testing equipments shall be installed in a separate laboratory room, which shall be well lit, clean and properly ventilated and provided with easily maintainable floor and platform should be available at the works			
2.2.1	**Chemical Testing:** Optical emission spectrometer should be available in the laboratory for carrying out chemical analysis to determine the carbon, sulphur, phosphorous, silicon and manganese percentage in the materialelse the firm should possess a no objection certificate from RDSO for carrying out chemical analysis of material spectrographically from RDSO approved / accredited by Accreditation agency / Government owned spectro source as and when required by them within specified time frame. In such case, distance of spectro lab from firm work firm's works site should preferably not be more than 100km for sake of smooth working / inspection. In case, Spectrometer is provided by the Firm	**Chemical Testing:** Optical emission spectrometer should be available in the laboratory for carrying out chemical analysis to determine the carbon, sulphur, phosphorous, silicon and manganese percentage in the material ~~else the firm should possess a no objection certificate from RDSO for carrying out chemical analysis of material spectrographically from RDSO approved / accredited by Accreditation agency / Government owned spectro source as and when required by them within specified time frame. In such case, distance of spectro lab from firm work firm's works site should~~	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad**	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
	thenSpectrometer should be maintained and used as per the recommended manual / procedures of OEM like using recommended grade of Argon gas with argon flushing system, sample preparation facility, air conditioned room etc. Spectrometer shall be standardized as per the operation manual of the manufacturer of the instrument. In addition, Standard sample i.e. certified reference material (CRM) shall be available with the lab to confirm that standardization is correct. Also, Laboratory must be in possession of certified standard samples (CRM) in the close range of chemical composition of ERC. The Spectrometer should be calibrated by OEM regularly. In case, inspecting official wants to carry out the test from outside, for various reason, then the test can be conducted in spectro sources owned by Govt. / accredited by Accreditation agency as per extant guidelines issued by RDSO.	~~preferably not be more than 100km for sake of smooth working / inspection.~~ ~~In case, Spectrometer is provided by the Firm then~~Spectrometer should be maintained and used as per the recommended manual / procedures of OEM like using recommended grade of Argon gas with argon flushing system, sample preparation facility, air conditioned room etc. Spectrometer shall be standardized as per the operation manual of the manufacturer of the instrument. In addition, Standard sample i.e. certified reference material (CRM) shall be available with the lab to confirm that standardization is correct. Also, Laboratory must be in possession of certified standard samples (CRM) in the close range of chemical composition of ERC. The Spectrometer should be calibrated by OEM regularly. In case, inspecting official wants to carry out the test from outside, for various reason, then the test can be conducted in spectro sources owned by Govt. / accredited by Accreditation agency as per extant guidelines issued by RDSO.	**viii) M/s MMD Rail Tracks, Panchkula** **ix)M/s Bridge Tracks & Tower Pvt. Ltd** Spectrometer is a sensitive instrument and attracts heavy cost of approx. 25 lacs. Unless it is utilized regularly on daily basis the instrument go into error mode and every time service engineer is required to resolve the issue which is quite cost driven and frustrating job. Every Industrial area is facilitated with NABL accredited lab. We need to do very few pcs tested for spectro per heat. In view of the above the spectro test facility should remain to be continued as earlier **xxiv) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xxv) M/s Nandi Enterprices , Kolkata** **xxvi) M/s Kalimata Ispat Industries Pvt. Ltd. , Kolkata** Acceptable as per draft Item Specific Guideline and STR **xxvii) M/s Pathik Engineering Works, Chattisgarh** In case the firm is having two approved units of ERCs under the same ownership situated nearby i.e. not more than 10 Km. distance and spectrometer approved by RDSO is available at its one unit only then the firm may be allowed for spectrographic testing of Clips & rolled bars at its approved unit	The spectrometer is required to ascertain the chemical composition of the clips. Hence the comments of the firms are not accepted.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			where specified & approved spectrometer is available. This aspect will be mentioned in the approved Quality Assurance Programme (QAP) of the firm not having the Spectrometer at their works. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xxviii) M/s Adinath Industries INC** **xxix) M/s R. Rashmi Industries** **xxx) M/s Swatee Steels** **xxxi) M/s Digvijay Steels** **xxxii) M/s Ved Kiran Steels** **xxxiii) M/s Kamakshi Track Fasteners** **xxxiv) M/s Vaishno Mata Track** **xxxv) M/s Maa Kali Projects Pvt. Ltd.** **xxxvi) M/s M K Corporation, Raigarh** Spectrometer is highly sophisticated and sensitive instrument and attracts heavy cost of approx. 25 lacs. Unless it is utilized regularly on daily basis the instrument go into error mode and every time service engineer is required to resolve the issue which is quite cost driven and frustrating job. Every Industrial area is	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			facilitated with NABL accredited labs. We need to do only 07 pcs per heat tested for spectro analysis. Installation of Spectrometer by every firm will cost heavily to MSE units and shall remain optional to existing Units and should be made mandatory to fresh approval of ERC Units. Chemical analysis through Spectro from any RDSO/NABL accredited lab within 100Km should remain to be followed as usual. **xxxvii) M/s Qualite Steels** Spectrometer is available in the laboratory for carrying out chemical analysis to determine the carbon , sulphur , phosphorus , silicon and manganese % in the material.	
2.2.2	**Hardness tester:** Two hardness testing machines of same method (Rockwell Hardness) along with standard test blocks with certificate should be available in the firm's laboratory to test the hardness of raw and finished material. Hardness of Standard test blocks should be in close range of hardness of raw and finished material. The calibration of hardness testing machines should be done through Govt. Approved / Accredited labs.	**Hardness tester:** Two ~~motorized~~ ~~digital~~hardness testing machines of same method (~~any of Vickers Hardness / Brinell Hardness /~~ Rockwell Hardness) along with standard test blocks with certificate should be available in the firm's laboratory to test the hardness of raw and finished material. Hardness of Standard test blocks should be in close range of hardness of raw and finished material. The calibration of hardness testing machines should be done through Govt. Approved / Accredited labs.	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Two nos. of Rockwell hardness tester with standard test block are available.	The comments of the firm have been examined and para has been modified

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Motorized Digital Rockwell hardness tester has no additional benefits. **x) M/s Pathik Engineering Works, Chattisgarh** Option of manually operated hardness testing machine should also be there as it takes approximately same time in measurement. **xi) M/s Prakash Metallic Pvt Ltd. Raipur** Two nos. of Rockwell hardness tester with standard test block are available. Motorized Digital Rockwell hardness tester has no additional benefits. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xii) M/s Adinath Industries INC** **xiii) M/s R. Rashmi Industries** **xiv) M/s Swatee Steels** **xv) M/s Digvijay Steels** **xvi) M/s Ved Kiran Steels** **xvii) M/s Kamakshi Track Fasteners** **xviii) M/s Vaishno Mata Track** **xix) M/s Maa Kali Projects Pvt. Ltd.** **xx) M/s Qualite Steels** **xxi) M/s M K Corporation, Raigarh**	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Two nos. of Rockwell hardness tester with standard test block are available. Motorized Digital Rockwell hardness tester has no additional benefits and we cannot make our existing machines scrap. Motorized Digital Rockwell hardness tester is personal choice and has no quality implication on our product hence should be kept as optional on individuals' choice.	
2.2.3	**Proving ring:** Two proving rings of sufficient capacity should be available for use with the toe load test arrangement available in laboratory. These should be duly calibrated through National Physical Laboratory / NTH approved laboratory or through Labs Accredited by Accreditation agency as per extant guidelines issued by RDSO.	**Proving ring:** Two proving rings of sufficient capacity should be available for use with the toe load test arrangement available in laboratory. These should be duly calibrated through National Physical Laboratory / NTH approved laboratory or through Labs Accredited by Accreditation agency as per extant guidelines issued by RDSO.	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Not required as proving rings are calibrated time to time by OEM and supplier.	No Change proposed in this para.
2.2.4	**Toe load testing arrangement:** For toe load testing, arrangement as per RDSO drawing should be available at the works. Toe load be measured through UTM machine of sufficient capacity (LC-10kg) with suitable arrangement duly calibrated through test labs Govt. approved or Accredited by Accreditation agency as per extant guidelines issued by RDSO	**Toe load testing arrangement:** For in-process toe load testing, arrangement as per RDSO drawing should be available at the works. ~~OR~~ Final Toe load ~~can also~~ should be measured through UTM machine of sufficient capacity (LC-10kg) with suitable arrangement duly calibrated through test labs Govt. approved or Accredited by Accreditation agency as per extant guidelines issued by RDSO	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd** Toe Load testing arrangement is available as per RDSO drawing	Comments of the firm have been examined

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			for in process and final toeload test. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices, Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR **xiii) M/s Prakash Metallic Pvt. Ltd. Raipur** Toe Load testing arrangement is available as per RDSO drawing for in process and final toeload test. UTM machine is not required to measure toe load. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xiv) M/s Adinath Industries INC** **xv) M/s R. Rashmi Industries** **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels** **xix) M/s Kamakshi Track Fasteners** **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels** **xxiii) M/s M K Corporation, Raigarh** Toe Load testing arrangement is available as per RDSO drawing for in process and final toe load	and comments are as under: Recently, during inspection of various firm's ERCs, it was observed that the majority of the ERCs failed in the toe load. In this regard, it is to mention that the toe load test using proving rings is sensitive to handling and the least count is very high. UTM will help the manufacturer to asses their ERC for the desired toe load as well as the inspecting official during inspection. Hence the comments of the firmsare not accepted.

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			test. UTM machine for final toe load test shall be kept optional as the RDSO based drawing toe load arrangement is quite efficient to measure toe load on ERC hence no change is required.	
2.2.5	**Gauges and application & deflection test fixture:** Two sets of valid approved Inspection gauges (for dimension checking) and application & deflection test fixtures as per RDSO drawing should be available at the firms' premises. Angle-checking fixtures as per RDSO drawing should also be available.	**Gauges and application & deflection test fixture:** Two sets of valid approved Inspection gauges (for dimension checking) and application & deflection test fixtures as per RDSO drawing should be available at the firms' premises. Angle-checking fixtures as per RDSO drawing should also be available. Sufficient capacity Hydraulic/Mechanical press of for conducting the application & deflection test should be available.	**i) M/s Panagarh Engineering works (Patna) Pvt. Ltd.** **ii) M/s Surya Coach Builders Pvt. Ltd.** **iii) M/s Surya Coach Builders Pvt. Ltd. Unit II** **iv) M/s Siddhartha Metal Fabricators, Faridabad** **v) M/s Modern Manufactures, Panchkula** **vi) M/s Vaishno Mata Track, Faridabad** **vii) M/s Fateh Chand Jain, Faridabad** **viii) M/s MMD Rail Tracks, Panchkula** **ix) M/s Bridge Tracks & Tower Pvt. Ltd.** Two Sets of RDSO approved Inspection Gauges are available Angle checking Fixturesas per RDSO drawing is available. Application and deflection test could be performed either ways by manually or through hydraulic/mechanical press. **x) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **xi) M/s Nandi Enterprices, Kolkata** **xii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR **xiii) M/s Pathik**	This is the mandatory provision in the specification. Hence, the comments of the firm are not accepted

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			Engineering Works, Chattisgarh Provision of Hydraulic/Mechanical press for Application & Deflection test of Clips is agreed. However, hydraulic press will be better option. **A meeting held on 24.01.2025 with ERC vendors for discussion on proposed change in STR, comments of firms received after meeting are as follows:** **xiv) M/s Adinath Industries INC** **xv) M/s R. Rashmi Industries** **xvi) M/s Swatee Steels** **xvii) M/s Digvijay Steels** **xviii) M/s Ved Kiran Steels** **xix) M/s Kamakshi Track Fasteners** **xx) M/s Vaishno Mata Track** **xxi) M/s Maa Kali Projects Pvt. Ltd.** **xxii) M/s Qualite Steels** **xxiii) M/s M K Corporation, Raigarh** Two Sets of RDSO approved Inspection Gauges are available Angle checking Fixtures as per RDSO drawing is available. Checking of Inspections gauges can be done more frequently in order to ensure proper dimensions. Application and deflection test continued to be performed either ways by manually or through hydraulic/mechanical press. Since mostly the ERCs are fixed	

Para No.	Existing provision in STR of ERC	Modified provision in STR of ERC (Modification shown in red)	Comments /Suggestions by stakeholders	RDSO's Remarks
			manually in our Indian track system with the help of hammer, it is always recommended to perform test in our units manually through hammer as it works in similar manner as it is driven on track. Any breakage reported can be found in our units itself and while using presses it doesn't give that required results. Hence either of the ways to perform application and deflection test shall be continued to be in use as per individuals' choice.	
2.2.6	**Microscope & Polishing machine:** A duly calibrated metallurgical microscope with 100x, 500x, 1000x magnification with a photographic attachment and measuring facility should be available in the laboratory. The polishing machine with all necessary items like diamond paste etc. shall be available to prepare and check samples for inclusion rating, depth of decarburization, grain size and microstructure	**Microscope & Polishing machine:** A duly calibrated metallurgical microscope with 100x, 500x, 1000x magnification with a photographic attachment and measuring facility should be available in the laboratory. The polishing machine with all necessary items like diamond paste etc. shall be available to prepare and check samples for inclusion rating, depth of decarburization, grain size and microstructure	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR	Comments of the firm have been accepted
2.2.7	**Inclusion rating and grain size charts:** Necessary charts for reading inclusion rating and grain size also should be available in the laboratory as mentioned in the specification of Elastic Rail Clips duly displayed in a glass frame	**Inclusion rating and grain size charts:** Necessary charts for reading inclusion rating and grain size also should be available in the laboratory as mentioned in the specification of Elastic Rail Clips duly displayed in a glass frame	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR	Comments of the firm have been accepted
2.2.8	**Tool room cum die making/repair shop facility:** All necessary tools and machines such as Surface Grinding Machine, lathe machine, cutting machine, Drilling Machine and Welding set etc. should be available in the tools room for manufacturing of gauges and dies. Optional – Vertical machining centre (VMC)	**Tool room cum die making/repair shop facility:** All necessary tools and machines such as Surface Grinding Machine, lathe machine, cutting machine, Drilling Machine and Welding set etc. should be available in the tools room for manufacturing of gauges and dies. Optional – Vertical machining centre (VMC)	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd , Kolkata** Acceptable as per draft Item	Comments of the firm have been accepted

Para No.	**Existing provision in STR of ERC**	**Modified provision in STR of ERC (Modification shown in red)**	**Comments /Suggestions by stakeholders**	**RDSO's Remarks**
			Specific Guideline and STR	
2.2.9	**Calibration of test equipments:** All the test equipments shall be periodically checked and calibrated. The frequency of calibration for Hardness testing Machine, UTM and proving ring shall be once in a year. Inspection gauges and application & deflection test fixture shall be produced before RDSO for approval three months in advance before expiry of approval validity at the time of Quality audit as per ISO guidelines for vendor approval. Details of calibration and due date shall normally be displayed on the equipments in the form of stickers issued by the Calibration agency. Calibration of equipments other than inspection gauges shall be got done from Government laboratory or from labs accredited by Accreditation agency as per extant guidelines issued by RDSO or National Test House (NTH) or Regional Test Center (RTC)	**Calibration of test equipments:** All the test equipments shall be periodically checked and calibrated. The frequency of calibration for Hardness testing Machine, UTM and proving ring shall be once in a year. Inspection gauges and application & deflection test fixture shall be produced before RDSO for approval three months in advance before expiry of approval validity at the time of Quality audit as per ISO guidelines for vendor approval. Details of calibration and due date shall normally be displayed on the equipments in the form of stickers issued by the Calibration agency. Calibration of equipments other than inspection gauges shall be got done from Government laboratory or from labs accredited by Accreditation agency as per extant guidelines issued by RDSO or National Test House (NTH) or Regional Test Center (RTC)	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR.	Comments of the firm have been accepted
2.2.10	Firm shall possess Plant & Machineries detailed in Annexure A and submit details of same on enclosed format given as **Annexure B-I & B-II**	Firm shall possess Plant & Machineries detailed in Annexure A and submit details of same on enclosed format given as **Annexure B-I & B-II**	**i) M/s Kalimata Vyapar Pvt. Ltd. , Kolkata** **ii) M/s Nandi Enterprices, Kolkata** **iii) M/s Kalimata Ispat Industries Pvt. Ltd., Kolkata** Acceptable as per draft Item Specific Guideline and STR	Comments of the firm have been accepted