

## **SAFETY, HEALTH AND ENVIRONMENT**

### **1. SAFETY**

- 1.1 Safety Training & Counselling:** The contractor shall not deploy any staff for execution or work until the staff is provided sufficient training for safety. The record of safety training shall be maintained in Site Order Book duly acknowledge under the signature of the staff. Safety counseling of staff working at site has to be done at regular period and as per latest directives issued by Railways time to time and record of same shall be maintained.
- 1.2 Personal Protection and Safety Gears:** The workers and supervisors of the contractor, shall be always in uniforms with all the personal protection and safety gears eg; Self illumination Vest, Safety Shoes, Safety Belts and Helmets etc.
- 1.3 Safety Procedures & Guidelines**
- a) All of the contractor's staff, supervisor, manager, and team leaders shall follow the rules and regulations, procedures in the shed, stations, yards, tracks buildings etc. The contractor shall ensure that his staff do not trespass and limited the site of work only.
  - b) The contractor shall work under traffic block and power block. The contractor shall take all the precaution so that no infringement causes for train movements.
  - c) The contractor shall barricade the site sufficiently with steel barriers or as directed by Engineer/ Engineer's Representative. The contractor shall provide and display appropriate signages.
  - d) The contractor's execution of work shall not cause any damage to Railway equipments, installation, property etc.
- 1.4 Precautions to be taken for Electrical works:**
- a) The work is to be done in compliance with the National Electrical Code – 2011 or the latest issued by BIS.
  - b) The work done to comply with the provision of CEA (Measures relating to safety and electric supply) regulation 2010.
  - c) Only items confirming relevant BIS to be used if issued by BIS in compliance of CEA (Measures relating to safety and electric supply) regulation 2010. In case, no specification is mentioned then the contractor is restricted to use the material in conformity with BIS in vogue. In such case contractor is to obtain approval of tender issue authority or Sr.DEE in advance.
  - d) Contractor is advised to train / counsel or use only trained workers having the competency to work in the LV system and are aware of electrical safety

### **1.5 Precautions to be taken in 25 KV AC Traction Area:**

- a) Any Signal Telecommunication circuits in the vicinity of AC Traction running parallel to 25 KV lines are liable to be affected by AC induced voltage. Therefore, precautions should be taken to eliminate the possibility of induced voltage affecting equipment and humans.
- b) Crossing of track, if any, should be negotiated by underground cables running at right angles to the track as far as practicable.
- c) Special protective measures (viz. provision of G.D tubes, fuses and earthing etc) are required to be taken for telecommunication lines entering 25 KV substation /switching posts.
- d) For the human safety considerations, the safe working voltages should be 60V under normal conditions and 150V with special .
- e) Instructions for protection of railway staff/working personnel on signaling and telecommunications installations on 25 kV AC traction shall be strictly adhered to. Precautions are required to be taken on account of following, Proximity of live conductor. Pressure of return current in Rails. Induction in all metallic bodies situated closed to overhead equipment.

### **1.6 Precautions at work site:**

- a) All precautions to ensure safety of workmen must be taken while unloading and leading the materials during execution of work. Traffic rules should be strictly followed and the contractor should indemnify the Railway against any claim due to accidents and unforeseen incidents.
- b) The contractor must ensure the safety of labourers engaged by him while crossing the track during the course of execution of work and the Railway will not be responsible for any injury sustained by the labourer or for any fatal accident. The contractor should bear all the loss and expenditure involved. Wherever necessary he should also provide necessary look out men.
- c) The work should be carried out without any interference to the normal working of the Railway track and structures. The contractor will be held responsible for any loss or damage or injury caused during the course of work to the labourer or to the public/private person or to the Railway/ Public/private property and the contractor should bear all the loss and expenditure involved.
- d) Wherever work is to be executed close to any running railway lines or roads or buildings or public passage, the Contractor shall ensure proper protection of public, railway/public property. He shall also ensure all special precautions as provided in this tender.
- e) The contractor shall be responsible for anti-larval work at his cost during progress of works as may be prescribed by the Engineer on the advice of the Railway or any Government Medical authority and where use of insecticides are involved , it shall be done in accordance with the provisions of the act and rules in this behalf at the cost of contractor, who shall also be solely responsible for any acts or omissions under the provision of the aforesaid rules.

- f) The Contractor shall ensure that necessary sanitary facilities are provided by the Contractor for their labour in terms of Clause 59(4) of the General Conditions of Contract, and where they fail to do so notice shall be given to the Contractor that the same will be provided by the Railway at their cost and recovery shall be made from their bills.
- g) Where contractor avails existing sanitary arrangements of the Railways charges as decided by Railway from time to time is recoverable from the contractor.
- h) The contractor shall arrange to obtain permission direct from the State Government or local authorities concerned for using Forest, PWD or Panchayat roads. The rates tendered shall be inclusive of any cess, tax or any other charges payable to the authorities concerned.
- i) The contractor shall make his own arrangements for obtaining the license for any explosives, as may be necessary, for procurement, transportation, storage and use of the same. All possible assistance will be given by the Railway, should there be any difficulties in obtaining the license etc. However, any failure shall not form the basis for any claim by the contractor against the Railway or for additional payment for the work.
- j) In case of use of explosives for blasting the contractor shall strictly abide by the Indian Explosive Act, the Rules and Regulations framed there under in carrying out the work, shall observe all the provisions of the Indian Mine Act and the metaliferous mines regulations and rules there under as well as any other Act and Rules, as may be enacted and laid down by the State and Central Government from time to time, for such work.
- k) The contractor will be held responsible for any loss/damage/injury caused during explosion to the labourers or to the public/private persons or to Railway/Public/Private property and the contractor should bear all the loss/expenditure thereby involved.

#### **1.7 Safety Precautions And Measures To Be Observed During Execution Of Engineering Works**

- a) The contractor shall be fully responsible for ensuring safety at all times and shall bear the cost of all damages in cases of accidents/unusual occurrences resulting in damages to Railway property and passengers. Any breach of the safety conditions for precautions and measures as specified hereunder and/or elsewhere in the tender document by the contractor and/or his agents/representatives affecting the safety of movement of trains, engines, or other rolling stock of the Railway, shall constitute a breach of contract by the contractor leading to termination of contract for default on the part of the contractor including recovery of damages

- b) The works required to be done under traffic block shall be carried out only in the presence of Railway officials. The Railway supervisor shall certify safe conditions for passage of trains before resumption of traffic. The works to be done under traffic Block shall be carried out under the provision of banner flag and protection of engineering flagman
- c) Safe practices at all times and non infringement to moving trains shall be ensured. Road vehicles, material trolleys, dollys etc., which may have tendency to roll off towards the running lines shall be Checked by providing chains, locking arrangements, blocks etc. Site in-charge of the contractor shall be primarily responsible
- d) All equipment's like cranes, lifting jack etc., shall be tested, duly calibrated and certified prior to use at construction site. They shall also have specific indications conforming that the operators handling them are trained in the safety precautions near track.
- e) Construction workers at site shall be provided with personal safety gear like reflective vest, helmet, leather shoes, gloves, eye-wear etc., as approved as per construction industry standards. For persons working at pier top/girder level, temporary supports, hand railing etc., protection with help of ropes, slings and temporary railings shall be provided.
- f) All locations, where construction activity is in progress adjacent to existing railway lines, should be cordoned off with proper barricades. Barricades consisting of bamboo/signalling poles and supported horizontally by similar bamboo/signalling poles should be provided. These barricades should be provided at a distance of approximately 3.5m from the centre line of track or as directed by the Engineer-in-charge. All the barricades are to be painted or struck on with red luminous paint/strips at suitable intervals on the barricades. Barricade should be available at every stage of work as directed by the Engineer-in-charge and shall be maintained in perfect condition all the time.
- g) Road vehicles employed by the contractor should have the certificate for its road worthiness and each vehicle numbered and the license particulars maintained. Contractors should ensure that the drivers permitted by them to work on such road vehicles are identified, counselled, certified and are provided with photo Identity cards. Wherever the work requires the movement of road vehicle within a distance of 3.5 to 6m from the centre line of the nearest track, such work shall be done only in the presence of Railway's representative. The driver of the vehicle shall always face the track when reversing the vehicle and whenever he cannot face the track, for whatever reason, he shall be invariably assisted by a helper with a whistle who should guide him and ensure safety.
- h) The contractor shall execute a Bond undertaking to ply the road vehicles in a safe and satisfactory manner and strictly in accordance with the stipulations and other conditions specified by the Engineer and to engage and retain only the permit holder to be the contractor's agent in charge of the vehicle while driving or at rest. The person in charge of the vehicles and the attendants shall, at all times, be vigilant and on the lookout for signals from the lookout men, flagmen or other personnel available at site with a view to stop or regulate the road movement so as to ensure adequate margin of safety for

the timely passage of an approaching train or a Railway engine, without any delay or detention. The contractor shall also be bound by the provisions of this agreement to ply the road vehicles only with adequate margin of safety, well clear of the fixed structure profile of infringements, as stipulated in the rules made under the Indian Railways Act and to seek and be guided by the signals and other directions of any lookout men or other personnel retained for the purpose of ensuring safety and to ensure extra care and vigilance while turning, reversing or moving the road vehicles in any other manner at an inclination to the running railway track or the siding as the case may be. The contractor shall employ necessary look out men also at his own cost, irrespective of any other arrangement that railway may make in this regard

- i) All work sites shall be supervised by the contractor's representative and also a representative of the Railway Organisation. Whenever work of plying road vehicle within 6m zone is actually in progress, Look-out men should invariably be available. Lookout men will have to be provided by the contractor, from out of the list of persons who are authorised to carry out these duties. Authorisation will be issued to the individuals, by the representative of the Engineer-in-charge. Railway's supervisor will monitor the availability and alertness of the lookout men. In case of non-availability of lookout men, this Railway's supervisor shall stop further activities of plying of road vehicles. Even if no work is executed in the night, look-out men shall patrol the beat as identified by the representative of the construction organisation to ensure the safety of the running trains, especially from any infringement.
- j) Working alongside the track during night hours is normally prohibited. Such work can be done in the night only with the written permission of the Engineer-in-charge. Where night working is permitted, lighting of the work site as required should be done.
- k) The following activity of work shall be carried out under supervision of railway engineer or his nominated supervisor:
  - i) Excavation of foundation/Ground level near to Railway track.
  - ii) Concrete casting and/or masonry very close to Railway track.
  - iii) Erection of temporary structures near to running lines.
  - iv) Casting of structures like girder/slab over railway track.
  - v) Stage-Pre-stressing of girder when placed across Railway tracks properly supported.
  - vi) Launching of precast/pre-assembled girders across Railway track
  - vii) Any work of lifting, side shifting and slewing of girders over the Railway track.
  - viii) Dismantling of temporary structures, shutters, scaffolding, etc. Adjacent and above the Railway track.
  - ix) Any track work/P&C work on the running line or adjoining to the running line.
  - x) Platform/structures/FOB/building works adjacent or over the running lines.
- l) For carrying out above activities, the contractor's engineer shall furnish the construction programme in advance to railway Supervisor/Engineer. No such work should be taken up in absence of the supervising railway engineer.

**1.8 For carrying out ROB/RUB works, the following additional precautions should be taken:**

- a) All the records of Quality Assurance/Quality Control, testing of the materials and satisfactory completion of an activity shall be maintained at site by the contractor's Engineer and Supervising Engineers. On the basis of these records, Railways' Engineer shall do stage-wise clearance of the work at following stages:
- i) Completion of foundation
  - ii) Completion of substructure
  - iii) Completion of superstructure
- b) Without such stage clearance, the work in next stage of construction shall not be allowed by the Railway Supervisor, unless proper system of check and exercise is followed at the site.
- c) Normally, the high beam PSC girders are designed with wider top flange and shorter bottom flange with very high beam which makes the girder unsuitable during lowering, slewing and launching time.
- d) During launching of girders and subsequent adjustments for placement of bearings special attention and precautions are required at site to be followed rigorously without resorting to shortcut practices or leaving the work at site to untrained or inexperienced engineers. Normally, end diaphragms are not casted for the extreme both side girders. These shall to be casted min. 300 mm on both sides for all 'I' beam girders to provide temporary supports for ensuring stability.

Or,

For side adjustments and bearing placements below 'I' section girders, end brackets made of steel angles should be provided for all 'I' beams sequentially to avoid side tilting of individual girders. End brackets shall be removed only after placing girders on bearings and casting of diaphragms.

- e) During lowering, the jacks shall be operated duly keeping wooden packing of various thicknesses fixing the amount of lowering to the barest minimum, so that even if the jack fails, the wooden packing will take load and further stability of girder is not endangered.
- f) Temporary crib support staging shall be interlaced with clamps and angles. Adequate base width shall be maintained in proportionate to the height of stage, which is very essential for avoiding the along effect during launching of girders. During launching by RH girder method the movement of the PSC girders shall be controlled both from front and rear with winch mechanism having simultaneous operation, so that the speed of the launching is always under the control. Spare hydraulic jacks shall always be kept at side.
- g) Lowering of girder shall always be carried out at one end only. Further, other end should be adequately secured by wire ropes, end brackets, etc. Thereafter, the alternate process shall be continued.
- i) As far as possible launching of girders by temporary staging shall be avoided and launching by heavy capacity cranes, wherever feasible, shall be adopted.

- ii) Steel girder launcher if used for launching of PSC girders, should be pre-tested for the critical loading (likely to be encountered during actual launching) before deployment on the approaches regarding its strength as well as amount of permissible deflection using actual test PSC girder as a testing load. Connections at supports shall be inspected and certified. Prior to actual launching, it shall be adequately secured to the base support system on the pier cap
- h) The contractor will be supplying with necessary plans, specification, details of Special Conditions etc. for execution of work as required by the Railway. However, Contractor shall make his own detailed plans, working arrangements, etc., to make smoother and faster construction and get the same approved by the Engineer-in-charge at his own cost. For this purpose, he can contact the Office of Divisional Railway Managers (Works) , South Western Railway, \_\_\_\_\_.

**1.9 Safety Precautions At Work Site And Measures To Be Observed During Execution Of Engineering Works:**

- a) All precautions to ensure safety of workmen must be taken while unloading and leading the materials during execution of work. Traffic rules should be strictly followed and the contractor should indemnify the Railway against any claim due to accidents and unforeseen incidents.
- b) The contractor must ensure the safety of labourers engaged by him while crossing the track during the course of execution of work and the Railway will not be responsible for any injury sustained by the labourer or for any fatal accident. The contractor should bear all the loss and expenditure involved. Wherever necessary he should also provide necessary look out men.
- c) The work should be carried out without any interference to the normal working of the Railway track and structures. The contractor will be held responsible for any loss or damage or injury caused during the course of work to the labourer or to the public/private person or to the Railway/ Public/private property and the contractor should bear all the loss and expenditure involved.
- d) Wherever work is to be executed close to any running railway lines or roads or buildings or public passage, the Contractor shall ensure proper protection of public, railway/public property. He shall also ensure all special precautions as provided in this tender.

- e) The contractor shall be responsible for anti-larval work at his cost during progress of works as may be prescribed by the Engineer on the advice of the Railway or any Government Medical authority and where use of insecticides are involved, it shall be done in accordance with the provisions of the act and rules in this behalf at the cost of contractor, who shall also be solely responsible for any acts or omissions under the provision of the aforesaid rules.
  - f) The Contractor shall ensure that necessary sanitary facilities are provided by the Contractor for their labour in terms of Clause 59(4) of the General Conditions of Contract, and where they fail to do so notice shall be given to the Contractor that the same will be provided by the Railway at their cost and recovery shall be made from their bills.
  - g) Where contractor avails existing sanitary arrangements of the Railways charges as decided by Railway from time to time is recoverable from the contractor.
- 1.10 The contractor shall arrange to obtain permission direct from the State Government or local authorities concerned for using Forest, PWD or Panchayat roads. The rates tendered shall be inclusive of any cess, tax or any other charges payable to the authorities concerned.
- 1.11 The contractor shall make his own arrangements for obtaining the license for any explosives, as may be necessary, for procurement, transportation, storage and use of the same. All possible assistance will be given by the Railway, should there be any difficulties in obtaining the license etc. However, any failure shall not form the basis for any claim by the contractor against the Railway or for additional payment for the work.
- 1.12 In case of use of explosives for blasting the contractor shall strictly abide by the Indian Explosive Act, the Rules and Regulations framed there under in carrying out the work, shall observe all the provisions of the Indian Mine Act and the metalliferous mines regulations and rules there under as well as any other Act and Rules, as may be enacted and laid down by the State and Central Government from time to time, for such work.
- 1.13 The contractor will be held responsible for any loss/damage/injury caused during explosion to the labourers or to the public/private persons or to Railway/Public/Private property and the contractor should bear all the loss/expenditure thereby involved.
- 1.14 The contractor shall be fully responsible for ensuring safety at all times and shall bear the cost of all damages in cases of accidents/unusual occurrences resulting in damages to Railway property and passengers. Any breach of the safety conditions for precautions and measures as specified hereunder and/or elsewhere in the tender document by the contractor and/or his agents/representatives affecting the safety of movement of trains, engines, or other rolling stock of the Railway, shall constitute a breach of contract by the contractor leading to termination of contract for default on the part of the contractor including recovery of damages.
- 1.15 The works required to be done under traffic block shall be carried out only in the presence of Railway officials. The Railway supervisor shall certify safe conditions for



passage of trains before resumption of traffic. The works to be done under traffic Block shall be carried out under the provision of banner flag and protection of engineering flagman.

- 1.16 Safe practices at all times and non-infringement to moving trains shall be ensured. Road vehicles, material trolleys, dollies etc., which may have tendency to roll off towards the running lines shall be checked by providing chains, locking arrangements, blocks etc. Site in-charge of the contractor shall be primarily responsible.
- 1.17 All equipment like cranes, lifting jack etc., shall be tested, duly calibrated and certified prior to use at construction site. They shall also have specific indications conforming that the operators handling them are trained in the safety precautions near track.
- 1.18 Construction workers at site shall be provided with personal safety gear like reflective vest, helmet, leather shoes, gloves, eye-wear etc., as approved as per construction industry standards. For persons working at pier top/girder level, temporary supports, hand railing etc., protection with help of ropes, slings and temporary railings shall be provided.
- 1.19 All locations, where construction activity is in progress adjacent to existing railway lines, should be cordoned off with proper barricades. Barricades consisting of bamboo/signalling poles and supported horizontally by similar bamboo/signalling poles should be provided. These barricades should be provided at a distance of approximately 3.5m from the centre line of track or as directed by the Engineer-in-charge. All the barricades are to be painted or struck on with red luminous paint/strips at suitable intervals on the barricades. Barricade should be available at every stage of work as directed by the Engineer-in-charge and shall be maintained in perfect condition all the time.
- 1.20 Road vehicles employed by the contractor should have the certificate for its road worthiness and each vehicle numbered and the license particulars maintained. Contractors should ensure that the drivers permitted by them to work on such road vehicles are identified, counselled, certified and are provided with photo Identity cards. Wherever the work requires the movement of road vehicle within a distance of 3.5 to 6m from the centre line of the nearest track, such work shall be done only in the presence of Railway's representative. The driver of the vehicle shall always face the track when reversing the vehicle and whenever he cannot face the track, for whatever reason, he shall be invariably assisted by a helper with a whistle who should guide him and ensure safety.
- 1.21 The contractor shall execute a Bond undertaking to ply the road vehicles in a safe and satisfactory manner and strictly in accordance with the stipulations and other conditions specified by the Engineer and to engage and retain only the permit holder to be the contractor's agent in charge of the vehicle while driving or at rest. The person in charge of the vehicles and the attendants shall, at all times, be vigilant and on the lookout for signals from the lookout men, flagmen or other personnel available at site with a view to stop or regulate the road movement so as to ensure adequate margin of safety for the timely passage of an approaching train or a Railway engine, without any delay or detention. The contractor shall also be bound by the provisions of this agreement to ply the road vehicles only with adequate margin of safety, well clear of the fixed structure

profile of infringements, as stipulated in the rules made under the Indian Railways Act and to seek and be guided by the signals and other directions of any lookout men or other personnel retained for the purpose of ensuring safety and to ensure extra care and vigilance while turning, reversing or moving the road vehicles in any other manner at an inclination to the running railway track or the siding as the case may be. The contractor shall employ necessary look out men also at his own cost, irrespective of any other arrangement that railway may make in this regard.

- 1.22 All work sites shall be supervised by the contractor's representative and also a representative of the Railway Organisation. Whenever work of plying road vehicle within 6m zone is actually in progress, Look-out men should invariably be available. Lookout men will have to be provided by the contractor, from out of the list of persons who are authorised to carry out these duties. Authorisation will be issued to the individuals, by the representative of the Engineer-in-charge. Railway's supervisor will monitor the availability and alertness of the lookout men. In case of non-availability of lookout men, this Railway's supervisor shall stop further activities of plying of road vehicles. Even if no work is executed in the night, look-out men shall patrol the beat as identified by the representative of the construction organisation to ensure the safety of the running trains, especially from any infringement.
- 1.23 Working alongside the track during night hours is normally prohibited. Such work can be done in the night only with the written permission of the Engineer-in-charge. Where night working is permitted, lighting of the work site as required should be done.
- 1.24 The following activity of work shall be carried out under supervision of railway engineer or his nominated supervisor:
- a) Excavation of foundation/Ground level near to Railway track.
  - b) Concrete casting and/or masonry very close to Railway track.
  - c) Erection of temporary structures near to running lines.
  - d) Casting of structures like girder/slab over railway track.
  - e) Stage-Pre-stressing of girder when placed across Railway tracks properly supported.
  - f) Launching of precast/pre-assembled girders across Railway track
  - g) Any work of lifting, side shifting and slewing of girders over the Railway track.
  - h) Dismantling of temporary structures, shutters, scaffolding, etc. Adjacent and above the Railway track.
  - i) Any track work/P&C work on the running line or adjoining to the running line.
  - j) Platform/structures/FOB/building works adjacent or over the running lines.
- 1.25 For carrying out above activities, the contractor's engineer shall furnish the construction programme in advance to railway Supervisor/Engineer. No such work should be taken up in absence of the supervising railway engineer.

**1.26 Underground Signaling, Electrical & Telecommunications Cable:**

- a) During the course of execution of work if any underground/overhead or any other cable/OFC are damaged by the contractor or his labour etc., purely due to the default of the contractor, the cost of damage, as decided by the Railway Administration will be borne by the contractor. The default of the contractor will be decided as per the extant instructions in force.
- b) The contractor shall take special precautions as per guidelines of Railway while carrying out works at location where there is likelihood of any underground cables/OFC etc., and the work shall not be carried out without the presence of unauthorised Railway Supervisor/staff deputed to supervise the work.
- c) Before taking up any digging work, it is the responsibility of the contractor to get cable layout plan from Engineer-in-charge of the work and arrange to demarcate the same at the site.

**2. HEALTH AND ENVIRONMENT**

**2.1 Special condition for disposal of construction and demolition waste:**

- a) In exercise of the powers conferred by sections 6, 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Municipal Solid Wastes (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government notified the rules for Management of Construction and Demolition Waste by publishing in the Gazette of India Part-II Section 3 Sub-section-ii dt.29.03.2016. Being waste generator, rules indicated under Para 4 and as a service provider rules under Para 5 are to be followed by Indian Railways through agencies and same are reproduced as follows and any subsequent amendment thereof through notification by Government of India will be applicable in terms of Law of Governing of Contract.
  - i) The tenderer shall remove all construction and demolition waste and clean the area every day, if possible, or depending upon the duration of the work, the quantity and type of waste generated, appropriate storage and collection, a reasonable timeframe shall be worked out in consultation with the concerned local authority.
  - ii) The tender shall prima-facie be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated, as directed or notified by the concerned local authority in consonance with rules.
  - iii) The tenderer shall ensure that other waste (such as solid waste) does not get mixed with this waste and is stored and disposed separately.
  - iv) The tenderer who generate more than 20 tons or more in one day or 300 tons per project in a month shall segregate the waste into four streams such as concrete, soil, steel, wood and plastics, bricks and mortar and shall submit waste management plan and get appropriate approvals from the local authority before starting construction or demolition or remodeling work and keep the concerned authorities informed regarding the relevant activities from the planning stage to the implementation stage and this should be on project to project basis.

- v) The tenderer shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre so made by the local body or handover it to the authorized processing facilities of construction and demolition waste; and ensure that there is no littering or deposition of construction and demolition waste so as to prevent obstruction to the traffic or the public or drains.
- vi) The tenderer shall pay relevant charges for collection, transportation, processing and disposal as notified by the concerned authorities; Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month shall have to pay for the processing and disposal of construction and demolition waste generated by them, apart from the payment for storage, collection and transportation. The rate shall be fixed by the concerned local authority or any other authority designated by the State Government.
- vii) In case of the tender have no logistics support to carry out the work, they shall tie up with the authorized agencies for removal of construction and demolition waste and pay the relevant charges as notified by the local authority.

Note: Tenderer is responsible for penal action imposed by responsible authority towards non implementation of above provisions.

## **2.2 Removal of Improper Work and Materials: The Engineer or the Engineer's Representative shall be entitled to order from time to time:**

- a. The removal from the site, within the time specified in the order, of any materials which in his opinion are not in accordance with the specifications or drawings.
- b. The substitution of proper and suitable materials, and
- c. the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefor, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order, the Railway shall be entitled to rescind the contract under Clause 62 of these conditions.
- d. The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.