

## ***SUB CLAUSE 105.3 SCOPE OF THE WORK***

**Sub-Clause 105.3: Delete the text of Clause 105.3 and substitute the following**

**The Quality Assurance Plan shall cover the following items:**

- i) Names, roles, responsibilities and authority of principles and key Personnel Identification of the Contractor's staff responsible for overseeing each major activity;**

- ii) The Contractor's detailed method statements and construction procedures for each major activity whether directly controlled or subcontracted including:
- Plant and materials to be used, *safety measures*, the requirement for skilled labour and/or special supervision and working space;
  - Delivering, handling and storage of materials;
  - *Environmental control in respect of pollution, noise, dust, temperature, working hours, traffic control etc;*
  - Hold points i.e. the stages at which checks are necessary before continuing;
  - Work instructions, quality control procedures, compliance testing, inspection procedures and work acceptance procedures.
  - *Sanitation and living condition for workers*
  - *Selection of site for Hot Mix Point*

## ***CLAUSE 112 ARRANGEMENTS FOR TRAFFIC DURING CONSTRUCTION***

### ***Sub-Clause 112.1 General***

**Delete the last sentence and add the following:**

**“Two weeks before undertaking work which would involve any obstruction whatsoever to traffic the Contractor shall submit, for the Engineer’s approval, a Traffic Control Plan; and The plan shall include:**

- i) Drawings for any temporary diversions away from the existing carriageway**
- ii) Details of the traffic management measures to be used where traffic will use part of the existing carriageway in accordance with Sub-Clause 112.2;**

**These shall include the traffic arrangements proposed to be in place after the cessation of work each day.**

- ❖ The Traffic Control Plan shall conform to the typical arrangements shown in the road works drawings, or as otherwise directed by the Engineer. Special**
- ❖ Consideration shall be given in the preparation of the Traffic Control Plan to the safety of pedestrians and workers and delineation of the roadway at night.**
- ❖ The Engineer's approval of the Traffic Control Plan, including any temporary**
- ❖ Diversions, shall be obtained by the Contractor before any work is commenced.**
- ❖ The Contractor shall appoint a Safety Officer who shall have day-to-day**

- ❖ responsibility for implementing and maintaining all safety measures.
- ❖ The entire Contractor's staff shall wear high-visibility orange or yellow jackets
- ❖ or waistcoats while at the construction site.
- ❖ Persistent breaches of the safety provisions by the Contractor and his employees shall constitute a sufficient cause for action.

## **Sub-Clause 112.2 Passage of Traffic along a part of the Existing Carriageway under Improvement**

This clause shall be read as under:

For widening and strengthening of the existing carriageway where part width of the existing carriageway is proposed to be used for passage of traffic, the following requirements must be respected:

- ❖ Normally, a 7m roadway (absolute minimum 5.5m) for two-way traffic shall remain open at all times, but, where there is not possible to achieve, oneway working on a 3.7m lane (absolute minimum 3.25m) with traffic control shall be used.
- ❖ Where necessary to achieve the above widths a paved shoulder of at least 1.5m width shall be provided on the side of the existing road on which work is not in progress; the treatment to paved shoulders shall consist of providing 200 mm thick granular base course grading-I Table 400-1 as per Clause 401.

- ❖ The surface used by the through traffic shall at all times be a firm all weather compacted surface free of pot holes and other defects.
- ❖ The maximum continuous length over which construction under traffic may take place shall be limited to 500m.
- ❖ Construction activity shall be restricted to only one side of the existing road.
- ❖ In case of eccentric widening of existing two lanes to four lanes, the additional two lanes shall be constructed first up to the stage of Bituminous Concrete for a minimum length of 2 km. and traffic diverted to it and only thereafter the required treatment to the existing carriageway including construction of median shall be taken up.

## **Sub-Clause 112.4 Traffic Safety and Control**

**This clause shall read as under:**

**The Contractor shall take all necessary measures for the safety of traffic during construction, and provide, erect and maintain such barricades, signs, delineators, markings, lights and traffic controllers as are necessary for the information and protection of all road users, including pedestrians and cyclists, passing through the section under improvement. The Contractor shall be fully responsible for the adequate safety of all site operations and methods of construction.**

- ❖ The design and layout of all traffic management devices shall be in accordance with the roadwork's drawings and the Traffic Control Plan, or as otherwise directed by the Engineer.**
- ❖ All signs, barricades, and delineators shall be reflectorised.**



- ❖ Regulatory, Warning and Informatory signs shall conform to IRC 67-2001 with sign faces made from retro-reflective sheeting of High intensity grade or Engineering grade. Barricades, delineators and any other markers shall be made retro-reflective using either sheeting or plastic corner-cube reflectors.
- ❖ At the points where traffic is to deviate from its normal path (whether on temporary diversion or part width of the carriageway) the route to be taken by the diverted traffic shall be clearly marked with delineators and appropriate signs.
- ❖ At night the route shall also be delineated with lanterns or other suitable light sources.
- ❖ One-way traffic operation shall be established whenever the traffic is to use part of the carriageway where there is insufficient width for two-way traffic. This shall be done with temporary traffic signals, or traffic controllers using STOP /GO signs, as per the drawings.

- ❖ **At night the STOP / GO signs shall be illuminated.**
- ❖ **Warning signs shall be erected on all approaches to the works site in accordance with the road works drawings and the Traffic Control Plan, or as otherwise directed by the Engineer.**
- ❖ **At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock to and from side roads and property accesses connecting to the roadway. Work which affects the use of side roads and existing accesses shall not be undertaken without providing adequate provisions to the satisfaction of the Engineer.**
- ❖ ***Persistent breaches of the safety provisions by the Contractor and his employees shall constitute a sufficient cause for action.***

## **Sub-Clause 112.5 Maintenance of Diversions and Traffic Control Devices**

**This clause shall read as under:**

- ❖ **The Contractor shall at all times maintain the signs, lights, barricades and other traffic control devices in the correct position as per the drawings and the Traffic Control Plan, or as otherwise directed by the Engineer.**
- ❖ **All signs, lights, barricades and other traffic control devices, as well as the riding surface of diversions, shall be maintained in a satisfactory condition.**
- ❖ **The Contractor shall be responsible for replacing or repairing all signs, lights, barricades, and other traffic control devices that are lost, stolen, damaged or defaced.**
- ❖ **Any temporary roadway shall be kept free of dust by frequent applications of water if necessary.**

- ❖ Upon completion of the Works all temporary roads, temporary bridges, signs, lights, barriers, other traffic control devices and other equipment shall be completely removed unless otherwise approved in writing by the Engineer.
- ❖ If in the opinion of the Engineer the Contractor has failed to properly repair or maintain existing or temporary roadways, or provide sufficient or appropriate warning signs, lights, barricades, traffic control, etc. he shall instruct the Contractor, in writing, to provide such signs and take such actions as he considers appropriate for protection of traffic, pedestrians, employees and the works.
- ❖ If the Contractor fails to respond within the time given by the Engineer, the Engineer may suspend works which interfere with traffic until such time as the Contractor provides sufficient signs etc. as the Engineer has directed, or the Engineer may arrange to provide the required signs etc. at cost to the Contractor, these costs being deducted from monies due to the Contractor under the Contract.

*The sole responsibility for the safety and adequacy of the methods adopted by the Contractor shall rest on the Contractor irrespective of any approval given by the Engineer.*

## **Sub-Clause 305.2.2.2 Borrow Materials**

**Para 1 of this Clause shall read as under:**

No borrow area shall be made available by the Employer for this work. The arrangement for the source of supply of the material for embankment and sub-grade as well as compliance to the different environmental requirements in respect of excavation and borrow areas as stipulated, from time to time, by the Ministry of Environmental and Forest, Government of India and the local bodies, as applicable, shall be the sole responsibility of the Contractor.

## *Clause 306.4 Measurements for Payment*

**Substitute Clause 306.4 as follows:**

All temporary sedimentation and pollution control works, which are not provided in the Bill of Quantities, shall be deemed as incidental to the earthwork and other items of work and as such no separate payment shall be made for the same.

## *Clause 406.4 Opening to Traffic*

**The Clause shall be read as follows:**

No vehicular traffic of any kind shall be allowed on the finished wet mix macadam surface.

## **Clause 1101.4 Add the following as sub clause**

**The scope of work shall comprise of the following:**

- ❖ **Providing all materials including concrete, temporary and permanent casing as required, labour and equipment excluding reinforcing steel**
- ❖ **which shall be measured and paid separately for installation of bored cast-in-situ piles.**
- ❖ **Initial and routine testing of piles.**
- ❖ **Integrity testing of piles as per provisions of bid documents.**
- ❖ *Provision of access to movement of equipment, barricading where necessary, pollution control measures including measures to control noise to minimum acceptable levels and site clearance.*

**Clause 2813 Dismantling of Existing Splayed Wing Wall For Construction of Adjacent 2 Lane Bridge a) Brick Course b) Rubble Masonry c) Concrete**

- ❖ Existing Brick / course rubble masonry / concrete wing wall shall be dismantled for construction of adjacent 2 Lane Bridge as shown in drawings or as directed by Engineer.
- ❖ The work shall be executed in accordance with Specifications section 200 clause 202 .Only portions which interfere with the construction of wing walls/return/median wall of adjacent 2-lane bridge shall be dismantled.
- ❖ The decision of the Engineer regarding extent of dismantling shall be final.
- ❖ During dismantling all precautions shall be taken to prevent failure of retained earth of the approaches.



- ❖ *Dismantled material shall not be stacked on the deck nor shall it be thrown below the bridge. It shall be neatly piled at points designated by the Engineer with all lifts and leads. Materials, which can be used or auctioned, shall be stored in neat piles at locations designated by Engineer with all lifts and leads.*
- ❖ *Goggles and gas masks shall be worn at the time of dismantling. Leather gloves shall be worn by the workers. Screens made of G.I. Sheets shall be placed wherever necessary to prevent the flying pieces from injuring the workers.*
- ❖ **Damage caused to any component of the bridge structure during removal operations shall be restored by the Contractor at his cost.**

## Clause 4.8 Safety Procedures

The Contractor shall:

- ❖ comply with all applicable safety regulations,
- ❖ take care for the safety of all persons entitled to be on the Site,
- ❖ use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- ❖ provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Employer's Taking Over, and
- ❖ provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

## Clause 4.14 Avoidance of Interference

**The Contractor shall not interfere unnecessarily or improperly with:**

- ❖ *the convenience of the public, or*
- ❖ *the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.*
- ❖ **The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.**

## Clause 4.15 Access Route

The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes. Except as otherwise stated in these Conditions:

- ❖ *the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;*
- ❖ *the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;*

- ❖ the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route;
- ❖ the Employer does not guarantee the suitability or availability of particular access routes; and Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

## **Clause 4.18 Protection of the Environment**

- ❖ *The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.*
- ❖ *The contractor shall adhere to management measures prescribed in the Environment Management Plan to avoid/minimise/mitigate adverse impacts on environment.*
- ❖ *The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.*

## Clause 4.24 Fossils

- ❖ *All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer.*
- ❖ *The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.*
- ❖ *The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:*

- ❖ *an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion and payment of any such Cost, which shall be included in the Contract Price.*
- ❖ *After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.*



## Clause 6 Staff and Labour

### ➤ 6.1 Engagement of Staff and Labour

- ❖ Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.
- ❖ The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.

## ➤ 6.2 Rates of Wages and Conditions of Labour

- ❖ The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out.
- ❖ If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.
- ❖ The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances, and any benefits as are subject to taxes under the Laws of the Country for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

## ➤ 6.4 Labour Laws

- ❖ The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- ❖ The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

## ➤ 6.6 Facilities for Staff and Labour

- ❖ Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel.
- ❖ The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.
- ❖ The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

## ➤ 6.7 Health and Safety

- ❖ **The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel.**
- ❖ **In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.**
- ❖ **The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents.**

- ❖ Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.
- ❖ The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.
- ❖ *HIV-AIDS Prevention*  
*The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.*

## The Contractor shall throughout the contract (including the Defects Notification Period):

- ❖ *conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD) or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular;*
- ❖ *provide male or female condoms for all Site staff and labor as appropriate; and*
- ❖ *provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.*

**The Contractor shall include in the program to be submitted for the execution of the Works under Sub-Clause 8.3**

*an alleviation program for Site staff and labour and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate :*

- ❖ **when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification.**
- ❖ **For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed.**
- ❖ **The program shall also include provision of a detailed cost estimate with supporting documentation.**
- ❖ **Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.**



➤ **6.13 Supply of Foodstuffs**

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

➤ **6.14 Supply of Water**

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

➤ **6.15 Measures against Insect and Pest Nuisance**

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

➤ **6.16 Alcoholic Liquor or Drugs**

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal thereto by Contractor's Personnel.

➤ **6.17 Arms and Ammunition**

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

➤ **6.20 Prohibition of Forced or Compulsory Labour**

The contractor shall not employ "forced or compulsory labour" in any Form. "Forced or compulsory labour" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

➤ **6.21 Prohibition of Harmful Child Labour**

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

➤ **6.22 Employment Records of Workers**

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and shall be available for inspection by the Engineer during normal working hours. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

➤ **4.8 Safety Procedures**

Add the following sub paragraph after sub paragraph (e) in Sub-Clause 4.8:

Ensure that all lights provided by the Contractor shall be screened so as not to interfere with any signal light on the railways or with any traffic or signal lights of any local or other authority.

➤ **4.18 Protection of the Environment**

Add the following paragraphs at the end of Sub-Clause 4.18:

*The Contractor shall ensure that during continuance of the contract, the Contractor and his Sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.*

Salient features of some of the major laws that are applicable are given below:

- ✓ *The Water (Prevention and Control of Pollution) Act, 1974: This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water.*
- ✓ *Pollution means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.*

- ✓ ***The Air (Prevention and Control of Pollution) Act, 1981:*** This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.
- ✓ ***The Environment (Protection) Act, 1986:*** This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

- ✓ *The Public Liability Insurance Act, 1991: This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.*
- ✓ *The Contractor shall take all reasonable steps to implement the environmental mitigation measures provided for in the Appendix in Part 3 : Section VIII – Part C - Environmental Management Action Plan, in accordance with objective, procedures, and other provisions set forth therein and shall not take any action which would prevent or interfere with such implementation. Further, he shall adhere to all environmental requirements of the contract. The reference to above mentioned Acts is only indicative. The Contractor is expected to acquaint with all the latest applicable Acts.*



## ➤ 6.4 Labour Laws

Add the following after the 2nd paragraph in Sub-Clause 6.4

*'The Contractor and his Sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.*

*The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for nonobservance of the provisions stipulated in the notifications / byelaws / acts / rules / regulations including amendments, if any, on the part of the Contractor, the Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.*

➤ **6.22 Employment Records of Workers**

**Add the following paragraph at the end of Sub-Clause 6.22:**

***‘The Contractor shall, if required by the Engineer, provide a return in detail of the employment of labour, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour, employed by the Contractor on the Site, from time to time.’***

## **ANNEXURE – A1**

### **Salient Features of Some Major Labour Laws Applicable to Establishments Engaged in Construction of Civil Works**

#### ***(i) Workmen Compensation Act, 1923***

*The Act provides for compensation in case of injury by accident arising out of and during the course of employment.*

#### ***(ii) Payment of Gratuity Act, 1972***

*Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.*

### ***(iii) Employees' PF and Miscellaneous Provisions Act, 1952***

*The Act provides for monthly contributions by the employer plus workers @10 % or 8.33 %.*

*The benefits payable under the Act are:*

- Pension or family pension on retirement or death as the case may be.*
- Deposit linked insurance on the death in harness of the worker.*
- Payment of PF accumulation on retirement/death etc.*

### ***(iv) Maternity Benefit Act, 1951***

*The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.*

### ***(v) Contract Labour (Regulation and Abolition) Act, 1970***

*The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided by the Principal Employer by Law. The principal employer is required to take Certificate of Registration and the Contractor is required to take a License from the designated Officer.*

The Act is applicable to the establishments or Contractor of principal employer if they employ 20 or more contract labour.

### ***(vi) Minimum Wages Act, 1948***

The employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment.

Construction of Buildings, Roads, Runways are scheduled employment.

### ***(vii) Payment of Wages Act, 1936***

It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

### ***(viii) Equal Remuneration Act, 1979***

*The Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees in the matters of transfers, training and promotions etc.*

### ***(ix) Payment of Bonus Act, 1965***

*The Act is applicable to all establishments employing 20 or more workmen. The Act provides for payments of annual bonus subject to a minimum of 8.33 % of wages and maximum of 20 % of wages to employees drawing Rs. 3,500/- per month or less. The bonus to be paid to employees getting Rs. 2,500/- per month or above up to Rs.3,500/- per month shall be worked out by taking wages as Rs.2,500/- per month only. The Act does not apply to certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of the Act.*

### ***(x) Industrial Disputes Act, 1947***

*The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.*

### ***(xi) Industrial Employment (Standing Orders) Act, 1946***

*It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.*

### ***(xii) Trade Unions Act, 1926***

*The Act lays down the procedure for registration of trade unions of workmen and employees. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities.*

### ***(xiii) Child Labour (Prohibition and Regulation) Act, 1986***

*The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labour is prohibited in Building and Construction Industry.*

### ***(xiv) Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979***

*The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-state migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.*



### ***(xv) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996***

*All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under this Act. All such establishments are required to pay Cess at rate not exceeding 2% of the cost of construction as may be notified by the Government. The employer of the establishment is required to provide safety measures at the Building or Construction work and other welfare measures, such as Canteens, First-aid facilities, Ambulance, Housing accommodation for Workers near the workplace etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.*

### ***(xvi) The Factories Act, 1948***

*The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.*

### ***(xvii) The Apprentices Act, 1961***

*The Contractor shall duly comply with the provisions of the Apprentices Act, 1961, the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so, he shall be subject to all liabilities and penalties provided by the said Act and the said Rules. 'The Contractor shall, if required by the Engineer, provide a return in detail of the employment of labour, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour, employed by the Contractor on the Site, from time to time.'*

## **ANNEXURE – A2**

### **Safety & Welfare Provisions for labour to be employed by the Contractor**

*All necessary personal safety equipment as considered adequate by the Engineer shall be available for use of persons employed on the Site and maintained in a condition suitable for immediate use; and the Contractor shall take adequate steps to ensure proper use of such equipment by those concerned.*

## 1. Safety Provisions

The Contractor shall comply with all the precautions as required for the safety of the workmen.

- a) *All workmen at site shall be provided with safety helmets and yellow/orange jackets. Workmen required on site during night hours shall be provided with fluorescent yellow jackets with reflective lopes.*
- b) *Workers employed on mixing asphaltic materials, cement, lime mortars, concrete etc. shall be provided with protective footwear, protective goggles.*
- c) *Those engaged in handling any material, which is injurious to the eyes, shall be provided with protective goggles.*
- d) *Those engaged in welding works shall be provided with welder's protective eye-shield.*
- e) *Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.*

- f) Suitable scaffolds shall be provided for workmen for all work that cannot safely be done from the ground, or from solid construction except for such short period work as can be done safely from ladders. When a ladder is used, an extra labourer shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable foot-holds and hand-holds shall be provided on the ladder, which shall be given an inclination not steeper than 1/4 to 1.*
- g) Scaffolding or staging more than 3.25 metres above the ground or floor, swung or suspended from an overhead support or erected with stationary support, shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 metre high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the support or structure.*

- h) Working platforms, gangways, and stairways shall be so constructed that they do not sag unduly or unequally, and if the height of any platform or gangway or stairway is more than 3.25 metres above ground level or floor level, it shall have closely spaced boards, have adequate width and be suitably provided with guard rails as described in (ii) above.*
- i) Every opening in the floor of a structure or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of one metre.*
- j) Safe means of access and egress shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 metres in length. The width between side rails in a rung ladder shall in no case be less than 30 cm for ladders up to and including 3 metres in length. For longer ladders the width shall be increased at least 6 mm for each additional 30 cm of length. Spacing of steps shall be uniform and shall not exceed 30 cm.*

- k) Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect the public from accidents and shall be bound to bear the expenses of defending every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person.*
- l) Excavation and Trenching: All trenches, 1.5 metres or more in depth, shall at all times be supplied with at least one ladder for each 20 metres in length or fraction thereof.*

*Ladders shall be extended from the bottom of the trench to at least 1 metre above the surface of the ground. The sides of a trench, which is 1.5 metres or more in depth shall be stepped back to provide a suitable slope, or be securely held by timber bracing so as to avoid the danger of side collapse. Excavated material shall not be placed within 1.5 metres of the edge of any trench or half the depth of the trench, whichever is more.*

*Excavation shall be made from the top to the bottom. Under no circumstances shall undermining or undercutting be done.*

- m) When workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that manhole covers are open and manholes are ventilated at least for an hour before workers are allowed to go into them. Manholes so open shall be cordoned off with suitable railing and provide warning signals or boards to prevent accidents to the public.*



- n) Demolition: Before any demolition work is commenced and also during the process of the work:**
- (i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.*
  - (ii) No electric cable or apparatus, which is liable to be a source of danger other than a cable or apparatus used by operators, shall remain electrically charged:*
  - (iii) All practical steps shall be taken to prevent danger to persons employed by the Employer, from risk of fire or explosion, or flooding. No floor, roof or other part of a building shall be so overloaded with debris or materials as to render it unsafe.*
- o) When work is performed near any place where there is risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt first aid treatment of all injuries likely to be sustained during the course of the work.**

- p) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following:
- (i) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good working order be regularly inspected and properly maintained.*
  - (ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from defects.*
  - (iii) For every hoisting machine and every chain hook, shackle, swivel and pulley block used in hoisting, lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machine or a variable safe working load, each safe working load and conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to in the paragraph above shall be loaded beyond safe working load except for the purpose of testing.*

- q) Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards; hoisting appliances shall be provided with such means as will reduce the risk of accident during descent of load to the minimum. Adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised, insulating mats, working apparel such as gloves, sleeves and boots, as may be necessary, shall be provided. Workers shall not wear any rings, watches and carry keys or other material which are good conductors of electricity.*
- r) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.*
- s) These safety provisions shall be brought to the notice of all concerned by displaying on a notice board at a prominent place at the work location. Persons responsible for ensuring compliance with the Safety Code shall be named therein by the Contractor.*

- t) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the Engineer or his Representative.*
- u) Notwithstanding anything contained in condition (i) to (xv) above, the Contractor shall remain liable to comply with the provisions of all acts, rules, regulations and bylaws for the time being in force in India and applicable in this matter.*

***The Contractor shall be responsible for observance, by his sub-contractors, of the foregoing provisions.***

## 2. Labour Welfare Provisions

### a) First Aid:

*At every workplace, there shall be maintained, in a readily accessible place, first aid appliances including an adequate supply of sterilised dressings and sterilised cotton wool as prescribed in the Factory Rules of the State in which the work is carried on. The appliances shall be kept in good order and, in large work places; these shall be placed under the charge of a responsible person who shall be readily available during working hours.*

### b) Accommodation for Labour:

*The Contractor shall during the progress of the work provide, erect and maintain necessary temporary living accommodation and ancillary facilities for labour at his own expense to standards and scales approved by the Engineer.*

**c) Drinking Water:**

*In every workplace, there shall be provided and maintained at suitable places easily accessible to labour, a sufficient supply of cold water fit for drinking.*

*Where drinking water is obtained from an intermittent public water supply each workplace shall be provided with storage tanks where drinking water shall be stored.*

*Every water supply storage shall be at a distance of not less than 15 metres from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well, which is within such proximity of any latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door, which shall be dust proof and waterproof.*

*A reliable pump shall be fitted to each covered well. The trap door shall be kept locked and opened only for cleaning or inspection, which shall be done at least once a month.*

**d) Washing and Bathing Places:**

*Adequate washing and bathing places shall be provided separately for men and women. Such places shall be kept in clean and drained condition.*

**e) Scale of Accommodation in Latrines and Urinals:**

*There shall be provided within the precincts of every workplace, latrines and urinals in an accessible place, and the accommodation, separately for each for these, shall not be less than at the following scale:*

- Where number of persons does not exceed 50 number of seats to be 2*
- Where number of persons exceeds 50 but does not exceed 100 number of seats to be 3*
- For additional persons per 100 or part thereof number of seats to be 3*

*In particular cases, the Engineer shall have the power to increase the requirement, wherever necessary.*

**f) Latrines and Urinals:**

*Except in workplaces provided with water-flushed latrines connected with a water borne sewage system, all latrines shall be provided with dry-earth system (receptacles) which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. Receptacles shall be tarred inside and outside at least once a year.*

*If women are employed, separate latrines and urinals, screened from those for men and marked in the vernacular in conspicuous letters "For women only", shall be provided.*

*Those for men shall be similarly marked "For men only". A poster showing the figure of a man and a woman shall also be exhibited at the entrance to latrines for each sex.*

*There shall be adequate supply of water, close to latrines and urinals.*



**g) Construction of Latrines:**

*Inside walls shall be constructed of masonry or other non-absorbent material and shall be cement- washed inside and outside at least once a year. The dates of cement washing shall be noted in a register maintained for the purpose and kept available for inspection.*

*Latrines shall have at least a thatched roof.*

**h) Disposal of Excreta:**

*Unless otherwise arranged for by the local sanitary authority, arrangement for proper disposal of excreta by incineration at the workplace shall be made by means of a suitable incinerator approved by the local medical health and municipal or cantonment authorities.*

*Alternatively, excreta may be disposed of by putting a layer of night soils at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn into manure).*

*The Contractor shall, at his own expense, carry out all instructions issued to him by the Engineer to effect proper disposal of soil and other conservancy work in respect of Contractor's work-purpose or employees on the site.*

*The Contractor shall be responsible for payment of any charges, which may be levied by municipal or cantonment authority for execution of such work on his behalf.*

***i) Provisions of shelters during rest:***

*At every workplace, there shall be provided, free of cost, four suitable sheds, two for meals and two others for rest, separately for use of men and women labour. The height of each shelter shall not be less than 3 metres from floor level to lowest part of roof. Sheds shall be kept clean and the space provided shall be on the basis of at least 0.5 sq m per head.*

**j) Crèches:**

*At a place where women are ordinarily employed, there shall be provided at least one hut for use of children under the age of 6 years belonging to such women. Huts shall not be constructed to a standard lower than that of thatched roof, mud floor and wall with wooden planks spread over mud floor and covered with matting.*

*Huts shall be provided with suitable and sufficient openings, for light and ventilation.*

*There shall be adequate provision of sweepers to keep the places clean. There shall be a maidservant in attendance. Sanitary utensils shall be provided to the satisfaction of local medical, health and municipal or cantonment authorities. Use of huts shall be restricted to children, their attendants and mothers of children.*

**k) Canteen:**

*A cooked food canteen on a moderate scale shall be provided for the benefit of workers wherever it is considered necessary.*

- 1) Planning, sitting and erection of the above mentioned structures shall be approved by the Engineer or his Representative and the whole of such temporary accommodation shall at all times during the progress of the Works be kept tidy and in a clean and sanitary condition to the satisfaction of the Engineer or his Representative and at the Contractor's expense.*

*The Contractor shall conform generally to sanitary requirements of local medical, health and municipal or cantonment authorities and at all times adopt such precautions as may be necessary to prevent soil pollution of the Site.*

*On completion of the Works, the whole of such temporary structures shall be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed off and the whole of the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the Engineer.*

**m) Anti-malarial precautions:**

*The Contractor shall, at his own expense, conform to all anti malarial instructions given to him by the Engineer, including filling up any borrow pits which may have been dug by him.*

**n) Awareness and Education of HIV/AIDS:**

*The contractor shall provide/carryout HIV/AIDS awareness and training programme to its labour and management, at least twice per year during the construction period.*

**o) Child Labour Prohibition:**

*The contractor shall not employ Child Labour for any works or in any manner under the Contract at any time. In the event that the Contractor uses child labour, the Employer shall terminate the Contract.*

**p) Amendments:**

*The Employer may, from time to time, add to, or amend these Rules and issue such directions as it may be considered necessary for the proper implementation of these Rules or for the purpose of removing any difficulty, which may arise in the administration thereof.*

## ***PREAMBLE OF ENVIRONMENTAL MANAGEMENT PLAN***

- 1. Provision in EMP shall take precedence over overlapping stipulations in Technical Specification unless otherwise stated.***
- 2. The Environment Plan is an integral part of the contract and the contractor has the responsibility to implement it under the supervision of the Environmental officer of the Construction Supervision Consultant. All actions taken by the Environmental officer shall be deemed to have the concurrence of the “Engineer” as defined in the contract data.***
- 3. All management measures of the Environment and Management plan are deemed to be incidental to work unless otherwise provided in the BOQ. No separate payments shall be made for implementing these measures.***

- 4. The PRBDB / PWD Field Divisions shall organise orientation and training sessions during all stages of the project. This shall include on site training (general as well as in the specific context of a sub project). These sessions shall involve field level implementations staff of PRBDB/ PWD Field Divisions and the contractors. The contractor will ensure that his staff including engineers, supervisors and operators, workers attend the training sessions organised by the engineer / PRBDB / PWD Field Divisions.***
- 5. An Environmental compliance certificate issued by designated environmental officer of the engineer stating compliance status of measures / works stipulated in the EMP shall be submitted by the contractor along with the IPC.***
- 6. The Engineer shall issue substantial completion / works completion certificate only after verifying and certifying that clean-up operations and rehabilitation works have been completed satisfactorily.***

- 7. The Contractor will conduct meetings with the communities in the vicinity of the sites (minimum of one in each section) within two weeks of mobilization, to inform them of the type of construction activity, traffic diversion plans, construction timing, type of equipment, likely impacts such as noise and dust pollution, setting up of construction camp site (share the plans), requirement of labour, transport of material, plans for borrowing earth from near by areas etc. The contractors will maintain a channel of communication with the communities (through the environment officer) to address any concern or grievances. Periodic meetings will also be conducted during construction period to take feedback from communities or their representatives to ensure minimum disturbance.*