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Semua Pengarah Kanan / Pengarah Cawangan Ibu Pejabat JKR  
Semua Pengarah Kerja Raya Negeri  
Semua Pengarah Kerja Raya Wilayah Persekutuan  
Pengarah Bekalan Air Negeri Pahang  
Semua Pengarah / Pengurus Pembinaan  
Pengarah JKR Unit Khas  
Semua Jurutera Daerah

### SURAT ARAHAN KPKR BIL. 1/2012

- 1) **SPESIFIKASI UNTUK KESELAMATAN DAN KESIHATAN PEKERJAAN BAGI KERJA-KERJA KEJURUTERAAN PEMBINAAN 2011**  
( *SPECIFICATIONS FOR OCCUPATIONAL SAFETY AND HEALTH FOR ENGINEERING CONSTRUCTION WORKS 2011* )
- 2) **SENARAI KUANTITI UNTUK PENGURUSAN KESELAMATAN DAN KESIHATAN PEKERJAAN**  
( *BILL OF QUANTITIES FOR OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT* )

#### 1.0 TUJUAN

- 1.1 Surat Arahan ini bertujuan untuk menerangkan penggunaan "Spesifikasi Untuk Keselamatan Dan Kesihatan Pekerja Bagi Kerja-Kerja Kejuruteraan Pembinaan 2011" dan "Senarai Kuantiti Untuk Pengurusan Keselamatan Dan Kesihatan Pekerja" dalam kontrak kerja JKR yang berkaitan bagi pelaksanaan Sistem Pengurusan Keselamatan Dan Kesihatan Pekerja, (SPKKP) JKR OHSAS 18001.

#### 2.0 LATAR BELAKANG

- 2.1 Jawatankuasa Pembangunan Sistem Pengurusan Bersepadu (SPB) bersama dengan Pegawai-Pegawai Keselamatan dan Kesihatan JKR telah membentuk spesifikasi dan senarai kuantiti seperti di atas; yang selaras dengan pelaksanaan SPKKP untuk projek pembinaan JKR.
- 2.2 Spesifikasi dan Senarai Kuantiti berkenaan telah mengambil kira maklumbalas daripada Pengurusan Atasan JKR serta penggunaan dokumen SPB bagi projek-projek perintis dan merangkumi perkara-perkara berikut:

- 1 -



NO. SIRIM SUEK MS ISO 9001: 026



MS ISO 14001 CERT. NO. J011201102

- (a) Surat Arahan KPKR Bil. 1/2011 bertarikh 20 April 2011: Pemakaian Sistem Pengurusan Bersepadu Dalam Sistem Kerja JKR Malaysia.
- (b) Keperluan Akta Keselamatan dan Kesihatan Pekerjaan 1994 (*Occupational Safety and Health Act 1994*) dan Peraturan-peraturan di bawah akta, Akta Kilang dan Jentera 1967 (*Factory and Machinery Act 1967*) dan Peraturan-peraturan di bawah akta, serta keperluan-keperluan lain yang berkaitan.
- (c) Standard Antarabangsa OHSAS 18001.
- (d) Amalan industri terkini berkaitan keselamatan dan kesihatan pekerjaan.

### 3.0 ARAHAN PENGGUNAAN DAN PENGUATKUASAAN

- 3.1 Arahan ini berkuatkuasa mulai dari tarikh surat ini dikeluarkan. Y. Bhg. Dato'/Datin/Tuan/Puan dikehendaki mengambil maklum dan mengguna sepenuhnya spesifikasi dan senarai kuantiti ini untuk pelaksanaan SPKKP JKR OHSAS 18001 dan semasa penyediaan Dokumen Meja Tawaran di peringkat perolehan bagi kontrak kerja baru yang termasuk dalam skop.
- 3.2 Arahan ini hendaklah dibaca bersama dengan "**Garis Panduan Penggunaan Spesifikasi untuk Keselamatan dan Kesihatan Pekerjaan bagi Kerja-Kerja Kejuruteraan Pembinaan 2011**" seperti di **Lampiran A** yang disertakan bersama-sama dengan surat ini.
- 3.3 Sekiranya ada sebarang masalah atau kemusykilan berhubung dengan penggunaan spesifikasi dan senarai kuantiti ini, pihak Y. Bhg. Dato'/Datin/Tuan/Puan boleh merujuk kepada Bahagian Pengurusan Kualiti, Cawangan Pengurusan Korporat.

Sekian, terima kasih.

**'BERKHIDMAT UNTUK NEGARA DAN CINTAILAH BAHASA KITA'**



**( DATO' Ir. HJ. MOHD NOOR BIN YAACOB )**

Ketua Pengarah Kerja Raya,  
Malaysia

s.k.

Timbalan Ketua Pengarah Kerja Raya (Sektor Bisnes)  
Timbalan Ketua Pengarah Kerja Raya (Sektor Pengurusan)  
Timbalan Ketua Pengarah Kerja Raya (Sektor Pakar)  
Juruukur Bahan Cawangan / Negeri / Unit Khas  
Urusetia Sistem Pengurusan Bersepadu

**GARIS PANDUAN PENGGUNAAN SPESIFIKASI UNTUK  
KESELAMATAN DAN KESIHATAN PEKERJAAN  
BAGI KERJA-KERJA KEJURUTERAAN PEMBINAAN (2011)**

**1.0 Am**

- 1.1 Spesifikasi ini adalah khusus untuk digunakan dalam penyediaan Dokumen Meja Tawaran bagi kontrak kerja kejuruteraan pembinaan, pembaikan dan pengubahsuaian; dengan kos kontrak lebih daripada RM 20 juta atau projek-projek yang termasuk dalam skop.
- 1.2 Item 15 di bawah Spesifikasi ini adalah khusus bagi kontrak kerja yang melibatkan perlantikan *Nominated Sub-Contractor (NSC)*.
- 1.3 Bagi kos kontrak kurang daripada RM 20 juta, Spesifikasi ini hendaklah digunakan setakat mana yang berkenaan dan sesuai seperti yang berikut:
  - (a) Item 4 : *Registration of Engineering Construction Works with DOSH* (Pendaftaran Kerja Pembinaan dengan JKKP)
  - (b) Item 5 : *General Duty of Contractor* (Kewajipan Am Kontraktor)
  - (c) Item 6 : *Safety & Health Plan, S-Plan* (Pelan Keselamatan dan Kesihatan)
  - (d) Item 7.1 : *Site Safety Supervisor* (Penyelia Keselamatan Tapak)
  - (e) Item 9 : *Protective Equipment*
- 1.4 Penyediaan Spesifikasi ini telah mengambil kira Surat Arahan KPKR Bil. 1/2011 berkaitan "Pemakaian Sistem Pengurusan Bersepadu Dalam Sistem Kerja JKR Malaysia" yang dikeluarkan pada tarikh 20 April 2011. Spesifikasi Addenda hendaklah disediakan sekiranya terdapat pindaan kepada Spesifikasi ini.

**2.0 Pelarasan dengan Kehendak-Kehendak Projek**

- 2.1 Spesifikasi ini hendaklah terlebih dahulu disemak sebelum digunakan untuk setiap projek; bagi memastikan semua kehendak projek diliputi dan tidak ada mana-mana perenggan atau kandungannya yang tidak menepati atau bercanggah dengan kehendak-kehendak projek.
- 2.2 Semua kehendak projek yang tidak diliputi oleh Spesifikasi ini atau tidak sejajar atau bercanggah dengannya, hendaklah dikenal pasti.
- 2.3 Kenyataan "*please delete where not applicable*" dalam Spesifikasi ini hendaklah terlebih dahulu disemak sebelum digunakan untuk setiap projek; bagi memastikan semua kehendak projek diliputi dan tidak bercanggah dengan kehendak-kehendak projek.
- 2.4 Bagi tujuan pelarasan dengan kehendak-kehendak projek, semua pindaan yang perlu dibuat kepada Spesifikasi ini hendaklah dibuat melalui Spesifikasi Addenda.

### **3.0 Penyediaan Spesifikasi Addenda**

- 3.1 Sebarang pindaan pada naskah Spesifikasi ini sendiri tidak dibenarkan. Semua pindaan kepada Spesifikasi ini hendaklah dibuat dengan cara penyediaan Spesifikasi Addenda.
- 3.2 Spesifikasi Addenda hendaklah disediakan untuk memuatkan perkara-perkara berikut:
  - (a) Keperluan-keperluan khas projek yang tidak diliputi oleh Spesifikasi ini.
  - (b) Pembatalan atau pembetulan mana-mana perenggan atau kandungan Spesifikasi ini yang didapati tidak menepati atau bercanggah dengan kehendak-kehendak projek.
  - (c) Pindaan kepada Arahan dan Polisi Jabatan yang diambil kira dalam penyediaan Spesifikasi ini dan mana-mana arahan baru yang berkenaan yang dikeluarkan dari semasa ke semasa.
  - (d) Pindaan kepada Akta, Peraturan, Perundangan, *Code of Practice* dan Standard yang diambil kira dalam penyediaan Spesifikasi ini dan keperluan-keperluan baru yang berkenaan yang dikeluarkan dari semasa ke semasa.
- 3.3 Spesifikasi Addenda hendaklah disediakan bahagian demi bahagian mengikut susunan Spesifikasi ini seperti cara yang berikut:
  - (a) Menyata dan menyenaraikan perenggan dalam Spesifikasi ini yang hendak dibatalkan;
  - (b) Menyatakan perenggan-perenggan dalam Spesifikasi ini yang hendak dipinda dan penggantian dengan perenggan-perenggan yang dikehendaki; dan
  - (c) Menyatakan peruntukan-peruntukan baru berserta nombor yang diberi kepadanya dan muka surat ia ditempatkan dalam Spesifikasi ini.
- 3.4 Semua Spesifikasi Addenda hendaklah dimuatkan dalam satu naskah yang diberi tajuk bersesuaian dengan nama projek di muka depannya dan disahkan oleh Ketua Pasukan Projek (*Head of Project Team*) atau Ketua Pasukan Reka Bentuk (*Head of Design Team, HODT*) berkenaan.

### **4.0 Pertanyaan untuk Pemakaian Spesifikasi**

- 4.1 Sebarang pertanyaan berkenaan pemakaian spesifikasi ini (jika ada), sila merujuk kepada Bahagian Pengurusan Kualiti, Cawangan Pengurusan Korporat, Ibu Pejabat JKR Malaysia.





**Jabatan Kerja Raya Malaysia**

**SPECIFICATIONS FOR  
OCCUPATIONAL  
SAFETY AND HEALTH  
FOR ENGINEERING  
CONSTRUCTION WORKS  
2011**

**SPECIFICATIONS FOR  
OCCUPATIONAL SAFETY AND HEALTH  
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2011**

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**Appendix A: List of Related Acts, By-Laws, Regulations, Codes of Practice, Standards, Guidelines Referred To In This Specification**

## **1. Scope of Works**

- 1.1 The Conditions of Contract for the Works which is embodied in the Form of Contract (Form PWD 203/ Form PWD 203A) shall be read in conjunction with this Specification. A copy of the Form of Contract is available for inspection on the Tender Table on any working day up to the time appointed for receiving tenders. If the tenderer considers that any of the clauses of the contract involves expenses, he shall allow for the money value of such clauses in his Tender.
- 1.2 The Works covered in the contract comprise the provision by the Contractor at his own risk and cost of all materials, scaffolding, tools, plant, labour, transport, water, light and everything else necessary for the construction and completion of the project.

All to the entire approval of the Superintending Officer / Project Director hereinafter referred to as the S.O / P.D.

## **2. Special Provisions to the Conditions of Contract**

- 2.1 The Contractor's attention is drawn to the Special Provisions to the Conditions of Contract as listed in the PWD Form of Contract.

## **3. Examination of Tender Documents and Visit of Site**

- 3.1 The Contractor is deemed to have visited the Site and Site Briefing (as stated in tender notice) while preparing the tender to ascertain for himself the extent of the Works involved and the nature of the working conditions and make himself thoroughly acquainted with any site restrictions, obstructions and all other details.
- 3.2 The Contractor is deemed to have fully examined the Tender Documents and have had full opportunity to consider the details therein and make every investigation in relation thereto. Any discrepancies in the Tender Documents shall be referred in writing as soon as possible and before submitting the tender. If necessary, amend or clarify the matter by means of a formal Addendum to the Tender Documents. Receipt of the Addendum must be acknowledged on the form issued with the Addendum.

## **4. Registration of Engineering Construction Works with DOSH**

- 4.1 Construction Works with contract period more than Six (6) weeks shall register with DOSH by Contractor within Seven (7) days after the issuance of the Letter of Acceptance/Letter of Award/ or any document that constitutes acceptance of a contract of Works; as comply with Section 35, Factory And Machinery Act 1967.

**5. General Duty of Contractor (Employer & Self-Employed Persons) In Accordance with the Enforcement of Act**

5.1 Comply with Section 15: Occupational Safety And Health Act 1994.

- (i) The Contractor shall ensure, so far as is practicable, the safety, health and welfare at work of all his workmen (employees).
- (ii) Without prejudice to the generality of item (i), the matters to which the duty extends, so far as is practicable, include in particular:
  - (a) The provision and maintenance of plant and system of work with safe and without risks to health;
  - (b) The making of arrangements for ensuring safety and absence of risks to health in connection with the use or operation, handling, storage and transport of plant and substances;
  - (c) The provision for such information, instruction, training and supervision as is necessary to ensure the safety and health at work of his workmen
  - (d) The maintenance of place of work condition, the provision and maintenance of the means of access to and egress from place of work that are safe and without risks.
  - (e) The provision and maintenance of a working environment for his workmen that is safe without risks to health, and adequate as regards facilities for their welfare at work.

5.2 Comply with Construction Industry Development Board (CIDB) Malaysia Act 1994 and/or Regulations under the act

- (i) For compliance with the Construction Industry (Collection of Levy) Regulation 1996, the Contractor shall submit a notification on Form CIDB L1/96 to the CIDB not later than fourteen (14) days after the issuance of the Letter of Acceptance/Letter of Award/ or any document that constitutes acceptance of a contract of Works, or not less than fourteen (14) days before the commencement of the Works, whichever date is earlier.
- (ii) Ensure all workmen at Works and before entering the Construction Site must be owned with a valid CIDB Green Card.

**6. Safety and Health Plan (S-Plan)**

6.1 In addition to the Works Programme, the Contractor shall submit 5 copies of S-Plan in writing to the S.O / P.D (each copy for S.O / P.D, QS Office, Head of Project Team, Quality Office & Site Office) within Three (3) months after the receipt of Letter of Acceptance. It shall include the following:



- (i) Project Introduction and Scope of Works (as in Works Programme or Critical Path Method) associated with Occupational Safety and Health (OSH).
- (ii) Contractor's Authorised and Updated OSH Policy; Works that carried out to meet PWD OSH Objective and Targets.
- (iii) Contractor's Organisation Chart and Safety And Health Committee (SHC) Chart which shall describing the staff involved (example: Employer, Project Manager, Safety And Health Practitioner, Foremen, Designated Person / Person In Charge / Competence Person, Sub-Contractor, Supplier involved, Security Officer, Visitors, etc.), including list of duties and responsibilities.
- (iv) Communication, Consultation and Involvement of each member of the Contractor's project team as shown in the **Item 6.1(iii)**, including their relationship, interfacing and cooperation of workmen for successful implementation of the project. The planning shall taking account control of any OSH related complaints, advice, OSH programmes and awareness, SHC meetings' schedule, and solving OSH related issues.
- (v) Contractor's Authorised Updated Compliance List on OSH Legislation and Other Related Requirements as in **Appendix A**.
- (vi) List of Prohibited foods and drinks including drugs and medicine.
- (vii) Personal Protective Equipments at Works.
- (viii) OSH Trainings and Programmes to all workmen including sub-Contractor: Safety and Health Induction, Tool Box Meeting, CIDB Green Card, First Aid, Housekeeping, Working at Height, Manual Handling, Vector Control, Site Safety Inspection and Audit, Provision of Information (poster/ pamphlet/ notice board).
- (ix) Emergency Respond Plan: Emergency routes and assembly point, emergency contact list, evacuation drill, emergency respond team, facilities and welfares, and emergency respond plan.
- (x) Safe Work System on Temporary Electricity Installation Works. To be including designated person in charge, approved of materials used, reference, advised by TNB (if necessary), prohibited on danger or illegal installation.
- (xi) Safe Operational Procedures for **Item 6.1(i)**: method of statements for working at confined space, renovate/ upgrading/ repair/ maintenance of plants (as interpret in OSHA 1994), site clearance/ foundation/ blasting/ excavation/ underwater/ demolition/ concreting/ lifting/ etc.
- (xii) Incident investigation (death, dangerous occurrence, accident, ill-health, near miss).
- (xiii) Daily Reporting on Incident Statistic.
- (xiv) Provide Chemical Safety Data Sheets or Material Safety Data Sheets.

- (xv) Health Precaution on workmen: Medical Report (Health Surveillance), noise prevention.
  - (xvi) Sanitation for workmen.
  - (xvii) Safety Signage and Traffic Control (taking account: forklifts, lorries, cranes, etc. as in the Contractor's machinery list; access routes and related operations at Site) / (refer to Traffic Management Plan if it exists in the contract).
- 6.2 The Contractor shall after the receipt of Letter of Acceptance, submit in writing to the S.O/ P.D, The Hazard Identification, Risk Assessment and Risk Control (HIRARC) before commencement of each activities describe in **Item 6.1(i)** throughout the contract period. (*The Contractor can refer Guideline for HIRARC, 2008, DOSH*)
- 6.3 S-Plan shall be signed by the Director (Employer) of the company with the date and version on the cover page. It can be prepared in Bahasa Malaysia or English.

## **7. Human Resources and Training**

- 7.1 The Contractor shall employ a competent person as Safety and Health Practitioner as below; and all safety measures shall be carried out in accordance with Occupational Safety And Health (Safety And Health Officer) Regulations 1997, Factory And Machinery (Building Operations And Works Of Engineering Construction) Regulation 1986 throughout the entire contract period; if the Safety And Health Practitioner absent from Works, Contractor shall get the permission from DOSH to operate the Works without Safety and Health Practitioner or Contractor may required to (temporarily) appoint another Safety And Health Practitioner.
- (i) Safety and Health Officer (SHO) to be stationed full time for all projects with cost of contract more than RM20 million or high risk workplace as directed by S.O/P.D/DOSH.
  - (ii) Site Safety Supervisor (SSS) to be stationed minimum 15 hours a week for all projects.
  - (iii) The Contractor shall comply with Occupational Safety And Health (Safety and Health Officer) Order 1997, Order I and II in any contract price of the project exceeds RM20 million or high risk. As stipulated in this Order, the main Contractor shall ensure their sub-Contractor(s) employ SHO.
  - (iv) Every Contractor other than main Contractor incharge of worksite who employs more than 20 persons shall appoint Contractor Safety Supervisor to be stationed minimum 5 hours a week.
- 7.2 The Contractor shall form a Safety and Health Committee and organise Meetings at minimum once in every Three (3) Months. The functions of committee to be complied with Occupational Safety and Health (Safety And Health Committee) Regulations 1996.

- 7.3 The Contractor shall employ competent person(s) (requiring certificate of competency) in-charge of handling certain machines (machineries requiring certificate of fitness) in respect of lifting, moving, shifting, transferring works.
- 7.4 The Contractor shall provide welder(s) certified by DOSH in the event of welding is required.
- 7.5 The Contractor shall conduct OSH related training and programme for the workmen including sub-Contractor for the successful implementation of the project as following below. All costs shall be deemed by the Contractor.
- (i) OSH related Best Practise and Awareness Course / First Aid Training to be trained by the trainer from (DOSH / NIOSH / PWD / MOH / all or as S.O / P.D approved).
  - (ii) CIDB Green Card to be conducted by CIDB
  - (iii) Toolbox / Induction / Evacuation Drill / Housekeeping Programme

## **8. Inspection, Audit and Report**

- 8.1 Carry out site safety and health inspections with related checklist including submission of 5 copies monthly safety and health report (each copy for S.O / P.D, QS Office, Head Of Project Team, Quality Office & Site Office). The report shall also describe the followings:
- (i) Related OSH programme (toolbox meeting/ training/ drill/ inspection/ induction/ housekeeping/ audit/ legislation complied/ etc).
  - (ii) Incident statistic from daily notification of any accidents, near misses, lost time injuries, death and ill-health with actions taken; in accordance with Occupational Safety And Health (Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Disease) Regulations 2004. The Contractor shall be held solely responsible for all incidents arising from any negligence in this respect.
  - (iii) Related OSH issues on complaints / Non-compliance / damages and actions taken.
  - (iv) Status on S-Plan and HIRARC.
  - (v) List of workmen permit / CIDB Green Card / tools and machineries.
  - (vi) Traffic and other related safety control.
- 8.2 Provision and maintenance of safety and health statistic scoreboard at the entrance of site office / workplace.
- 8.3 Carry out site safety and health audits as per DOSH and Legal Requirements or/and instructed by S.O / P.D.

## 9. Protective Equipments

9.1 Provision and maintenance of Personal Protective Equipment to S.O/P.D staffs at site of adequate quantity and of approved quality as instructed by S.O/P.D. The equipment shall include but not be limited to the following:

- (i) Safety boots
- (ii) Safety helmets
- (iii) Safety harness and life lines  
(for workmen who work at heights more than 2m above ground level)
- (iv) Protective gloves
- (v) Safety goggles
- (vi) Safety jackets of reflective type
- (vii) Ear plugs and muffs
- (viii) Gas masks
- (ix) Dust masks
- (x) Head lamp
- (xi) Life jacket
- † (any additional...etc.)

9.2 Provision and maintenance on the site during the entire contract period, of the adequate safety equipment to be approved by the S.O/P.D:

- (i) Gas detectors (Apply for Works in confined spaces only)
- (ii) Breathing apparatus
- (iii) Air ventilation pumps
- (iv) Adequate lighting and warning lamps
- (v) Fire extinguishers
- (vi) Hazard tape
- (vii) Safety barriers

## 10. Health Measures, Protection and Welfare

10.1 To conduct Health Measurements (if necessary) by designated / competent person (example: Occupational Health Doctor / Medical Practitioner). Medical Report (Health Surveillance) of workmen to be recorded by the Contractor (employer / self-employed person) for the Works exposed to chemicals and hazardous working area as listed in Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

10.2 The Contractor shall be required to provide a complete First Aid Kit which shall be kept and properly maintained in the Contractor's site office. The kit shall be in the charge of either the Contractor's site representative or some other responsible person who shall be on the Site during all working hours to ensure that the first aid facilities are available without delay at all times when Works is in progress. At least One (1) designated person of the Contractor's staff shall be trained in first aid duties.

10.3 The Contractor must refrain from dumping or/and depositing (that capable of collecting water) which afford breeding places for mosquitoes (including houseflies, rats, insects and other dangerous animals). All excavation and any portion of the

site where water stagnates or accumulates shall be kept dry by pumping, bailing or other operations (vector control). He shall pay all charges as may be required by the MOH / Local Authority and employ whatever destructive measures as are necessary entirely at his own cost and expense.

- 10.4 All Work shall be carried out without unreasonable noise and dust suppression. The Contractor shall taking measures to ensure that all equipment, machinery and place of Works are in proper working condition so as to minimize the amount of noise generated and dust suppression. The S.O/ P.D may require the Contractor to replace any machinery and equipment as well as method of statements that to his discretion, is emitting excessive noise and dust.
- 10.5 The Contractor shall provide, maintain, kept tidy and clean all temporary accommodation and facilities including below:
- (i) Shall not be more than two storeys high with adequate ventilation and lighting for dining, recreation, praying, sleeping and resting purpose; under no circumstances shall the accommodation be provided in buildings under construction; location shall be laid out in an approved and orderly manner; and shall be such as to avoid obstruction and nuisance to the Works and public.
  - (ii) Separate center for firewood, gas or kerosene stove for cooking.
  - (iii) Plumbing and water used for consumption shall be obtained directly from water authority mains; else potable water shall be provided from sources approved by the S.O/P.D and comply with Ministry Of Health (MOH) requirements.
  - (iv) Electricity shall be obtained from TNB; else generator set for power supply can be used but safety precautions must be taken.
  - (v) Proper provision for the disposal of all waste and refuse.
- 10.7 The Contractor shall provide adequate temporary toilet (1 no. for every 25 workmen used) and bathing place with necessary water, septic tank and drainage in accordance with Department of Environment (DOE) or/and Local Authority requirements. It shall be maintained in a clean and sanitary condition at all times to the satisfaction of the S.O/ P.D/ MOH/ Local Authority. All waste water must be treated such that its effluent meets the requirements.

## 11. Safe Working Area

Allow for compliance with Guidelines for Public Safety and Health at Construction Sites, DOSH, and other Occupational Safety and Health requirements stated and as listed in **Appendix A** to ensure safe working area.

- 11.1 The Contractor shall provide and maintain on the site in positions as approved by the S.O/P.D the adequate, secure and weatherproof temporary storage(s) for use during the execution of the contract.

- (i) Shed for storage of cement
  - (ii) Shed for bar-bending and similar Works
  - (iii) Store for chemical / hazardous substance
  - (iv) Store for other building materials
  - † (any additional...etc.)
- 11.2 The Contractor shall supply, erect, maintain and removal on completion of the works, for as long as is considered necessary adequate, protective and security hoarding and such other safety measures necessary to ensure the safety of the public and other who may be on or within the vicinity of the Site.
- 11.3 Supply, erection and dismantling of scaffolding, working platform with safety nettings (please delete where not applicable) by competent person(s) under the direct supervision of a designated person under Regulation 74(1): Factory and Machinery (Building Operations and Works of Engineering Construction) Regulations, 1986.
- 11.4 Construction Works above 15m
- (i) Submission of scaffolding design and working platform certified by a Professional Engineer (PE) for the approval of the S.O/ P.D;
  - (ii) The Contractor shall establish a safe work system to ensure that Works are being carried out in safe manner.
- 11.5 Supply, erection, maintains and dismantling of catch platform during demolition of structure or other related exterior works at more than 12m height; and shall be constructed and maintained not more than 6m below from which the exterior works. Such platform shall be designed by a Professional Engineer and certified for safety prior to erection. Catch platform shall not be used for storage of material or be used as working platforms or walkways.
- 11.6 Erection, maintenance and removal of safety barricades / fencing / railing / screen / wire netting / toe board for maintaining safe working environment (please delete where not applicable) during the Works.
- 11.7 Provision, maintenance and removal of guardrails or board fences and temporary foot walks with adequate overhead protection for public walkways and thoroughfares (please delete where not applicable) during the Works.
- 11.8 Cordoning off working area and provision of public control and safety measures where lifting operations, moving, shifting, transferring works are carried out outside the hoarded up area of the worksite.
- 11.9 The Contractor shall ensure that all electrical and mechanical tools and equipment is inspected by a competent / designated person.
- 11.10 Drainage of Site, Erosion Control, Site Clearing and Cleaning



- (i) The Contractor shall accordance with Local Authority requirements, make proper provision and maintenance for the drainage of surface runoff from surrounding areas which drain on to the site; installs and maintains silt trap and silt fences for trapping silt and sediment including desilting during construction.
- (ii) The Contractor shall construct gabion walls for trapping sediments in catchment area where necessary.
- (iii) The Contractor shall construct sediment pond or basin for collecting and trapping sediments before the water leaves the site. The sediment basin shall be maintained such that the silt shall be removed when a sediment accumulation of approximately One Third (1/3) the basin depth is observed or as confirm to the DOE requirements.
- (iv) The Contractor shall at his own cost, provide, form, fix and maintain such pumps, chutes, walls, drains, bunds and other temporary Works necessary for the proper drainage of the site so that no flooding or other damage or disturbance is caused to place of Works or vicinity areas throughout the entire contract period.
- (v) The Contractor shall remove all construction debris and garbage (including sediment and desilted materials) from site at regular intervals to the disposal sites in accordance with Local Authority or/and DOE.

## **12 Safety Signage And Traffic Management**

(Ignore this item only if Traffic Management Plan is existed in the contract already.)

- 12.1 Provision and maintenance of adequate safety, traffic and warning signs and warning lights at place of Works and close proximity of public.
- 12.2 Provision and maintenance of traffic control and signage by competent persons including provision of flagmen; where Works is in close proximity of public road and reporting to S.O/ P.D. (*for Road Construction Works, please refer Nota Teknik Jalan JKR No. 23/2003, Arahan Teknik Jalan 2C/85*)

## **13 Site Security**

- 13.1 Prevent unauthorized entry to the place of Works.
- 13.2 As stipulated in Item 5.1 (ii) (d).

## **14 Special Safe Working Condition**

### **14.1 Confined Spaces**

(Including excavations works, underground works, foundation works, caisson piling works, tunnelling works, underwater diving, demolition works, and places of work as defined in the Code of Practice for Safe Working In a Confined Space, 2001, DOSH)

- (i) The Contractor shall comply with Occupational Safety and Health requirements stated in laws, regulations and as listed in **Appendix A**.

- (ii) The Contractor shall ensure that closed tanks with restricted means of entry and exit, open manholes, trenches, pipes, flues, ducts, ceiling voids, enclosed rooms such as basements and other places where there is inadequate ventilation and/or the air is either contaminated or oxygen deficient, be tested before entry to determine that there are adequate levels of oxygen present, and that dangerous amounts of flammable and or poisonous gases are not present. (Proprietary meters are available).
- (iii) The Contractor shall establish a safe work system for workers who will be carrying out their work in confined spaces.
- (iv) The Contractor shall adopt an entry permit system, so as to ensure that employees and others are aware of the location of anyone required to enter confined spaces.

## **15 Nominated Sub-Contractors (NSC)**

- 15.1 The Contractor shall comply with Occupational Safety and Health requirements stated in laws, regulations and as listed in **Appendix A**.
- 15.2 As stipulated in Item 7.1.
- 15.3 The NSC must cooperate and obeys to Main Contractor's Safety And Health Practitioner's OSH related advice.
- 15.4 Involve in Safety and Health Committee and OSH programme.
- 15.5 Provide any relevant information on **Item 6.1(iii), (x), (xi) and (xiv)**.
- 15.6 Relevant provisions as listed in **Item 9** and **12.1**.
- 15.7 Affording free and full use of storage accommodation as describe in **item 11.1** for materials, equipment and plant which are for incorporation into the Works and/or which require protection against weather and deterioration, mess rooms, sanitary and welfare facilities.
- 15.8 Affording free and full use of standing scaffolding whilst it remains erected on the Site. On the contrary, provide any scaffolding, staging, etc. that are required as listed in **Item 11.3 to 11.8** for the Works.
- 15.9 Providing competent personel in compliance with the Electricity Regulations 1994 to take responsibility for the operation of the electrical installation from the time the permanent electricity supply is made available until testing, commissioning and handing over of the Works.
- 15.10 Protecting, watching and taking full responsibility for all NSC work and unfixed materials and goods intended for use thereon.
- 15.11 Removing rubbish and debris off the Site and cleaning the Works internally and externally.

## APPENDIX A

### List of Related Acts, By-Laws, Regulations, Codes of Practice, Standards, Guidelines Referred To In This Specification

- a) Occupational Safety And Health Act (OSHA), 1994 and Regulations under the act
- b) Factory And Machinery Act (FMA), 1967 and Regulations under the act
- c) Uniform Building By-Law (UBBL), 1984
- d) Environmental Quality Act (EQA), 1974
- e) Construction Industry Development Board Act, 1994
- f) Local Government Act, 1976
- g) Street, Drainage and Building Act, 1974
- h) Electricity Supply Act, 1990
- i) Electricity Regulations, 1994
- j) Fire Services Act, 1988
- k) Explosives Act, 1957
- l) Irrigation Areas Act, 1953
- m) The Radiation Protection (Basic Safety Standards) Regulations 1987
- n) MS 2318 : Code of Practice for Demolition of Buildings, 2010
- o) BS 5228 : Code of Practice for Noise control on Construction and Demolition Site
- p) Code of Practice for Safe Working In A Confined Space, 2001, DOSH
- q) Guidelines For Hazard Identification, Risk Assessment And Risk Control, 2008, DOSH
- r) Guidelines For Public Safety And Health At Construction Sites, 2007, DOSH
- s) Guidelines For The Prevention of Falls At Workplaces, 2007, DOSH
- t) Guidelines on Occupational Vibration, 2003, DOSH
- u) Guidelines On Occupational Safety And Health In Tunnel Construction, 1998, DOSH
- v) Standard OHSAS 18001



# **SENARAI KUANTITI PENGURUSAN KESELAMATAN DAN KESIHATAN PEKERJAAN**

Item	Description	Unit	Amount
<b>[A]</b>	<b>PLANNING FOR SAFETY &amp; HEALTH MANAGEMENT SYSTEM</b>		
A1	Preparation of 5 copies site safety and health plan (S-Plan) as per JKR requirement and it shall include among others:  i) Safety and Health Policy ii) Emergency Response Plan (ERP) iii) Chemical Safety Data Sheet (CSDS) (Shall submit within Three (3) months after the receipt of Letter of Acceptance).	Item	.....
A2	Preparation of Hazard Identification Risk Assessment and Risk Control (HIRARC) for the activities carried out at site. (To be sequent submitted before commencement of each works throughout the contract period).	Item	.....
A3	Safety Report Prepare and submit to the S.O/P.D of 5 copies monthly safety & health report describing the occurrences of accidents, near misses, injuries and deaths and the actions taken. The report may be incorporated in the Progress Report for the entire duration of the contract. It shall also include:-  i. Schedule of safety & health committee meetings, ii. Site safety & health toolbox meetings, iii. Safety & health audit reports, iv. Safety & health inspections reports.	Item	.....
<b>[B]</b>	<b>RESOURCES FOR SITE SAFETY</b>		
B1	Employment of a Site Safety & Health Officer (SHO) registered with DOSH and to the satisfaction of the S.O/P.D for the entire contract period to be stationed fulltime at the site. (For works exceeding RM20 millions contract value or high risk workplace as directed by S.O/P.D/DOSH)	month	.....
B2	Employment of a Site Safety & Health Supervisor (SSS) and to the satisfaction of the S.O/P.D for the entire duration of the construction period to be stationed minimum 15 hours a week at the site.	Item	.....





Item	Description	Unit	Amount
[E]	<b>SAFE WORKING AREA</b>		
E1	Supply erection, maintenance and removal on completion of the works, protective and security hoarding as stipulated in <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works.</b>	LS	.....
E2	Supply, erection and dismantling of scaffolding, working platform with safety nettings (please delete where not applicable) by competent person(s) under the direct supervision of a designated person as stipulated in <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works.</b>	LS	.....
E3	Submission of scaffolding design and working platform for works above 15m height certified by a Professional Engineer for the approval of the S.O/P.D as stipulated in <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works.</b>	LS	.....
E4	Supply, erection, maintains and dismantling of catch platform during demolition of structure or other related exterior works at more than 12m height. Such platform shall be designed by a Professional Engineer and certified for safety prior to erection as stipulated in <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works.</b>	LS	.....
E5	Supply erection, maintenance and removal of safety barricades / fencing / railing / screen / wire netting / toe board for maintaining safe working environment (please delete where not applicable) during the works.	LS	.....
E6	Provision and maintenance of guardrails or board fences and temporary foot walks with adequate temporary overhead protection for public walkways and thoroughfares. (Please delete where not applicable).	LS	.....
E7	Cordoning off working area and provision of public control and safety measures where lifting operations, moving, shifting, transferring works are carried out outside the hoarded up area of the worksite as stipulated in <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works.</b>	LS	.....
E8	Measures to prevent the breeding of mosquitoes, houseflies, rats, insects and other dangerous animals on the Site throughout contract period.	LS	.....

Item	Description	Unit	Amount
<p>[F]</p> <p>F1</p>	<p><b>SPECIAL WORK CONDITION</b></p> <p>Allow for Statutory Obligation including payment of all fees and charges compliance with Occupational Safety and Health requirements stated in laws, regulations and by-laws which are not included elsewhere in this Bill of Quantities as stipulated under the Conditions of Contract and <b>JKR Specification For Occupational Safety And Health For Engineering Construction Works</b> , details of which are to be particularized below:-</p> <p><b>Confined Spaces</b></p> <p>The contractor shall ensure that closed tanks with restricted means of entry and exit, open manholes, trenches, pipes, flues, ducts, ceiling voids, enclosed rooms such as basements and other places where there is inadequate ventilation and/or the air is either contaminated or oxygen deficient, be tested before entry to determine that there are adequate levels of oxygen present, and that dangerous amounts of flammable and or poisonous gases are not present. (Proprietary meters are available).</p> <p>The contractor shall establish a safe work system for workers who will be carrying out their work in confined spaces.</p> <p>The contractor shall adopt an entry permit system, so as to ensure that employees and others are aware of the location of anyone required to enter confined spaces.</p>	<p>LS</p>	<p>.....</p>