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ENVIRONMENTAL MANAGEMENT PLAN

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1. INTRODUCTION

1.1 PURPOSE

The purpose of this plan is to minimize the adverse impacts on the environment by establishing and maintaining the effective mitigation plans against environmental problems that may arise during the Project construction.

2. SCOPE

As work progresses, this plan shall be amended as necessary and further developed to incorporate all conditions and mitigation measures contained in the final Environmental Impact Assessment Report.

CONTRACTOR shall develop and implement an internationally recognized Environmental Management System (EMS) for all activities related to the Project construction activities in line with the CONTRACTOR Corporate Environmental Management System and ISO 14001 Standards Requirements (refer to Annex 7.1 Certificate of ISO 14001)

During the construction period, appropriate measures for environmental conservation and protection shall be continuously and strictly taken. All measures shall be in accordance with the contract specification and current applicable laws and regulations.

Some important items that shall be considered in order to minimize the environmental impacts are as follows but not limited to:

- Air emission
- Dust control
- Noise and vibration control
- Wastewater quality control
- Waste management control
- Pollutants Spillage control, etc.

3. DEFINITIONS

3.2 DEFINITIONS

Audit	Systematic examination to determine whether activities and related results conform to planned procedures and whether

	these procedures are implemented effectively and are suitable for achieving carried the organization's policy and objectives.
Continual Improvement	Process of enhancing the environmental management system to achieve improvements in overall environmental performance in line with the organization's environmental policy
Environmental Performances	Measurable results of the Environmental Management System related to the Organization's control of environmental aspects, based on Environmental policy and objectives.
Environmental Targets	Detailed performance requirement, quantified wherever practicable, applicable to the organization or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
HSE Management System	Part of the overall management system that facilitates the management of the Health, Safety and Environmental risks associated with the activities of HDEC, Sub-Contractors and Vendors.
HSE (or Environmental) Policy	Statement by the organization of its intentions and principal in relation to its overall HSE (or Environmental) performance which provides a framework for action and for the setting of its HSE (or Environmental) Objectives and Targets
Environment	Surroundings in which an organization operates, including air, water, land natural resources, flora, fauna, humans, and their interrelation.

4. RESPONSIBILITIES

4.1 PROJECT MANAGER (PM)

Environmental responsibilities of PM in general are given below but not limited to:

- Review and approve strategic Project HSE Policy and Objectives
- Approve the Project environmental protection plan and other procedures
- Define roles, responsibilities and provide resources for ensuring that environmental requirements are implemented and maintained in all areas of Project activities
- Ensure that Project Environmental Management System is managed in a structured manner throughout the site organization.
- Ensure sufficient resources are available to support the implementation of the Project Environmental Management System
- Review suitability and effectiveness of the Project Environmental Management System, etc.

4.2 ENVIRONMENTAL CONTROL SUPERVISOR (ECS)

CONTRACTOR shall appoint a qualified Environmental Control Supervisor (ECS). ECS must be aware of the information and knowledge of Environmental Management System (EMS) and Environmental Impact Assessment Report (EIA Report).

It is the ECS responsibility to advise the Project Manager on the following main areas:

- Proper management and disposal of wastes
- Control of noise and dust pollution
- Sewage water and drainage control
- Air and water pollution control
- General housekeeping.

Environmental responsibilities of ECS in general are given below, but not limited to:

- Ensure that the environmental requirements are established, implemented and maintained across the Project site activities, specifically including:
  - Identification and assessment of environmental aspects.
  - Environmental objectives, targets and environmental management program.
- Develop and maintain environmental documents (e.g. Project environmental plan and control plans or procedures) and records.
- Monitor adherence to the Project environmental policy & objectives, alerting management of non-compliance, and providing advice on remedial actions, through environmental audits, reviews, inspections etc.
- Monitor and verify closeout of actions arising from environmental audits.
- Report periodically to the Project management on the performance of the Project environmental management system.

4.3 SECTION MANAGER (SM)

Environmental responsibilities of SM in general are given below, but not limited to:

- Fully aware of Project environmental policy, objective & targets and management programs.
- Understand and apply responsibilities specified in the environmental management system documentation.
- Ensure that the environmental requirements are established, implemented and maintained across the responsible section activities, specifically including;
- Identification and assessment of environmental aspects.
- Environmental objectives, targets and environmental management program.
- Coordinate Project Environmental Control Supervisor.

- Support & monitor the implementation, performance and effectiveness of the environmental management system.
- Participate in HSE Committee meetings and take every opportunity to talk to his team about environmental issues.
- Support & ensure that supervisors or foremen are working to focus attention on supervising the most hazardous and significant activities.
- Ensure all corrective actions assigned to his team arising from audits, incidents and environmental reviews are implemented on time.

5. ENVIRONMENTAL MANAGEMENT

5.1 OVERVIEW

The management of all environmental aspects of the Project activities shall be developed through a comprehensive Project Environmental Management System (PEMS). The PEMS is underpinned by the CONTRACTOR Corporate HSE Management System providing a high level of environmental standards.

The PEMS shall be designed and implemented in accordance with CONTRACTOR Corporate HSE Management System and aligned to ISO 14000 series principles for environmental management system. The PEMS shall address the management actions and commitments associated with environmental matters specific to overseas Project.

5.2 ENVIRONMENTAL POLICY AND OBJECTIVES

CONTRACTOR shall establish Project Environmental Policy and Objectives in line with CONTRACTOR Corporate HSE policy statement. A copy of CONTRACTOR Corporate HSE Policy and Objectives Statement is provided in Annex 7.2.

5.3 PROJECT ENVIRONMENTAL MANAGEMENT SYSTEM (PEMS)

The PEMS shall be developed to provide a systematic and structured approach to comprehensively cover all significant environmental aspects of the Project.

It will be based on CONTRACTOR Corporate HSE Procedures and will cover all relevant laws and regulations for the protection of the environment. Essentially the PEMS shall provide Project with the structure for:

- Managing the operations in a way that ensures that continual improvement in environmental performance and compliance with legislation is achieved.

- Establishing and assessing performance against its commitments
- Setting environmental objectives and targets
- Developing and effectively implementing appropriate plans and procedures.

Primary outcomes of the PEMS are to ensure that all activities associated with the design, construction of the Project are planned and performed so that adverse effects on the environment are either avoided or kept to an acceptable level while meeting all statutory requirements. Obligations to fulfill the responsibilities and accountabilities across all elements of the PEMS involve the participation of both CONTRACTOR and various Sub-Contractors within the Project.

5.4 ENVIRONMENTAL ORGANIZATION

CONTRACTOR shall establish Project environment organization and appoint Environmental Control Supervisor to comply with relevant laws and legislation and to implement Environmental Management System on site. The Organization of the Project Environmental function is shown in Annex 7.3.

The Environmental Management System ensures that the Project Environmental Objectives are met through implementation of technical activities and procedures, a Project HSE Team shall be appointed to perform all the technical activities included in this Environmental Protection Plan and the Corporate HSE Manual.

The CONTRACTOR Head Office Safety and Environment Department supports the Project Management Team with specialist advice, consultation, inspection, auditing and directions for the execution of the tasks to comply with relevant laws and legislation and to implement Project Environmental Management System on site.

5.5 COMPLIANCE WITH LEGAL REQUIREMENTS

CONTRACTOR shall be responsible for all impacts on the environment which result from Project construction activities. Such impacts include any form of pollution and excessive noise affecting those outside the site boundary.

CONTRACTOR shall comply with all relevant Acts and Regulations, including the provided Environmental Impact Assessment and other regulations of local and national government relevant to the Project. Newly legislated and revised environmental laws shall be examined in order to determine whether those have influence over Project activities. Environmental laws and other requirements shall be kept up-to-date.

5.6 ENVIRONMENTAL ASPECTS IDENTIFICATION AND ASSESSMENT

A wide range of potential environmental impacts is foreseeable from the identification of environmental aspects and assessment of environmental impacts, and many impacts relate directly to construction activities on site.

At the beginning of the Project, CONTRACTOR will comply with the Environmental Aspects Identification & Assessment in accordance with Corporate Environmental Aspects Identification and Assessment procedure. CONTRACTOR shall review the following data for identification and assessment of environmental aspects:

- A similar site's environmental aspects identification and assessment report.
- Construction methods and public complaints that are arise or are expected to arise during construction.
- Heavy equipment and materials used for construction.
- Utilities and facilities related to the construction
- Environmental Impact Assessment, if available
- Project specification
- Current applicable laws and regulations, work practice, etc.

The expected adverse (significant) environmental impacts are as follows:

- Earth littering and dusts
- Noise & Vibration
- Contamination of Groundwater
- Contamination or disturbance of watercourses and sea water
- Soil erosion and silt of watercourses
- Loss or disturbance of natural habitat
- Improper waste disposal
- Emissions to atmosphere/Fugitive dust
- Damage to Public health
- Silt, Coloration and Increases of Turbidity in watercourse.

5.7 EVALUATION, SELECTION AND CONTROL OF SUB-CONTRACTORS

CONTRACTOR shall be responsible for ensuring Project Sub-Contractors' good environmental performance. CONTRACTOR shall:

- Conduct meetings before bid submission to address specific environmental requirements.
- Include Project specific environmental requirements in bid packages.
- Request environmental information from each prospective Sub-Contractor and evaluate it during the selection process.

- Stipulate environmental performance in the contractual agreements between the CONTRACTOR and Sub-Contractors.
- Establish specific training requirements for Sub-Contractors.
- Conduct pre-job meetings to address environmental expectation.
- Require formal Sub-Contractor environmental induction course for all new employments at the site.
- Review the environmental performance of the Sub-Contractors.

5.7.1 CONTROL OF SUB-CONTRACTORS

All HSE rules and provisions should be set down in detail in the contract for the sub-contractor to follow and implement. One of such provisions should be that the sub-contractor agrees to abide by all the provisions of the HDEC HSE policy which may affect his employees or the work, including compliance with workplace HSE rules.

In case the sub-contractor further sub-contracts all or part of his work to other sub-contractors, the sub-contractor should ensure that their sub-contractors are fully aware of the HSE policy and rules of HDEC. The following special conditions should therefore be attached to the contract for the sub-contractor to undertake:

- To inform any sub-sub-contractor of all HSE requirements.
- To incorporate observance of all HSE requirements as an obligation in any future sub-contract.
- To require the sub-sub-contractor to define similar requirements if they in turn sub-contracts any work.

The sub-contractor should submit a detailed and comprehensive HSE Plan based on the Outline HSE plan, indicating how they and their sub-contractors (if any) are going to implement the HSE measures for risk control during the work. The HSE plan should include at least the following:

- HSE Policy.
- Responsibilities of Sub-contractor which, when being implemented, should ensure compliance with all HSE rules set out in detail in the contract.
- HSE procedures, rules and obligations.

The sub-contractor should adhere to the HSE plan in carrying out his obligations under the contract and should ensure that his own sub-contractors of any tier (if any) receive copies of the HSE plan and comply with its requirement as well. A sub-contractor's participation in on-site HSE committee meetings should be a condition of the contract.

5.7.2 MONITORING WORK IN PROGRESS OF SUB-CONTRACTOR

- The sub-contractor should appoint/nominate a person or a team to co-ordinate all aspects of the contract, including HSE matters on site.
- The sub-contractor should develop communication methods to pass on all relevant HSE information to all persons concerned in the activities.
- The sub-contractor should report all lost time accidents and dangerous occurrences including their sub-contractors.
- Records of sub-contractors' employee training, equipment inspection and incidents are to be maintained.
- HSE Manager shall carry out periodic inspection to monitor sub-contractor's compliance with HSE requirements.
- The HSE inspections are to be documented and such inspections could be carried out jointly with the sub-contractors.
- All sub-contractors and their works shall participate in the Project Penalty system for HSE violations so as to enhance HSE at the site.
- Project Manager shall administer the penalty system.
- Action Tracking Register (ATR) will be maintained to monitor the status of Environmental issues.

5.7.3 PERFORMANCE EVALUATION OF SUB-CONTRACTOR

- The onsite HSE performance of the sub-contractor shall be evaluated on a regular basis during their execution of work on site.
- The performance evaluation result shall be informed to all sub-contractors.
- HSE Performance recognition will be awarded to the best sub-contractor.

5.8 ENVIRONMENTAL MEETING AND COMMITTEE

CONTRACTOR shall conduct regular environmental meetings and committee with internal organization and Sub-Contractors to ensure that works are carried out on site with minimum adverse impacts to environment/workers and the public.

This environmental meeting will be incorporated in the safety & committee meeting where safety, health and environmental matters are to be discussed at the same time.

[Sample of HSE Meeting]

5.9 ENVIRONMENTAL WEEKLY MEETING

The environmental weekly meeting shall be held for the purpose to:

- Review and discuss environmental incidents and non-conformances generated from Project activities within one week.
- Review and discuss all site environmental matters.
- Review environmental performance of environmental protection plan and other control plans
- Review training requirement and practice.

5.10 ENVIRONMENTAL COMMITTEE MEETING

The environmental committee meeting shall be consist of the Project manager who shall be the chairman, the registered safety manager, environmental control supervisor as the secretary, section managers and site manager of Sub-Contractors. All members shall be given appropriate training to enable them to carry out their duties.

CONTRACTOR shall adopt the following format as environmental committee meeting agenda in the notice to all members:

- Confirmation of minutes of previous meeting
- Chairman's review of site safety and environment performance /condition
- Report from environmental control officer
- Site environment inspection report
- Incident and accident investigation/analysis
- Safety and environment talk by committee members
- Any other business.

5.11 ENVIRONMENTAL TRAINING AND COMMUNICATION

CONTRACTOR shall establish procedures to ensure that all personnel and in particular new personnel, or personnel transferred to new assignment are given proper environmental training relevant to their duties.

CONTRACTOR shall ensure that all personnel are provided with basic training [i.e. Environmental Induction Course (incorporates environment matters), environmental laws and regulations, Project rules on working at site, emergency evacuation procedures]. And CONTRACTOR shall keep signed records of training attendance.

CONTRACTOR shall ensure that all managers, supervisory personnel including those of Sub-Contractors are trained in environmental management system.

CONTRACTOR shall be responsible for identifying environmental training which may be required for the performance of the work and ensure that such training is provided for the personnel concerned to mitigate adverse environmental impact. All training information, records and certificates shall be properly documented, kept and made available for verification.

Environmental training will include but are not limited to:

- Project HSE (Environmental) policy and objectives
- Significant environmental aspects identified
- Environmental management program
- Emergency preparedness and response plan/drill
- Dust control plan
- Noise control plan
- Wastewater control plan
- Waste control plan
- Pollutants spillage control plan
- Current applicable environmental laws and regulations
- MSDS contents of hazardous materials, etc.

[Sample of HSE Training Room]

5.12 ENVIRONMENTAL COMMUNICATION

Informing employees, subcontractors and suppliers of Environmental expectations and ensuring that the safe work practices are being followed by Contractor's communication system through regular training (Induction, Refresher) and Environmental meetings (Weekly, Monthly and Tool Box Meeting).

Contractor shall establish a communication system among managers, supervisory personnel, workers, and subcontractors. The communication system shall consist of the Tool Box Meeting, Co-ordination Meeting, Environmental Committee Meeting and any other committee meeting necessary to comply with statutory requirements.

Contractor shall conduct regular Environmental meetings and committee with internal organization and subcontractors to ensure that works are carried out on site with minimum risk to workers and to the public.

Furthermore, lines of communication need to be developed from and to the workforce personnel through their supervision and management in order to raise general Environmental awareness and to develop an effective feedback communication system.

The main method for communicating Environmental requirements to the workforce is through the line supervision chain of responsibility. The different workforce talks between Line Supervisors, Environmental staff and employees enable exchanges on Environmental issues.

5.13 EMERGENCY PREPAREDNESS

CONTRACTOR shall establish an emergency plan to respond effectively to emergency situations on the site to include but not limited to fire, spills, etc.

The emergency plan shall:

- Establish evacuation procedures.
- Assign responsibilities to specific individuals.
- Provide notification to the Authority and outside agencies such as fire station, hospital, etc.
- Establish means of communications.
- Assign locations for emergency centers.
- Provide in-house emergency responses
- Include site security and controlled access

The information developed shall be documented and communicated as appropriate within the site to ensure that the site organization can respond to emergency situations.

CONTRACTOR shall establish a program of training, drills and exercises to test and evaluate the preparedness for emergency actions. CONTRACTOR shall, once every six months, organize emergency exercises based on likely site scenarios in which the key site personnel work through their emergency response roles.

5.14 ENVIRONMENTAL INCIDENT INVESTIGATION, ANALYSIS AND REPORTING

CONTRACTOR shall establish procedure to identify record, investigate and analyze any environmental incidents that occur on site. The investigation and analysis shall identify the root cause and contributory causes of the incidents and formulate measures accordingly to prevent future recurrence of similar incident. The investigation of the incident or non-conformance shall include:

- Identifying and handling any legislative compliance issues associated with the environmental incident or non-conformance.
- Identifying root causes and taking appropriate action to manage the resulting environmental impact occurring from the incident or non-conformance.
- Initiating any corrective and preventive actions and confirming effectiveness of actions taken. Any actions taken will be appropriate to the magnitude of problems and commensurate with the environmental risk.

CONTRACTOR shall establish procedures to ensure that all personnel including the Sub-Contractors' workers have the skills to report safety incidents. CONTRACTOR shall keep records of all incidents reports, investigation, analysis and counter measures taken and shall submit details of this in Safety Monthly Report, if required.

5.15 ENVIRONMENTAL INSPECTION

Project key performance indicators shall be developed to monitor environmental performance prior to construction activities. Monitoring environmental incidents and the close-out of audit and incident action items will be included. The key performance indicators will be regularly monitored, recorded, tracked and communicated.

CONTRACTOR shall establish procedure to carry out internal environmental inspections at least once per shift. In addition, informal spot checks will be carried out more frequently on critical site activities. A written record shall be kept of the daily inspection findings and the results of the inspections should be brought to the attention of the environmental control supervisor and the section managers having responsibility in the area concerned, together with the necessary remedial action and due date for completion.

Any corrective action should be immediately implemented by the section manager, and followed up by the environment staff, with regular monitoring by safety and environment department site. CONTRACTOR shall ensure that inspections are carried out at a specified frequency which will ensure a high level of compliance with the provisions of the EMS.

Inspections which are requested by the statutory requirements shall be carried out at a frequency and in accordance with any procedure given in the relevant legislation. Inspection records and follow up action plan shall be properly documented. In addition, following any regulatory inspection, CONTRACTOR shall submit a written report to the COMPANY which shall provide details of all aspects of the inspection, if required.

5.16 ENVIRONMENTAL AUDIT

CONTRACTOR Corporate Safety & Environmental Management Office shall appoint an internal environmental audit team to audit the EMS of the site at least once every year.

The following items should be inspected during internal audits:

- Current environmental laws & regulations
- Responsibilities of Project organization
- Results of environmental aspects identification & assessment
- Sub-Contractors and purchase control
- Operational control of environmental protection
- Training and competence
- Emergency preparedness
- Incidents and corrective actions
- Audits and inspections
- Environmental improvement plan, etc.

CONTRACTOR shall periodically review and evaluate the efficiency of the Project EMS in place by the members of Safety Committee Meeting. The audits and possible corrective actions should be carried out in accordance with the documented procedures of CONTRACTOR Corporate Internal HSE Audit Procedure.

All corrective actions for deficiencies identified during audit shall be implemented by the site to verify the satisfaction of the EMS. In addition, the results of audits and corrective actions should be kept and submitted to the COMPANY, if required.

5.17 ENVIRONMENTAL IMPROVEMENT PLAN

CONTRACTOR shall establish environmental objectives and improvement plans based on incident analysis, audit results and results of environmental aspects identification/assessment, in order to raise the Project EMS.

Project environmental improvement plan will cover at least the following:

- Achievement of environmental objectives
- Corrective actions following environmental incidents
- Corrective actions regarding non-conformities observed during internal or external audits, self and imposed inspections
- Review of training and emergency drills
- Environmental aspects identification & assessment and preventive actions
- Complaints from local inhabitants or local authorities.

CONTRACTOR shall review Project environmental improvement plan with CONTRACTOR Corporate Safety & Environmental Management Office periodically during the construction period in compliance with Royal Commission Environmental Regulations 2015 Volume I & II, Environmental Impact Assessment and other relevant requirements

6. ENVIRONMENTAL CONTROL AND MONITORING

6.1 AIR EMISSION

CONTRACTOR's responsibilities with regard to air emissions shall be to:

- Identify all possible air pollution sources related to construction activities in a method statement as well as procedure to minimize emission into air.
- Ensure there is adequate monitoring of air emissions if it falls within the COMPANY guidelines and regulations.

- Ensure all CONTRACTOR's equipment is regularly serviced and maintained. Report any signs of engine not running efficiently like black smoke, poor fuel economy and performance to the appropriate manager.
- Ensure hazardous materials are identified during Works and notify COMPANY immediately.

6.2 DUST CONTROL

6.2.1 OBJECTIVES

- To minimize the dust nuisance impact on surrounding communities of dust generation during construction activities.
- To minimize potential risks of dust generated from vegetation and animals such as livestock.

6.2.2 DUST CONTROL PLAN

A dust control plan shall be compiled and implemented for the construction phase and the following key issues included:

- Avoidance of unnecessary removal of vegetation.
- Routine spraying of unpaved site roads and access roads with water.

[Water spraying truck]

- Where feasible, sufficient number of workers will be deployed to cleanup all public road where soil is deposited by any vehicles leaving the site.
- Limiting vehicle-entrained dust from unpaved roads through traffic control measures. e.g. limiting vehicle speeds and restricting traffic volumes
- Covering of materials with potential to results in dust and air contamination during transportation.
- Abstain from undertaking cement stabilization during windy periods.
- Use motorized sweeper or vacuum vehicle on surfaced roads to reduce the presence of sand and debris.

- Where possible, cover construction areas that generate dust with temporary shade-cloth or plastic sheeting to minimize dust generation.

[Sample of Covering]

6.2.3 SPECIFIC CONTROL ACTION

6.2.3.1 DRILLING AND BLASTING

- Where breaking of rock/concrete is required, watering shall be implemented to control dust, water sprays shall be used during the handling of excavated material at the site and at active cuts excavation and fill sites where dust is likely to be generated.
- Where drilling of rock is required, dust controls, including watering prior to drilling to wet down the rock face, shall be implemented to control fugitive dust.
- Blasting operations shall be well arranged and take appropriate precautions to minimize dust generation, such as the use of blast nets, canvas covers, rubber mats and the area within 30m from the blasting area shall be wetted with water prior to blasting.

6.2.3.2 MATERIAL HANDLING

- The heights from which excavated materials are dropped shall be controlled to a minimum practical height to limit the fugitive dust generation from unloading.
- All stockpiles of aggregate shall be enclosed or covered entirely by impervious sheeting or sprayed with water or dust suppression chemical so as to maintain the entire surface wet.

6.2.3.3 SEWAGE DISPOSAL/HOLDING TANKS

- Sewerage treatment system will be designed and installed to carry all wash and wastewater, sewage, etc. Where a public sewer system is available, all plumbing fixtures and sewers shall be connected to it in accordance with applicable laws and regulations.
- Sewage shall be collected and treated prior to disposal. Effluent shall comply with legal guidelines for emissions into the environment, as appropriate.
- Where a treatment system cannot be provided, appropriate mobile treatment facilities must be considered wherever possible (even in the case of temporary portable cabin) and the sewage shall be collected regularly by a reputable sewage collector for disposal.

6.2.3.4 VEHICLE DUST

- Effective water sprays shall be used on the site to dampen potential dust emission sources such as unpaved areas used by site traffic and active construction area.
- Vehicles transporting materials that have the potential to generate dust shall have proper fitting side and tail boards.
- Materials transported by vehicles shall be covered entirely by clean impervious sheeting, with the cover properly secured and extended over the edges of the side and tail boards to ensure that the materials do not leak from the vehicle.
- Materials shall also be dampened, if necessary, before transportation.
- In order to prevent earth movement from the site due to construction activity and run off onto public road, drains, the site shall be inspected regularly.
- On-site vehicle speeds shall be controlled to reduce dust re-suspension and dispersion by traffic within the sites.
- Wheel washing facilities shall be provided at the exit of the site to prevent dusty material from being carried off-site on vehicles and deposited on public roads.

[Wheel washing machine]

6.2.3.5 EXCAVATION

- The working area of any excavation or earth moving operation shall be sprayed with water before and after the operation so as to maintain the entire surface wet
- The amount of soil exposed and the dust generation potential shall be kept as low as possible. This can be accomplished by surface compaction, temporary fabric covers, minimizing the extent of exposed soil and the prompt re-vegetation of completed earthworks.

6.2.3.6 SITE CLEARANCE

- The working area for the uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures shall be sprayed with water before and after the operation so as to maintain the entire surface wet.

6.3 NOISE AND VIBRATION CONTROL

6.3.1 OBJECTIVES

- To adhere to the noise and vibration regulations as implemented within the noise impacted areas.
- As a minimum, ambient noise levels emanating from the noisy equipment must not exceed 85 dB at the site boundary.
- To comply with the occupational noise regulations of the Local Regulatory Authority.

6.3.2 NOISE AND VIBRATION CONTROL PLAN

CONTRACTOR shall compile and implement a Noise and Vibration Control Plan, which shall be prepared prior to commencing construction. The noise and vibration control plan shall consolidate the noise and vibration control method statements to be compiled by Sub-Contractors undertaking activities leading to noise impacts. The Noise and Vibration Control Plan shall include the following measures for good practice:

- All equipment shall be kept in good working order.
- Equipment shall be operated within specifications and capacity (e.g. Don't overload machines)
- Equipment shall be operated with appropriate noise abatement accessories such as sound hoods and CONTRACTOR shall ensure that these accessories are correctly maintained.

- Equipment shall be operated in as diversified a manner as possible (i.e. if possible, spread operation of equipment throughout working periods rather than operating several items simultaneously).
- Equipment shall be turned off when not in use.
- Pumps, generators, compressors and saws shall be positioned in sheltered locations.

[Sample of shelter protection]

- When explosives are used on the construction process, controlled blasting method shall be used to reduce noise, vibration and air over pressure.
- Vibration levels shall be monitored and recorded for blasting operation conducted on the site.
- Noise and vibration emitting construction equipment shall be placed away from sensitive receptors.
- Partly finished buildings shall be used to accommodate pumps, generators, compressors and saws.
- When using pile drivers, jack hammers, and rock drills for blasting activities, select the time when the environment is least sensitive to noise impact preferably during normal working days daytime hours.

CONTRACTOR shall institute a noise monitoring program that must incorporate sound level metering at key locations during the construction activities.

[Sample of Noise Measuring]

6.3.3 SPECIFIC CONTROL ACTION

Noise emissions from construction sites can be minimized through good site practice, selecting quiet plant and quiet working methods and through the use of temporary barriers.

To reduce impact of noise to the residential area from operation of vehicles and equipment for site, the speed of vehicles and other equipment shall be limited and noise from operation of the equipment shall be minimized.

6.3.3.1 NOISE-PRODUCING EQUIPMENT CONTROL

- Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction works
- Machines and plant (such as trucks) that may be in intermittent use shall be shut down between work periods or shall be throttled down to a minimum
- Plant known to emit noise strongly in on direction shall, where possible, be oriented so that the noise is directed away from noise sensitive receivers
- Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction works
- Mobile plant shall be sited as far away from noise sensitive receivers as possible.

6.3.3.2 TEMPORARY NOISE BARRIERS

- In general, noise barriers located between noisy construction activities and noise sensitive receivers can provide noise reduction from screening.
- Movable noise barriers can be located close to noisy plant or between noisy construction activities and noise sensitive receivers in order to achieve a certain level of noise reduction.
- Material stockpiles and other structures shall be effectively utilized, where practicable, to screen noise from on-site construction activities.

[Sample of Noise Barriers 1]

[Sample of Noise Barriers 2]

[Sample of Noise Barriers 3]

[Sample of Noise Barriers 4]

6.3.3.3 SCHEDULING OF CONSTRUCTION ACTIVITY

- Activities may be scheduled to minimize noise generated at certain areas during periods which may be particularly sensitive to noise
- Works using machines or vehicles that generate noise shall be prohibited in the midnight and the dawn.

6.3.3.4 OTHERS

- Explosion works produce noise and vibration. The preventive measure shall be taken. Selection of proper explosives grade and limit amount of use shall be assured.
- When blasting, it is a good practice to give local residence advanced warning of blasting periods, and use screen, curtains and/or mats whenever possible.

6.4 WASTEWATER CONTROL

6.4.1 OBJECTIVES

- To minimize of water being contaminated.
- To minimize deterioration of ground water and surface water quality.

6.4.2 WASTEWATER CONTROL PLAN

CONTRACTOR shall compile and implement a wastewater control plan, which shall be prepared prior to commencing construction. The control plan shall include the following details:

- The plan shall identify sources of wastewater, the required treatment in line relevant local regulation, state the collection facilities that are to be used to prevent pollution, as well as the method of disposal of the contaminated water.

- The control plan for wastewater generated from concrete batching plant operation.
- Water from washing large concrete-mixing equipment (mixers and the like) shall not be discharged overland. Such water shall be removed and disposed of in the correct manner. CONTRACTOR will consider recycling this water to minimize discharges.
- All washing operations shall take place at a location where wastewater can be disposed of in the correct manner.
- All washing of equipment or machinery shall be undertaken in designated areas (e.g. workshop or maintenance areas), and these areas must be equipped with a suitable impermeable floor and sump/oil trap. The use of detergents for washing shall be restricted to low phosphate and nitrate containing.
- Workshops, fuelling depots and washing areas shall be bunded.
- Oil collected in grease traps shall be collected by the appointed waste disposal contractor.
- Any wastewater or spilled fuel collected within bunded area around the fuelling area shall be disposed of as hazardous waste.

Heavy rainwater control plan is to be designed and implemented for the construction phase of the Project. This shall be prepared by the CONTRACTOR prior to commencing construction. The control plan shall include the following details:

- Actions to address the reduction of surface water run-off and resultant erosion.
- Natural run-off shall be diverted away from any camps (i.e. office area used by CONTRACTOR and Sub-Contractors on site) towards the storm water drains where these are available.
- Special care must be taken in areas susceptible to erosion, e.g. steep slopes. CONTRACTOR shall ensure that sand, silt and silt-laden water do not enter the heavy rainwater drain system, or any surface watercourse. CONTRACTOR shall appropriate measures to limit erosion and prevent silt and sand entering drainage or watercourse due to construction activities. For example, erosion and sedimentation control measures shall include:
    - Removal of vegetation during the construction period will be minimized to reduce surface runoff and erosion.
    - Temporary fences shall be erected and maintained to ensure that activities are conducted within the demarcated area, and thus limit impact on the environment.
    - Environmentally sensitive areas shall be clearly marked. No persons, machinery, equipment or materials shall enter these areas.

- All hazardous material storage areas shall be designed to reduce risk of spillages. All materials shall be covered during transport to prevent them from spilling.
- Contaminated rainwater and other run-off from construction site shall be contained. Construction of dirt trap, interceptor pond and the attenuation dam shall be commenced as early as possible in the construction phase.
- In the event of a spill which may contaminate rainwater, the spill control procedures shall be implemented immediately.

6.4.3 SPECIFIC CONTROL ACTION

6.4.3.1 START OF SITE ESTABLISHMENT

- Perimeter cut-off drains to direct off-site water around the site shall be constructed and internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bund walls or sandbag barriers shall be provided on site to direct storm water to silt removal facilities.

6.4.3.2 NO SILT/POLLUTION OF SURROUNDING SEA/SEABED AREAS

- If any of the coloration, silt, pollution, deposition of fill or dredged material, formation of high spots etc. occur at any of the surrounding sea waters due to dredging/reclamation works, immediately take appropriate actions to remedy the causes of the discharge and to dredge and remove such silt, high spots, etc.
- Adequate silt barriers shall be installed and maintained throughout the Project period in order to prevent dredged/reclamation materials from flowing/drifting away from the dredging, dumping, and reclamation operations.
- On completion of the work, the silt barriers including sinkers/anchor blocks shall completely be removed.

[Silt protection]

6.4.3.3 DEBRIS IN WATERCOURSES AND SEAWATER

- Any oil, solid, noxious or floating materials shall not be discharged into watercourses. And all water discharged shall be reasonably free of impurities.

6.4.3.4 SOIL EROSION AND SEDIMENTATION CONTROL

Erosion and Sedimentation Control shall be in compliance with the LEED BD+C v4 requirements in line with erosion and sedimentation requirements of the 2017 U.S. Environmental Protection Agency (EPA), Construction General Permit (CGP) and local regulation such that:

- Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place
- Construction works shall be programmed to minimize surface excavation works during the rainy season. All exposed earth areas shall be completed and vegetated as soon as possible after earthworks have been completed.
- If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surface shall be covered.
- The overall slope of the site shall be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads protected by coarse stone ballast.
- Sediment tanks of sufficient capacity are recommended as a general mitigation measure which can be used for settling wastewater prior to disposal.
- All drainage facilities and erosion and sediment control structures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit shall be removed regularly and disposed of by spreading evenly over stable, vegetated areas.
- Measures shall be taken to minimize the ingress of site drainage into excavation. If the excavation of trenches in wet periods is necessary, they shall be dug and backfill in short sections wherever practicable. Water pumped out from trenches or foundation excavation shall be discharged into storm drains via silt removal facilities.
- Open stockpiles of construction materials (e.g. aggregates sand and fill material) shall be covered during rainstorm. Measures shall be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.

- All storm sewer inlets that are made operable during construction shall be protected so that sediment- laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment
- Manholes shall be always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.
- Particular attention shall be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.
- All vehicles and plant shall be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay shall be provided at every site exits and wash-water shall have sand silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.

6.4.3.5 FUEL TANKS

- All fuel stored on site shall be kept in drums or in bulk tanks which in either case shall be located at a designated place away from any source of ignition or open drain which does not lead to an interceptor, and shall be properly labeled. A "No Smoking" sign shall be displayed at the storage location and a charged fire extinguisher of the correct type kept on standby.
- All fuel storage tanks/drums shall be in adequate size to contain the given quantity of fuel. Tanks/drums shall be maintained in enclosed condition all time with appropriate lid to limit evaporation and emissions.
- Proper earthing / bonding shall be ensured during fueling or re-fueling process in order to avoid fire and explosions.
- All fuels tanks shall be fitted with a gauge (fuel level indicator tube) to monitor the level of fuel in the tank.
- Any spillage of fuel shall straight away be absorbed using sand or other absorbent materials, which shall be disposed of as contaminated waste.
- All fuel tanks and storage areas shall be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water systems.

6.5 WASTE CONTROL

6.5.1 OBJECTIVES

- To maximize the internal and external recycling of materials.
- To minimize the volume of solid waste requiring disposal by landfill

6.5.2 WASTE CONTROL PLAN

Waste Control Plan shall be designed and implemented for the construction activities. This plan shall:

- Record quantities and composition of waste streams, sources of waste streams, length of storage on site, and final destinations. This would constitute the basis for a continuous improvement programme in waste minimization.
- Incorporate the following waste control hierarchy to mitigate environmental impacts:
  - Minimize the generation of waste
  - Re-use the waste during construction
  - Re-use or recycle waste streams to other users at other locations
  - Dispose unusable waste streams at permitted waste disposal facilities.
- The system for collecting, sorting, disposal and recycling of waste shall be clearly described in the waste control plan. This shall include:
  - A separate waste disposal area shall be designated on the construction site, which contains clearly demarcated skips and bins to allow different types of waste to be segregated at source: domestic, metal scrap, used oil, paper, hazardous etc. In addition, separation along the lines of potential re-use and recycling opportunities shall be undertaken.
  - CONTRACTOR shall provide sufficient bins with lids to store the solid waste produced on a daily basis. Bins shall not be allowed to become overfull and shall be emptied as a minimum on a weekly basis. The waste may be temporarily stored on site in a central waste area that is weatherproof and scavenge-proof.
  - No on-site burning, burying or dumping of any waste materials, vegetation, litter or refuse shall occur.
- Moved earth and the associated rubbles are unlikely to be contaminated and require disposal. This could therefore potentially be re-used on site to construct landscape features and thereby minimize the amount of waste requiring disposal by landfill.
- The amount of waste sent to landfill can be further reduced by investigating opportunities for recycling or re-use of waste. The investigation shall include potential treatment options which would increase the recycle-ability and re-usability of these waste streams.
- The waste sorting and temporary storage area shall be permanently controlled by a dedicated waste control officer to ensure compliance with the waste sorting and disposal requirement.

[Waste sorting and segregation]

- CONTRACTOR shall ensure that the waste control Sub-Contractors are suitably qualified and equipped to manage the waste generated during construction.
- CONTRACTOR shall ensure that disposal facilities (whether landfill, or processing plants) have the necessary permits required in order to process the waste or by-product received from the construction site.
- All wastes shall be disposed of off-site at an approved landfill site.
- CONTRACTOR and its Sub-Contractors will take all necessary measures to prevent any discharge of any substances, which may result in pollution or be deleterious to life or the surrounding environment.
- Aqueous waste will be connected to sewerage treatment plants via closed drains.
- Domestic solid waste from the camps and accommodation will be stored in predetermined collection points prior to their removal and disposal by the appointed contractor.
- Timber and other scrap material with a commercial value shall be separated and stored in segregated areas prior to removal.
- Oil and other lubricants shall be collected in drums and disposed of in accordance with CONTRACTOR instructions.
- Batteries shall be drained and flushed before disposal and the residual acid diluted and neutralized shall be discharged into the sewerage plant.
- Sharps containers will be provided for medical facilities (for syringes, suturing kits and needles) and also clearly identified bagging for infectious or contaminated items.
- Adequate drainage and sewerage facilities designed and installed in accordance with CONTRACTOR specifications.
- Siting and provision of concrete wash areas and disposal area.
- Identification of disposal areas for non-contaminated materials such as spoil.
- Appointment of approved CONTRACTOR for the removal of hazardous and solid waste to existing incineration and landfill areas

6.5.3 SPECIFIC CONTROL ACTION

6.5.3.1 EXCAVATED INERT MATERIALS

- Excavated materials are not considered likely to cause adverse impacts, since they may be possible to be used as reclamation fill, which is considered a useful reuse of the material. Any uncontaminated inert material may be delivered to public fill site.
- Surplus excavated material, quarry overburden, rock rejected for aggregate, aggregate surplus to the requirements and the like shall not be discarded indiscriminately.
- Different types of surplus excavated materials shall be deposited separately in the spoil dumps designated for the purpose outside the Project site.

6.5.3.2 CONSTRUCTION AND DEMOLITION WASTE

- Careful planning and good site management can minimize over ordering and waste of materials such as concrete, mortars and cement groups. If feasible, the noise enclosure shall be designed so that the materials are reusable after it has been dismantled and removed.
- The design of formwork could maximize the use of standard wooden panels so that high re-use levels can be achieved. Alternatives such as steel formwork or plastic facing could be considered to increase the potential for re-use.
- Disposal of construction waste can either be at a specified landfill, or a public dump.

6.5.3.3 WASTE FROM VESSEL (DREDGERS, BARGES, BOATS, ETC.)

- All the construction vessels are equipped with wastewater and solid waste handling facilities.
- There will be no disposal of waste into the aquatic environment.
- Oily wastewater and oil-contaminated material generated from the construction machinery during the construction activities will be collected and transferred back onshore for treatment/disposal.
- Solid construction wastes generated during offshore construction works will be collected and transferred onshore for disposal onshore.
- Sanitary sewage on vessels and ships used in the marine construction works will be collected in marine sanitation devices. This waste will be disposed of in an approved sewage disposal system onshore or discharged to the sea after treatment if meet the discharging standards.

6.5.3.4 HAZARDOUS (CHEMICAL) WASTE

- For the process which generates chemical waste, it may be possible to fine alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste. The management of hazardous waste causes number of problems in practice. The wide range of materials and chemicals involved such as oil, lubricants, cutting oils, sludge, paints etc. Hazardous waste shall be identified, classified, handled and disposed of safely.
- Types of hazardous waste:
  - Fuel, waste oil, paints and contaminated material with oil
  - Sludge contaminated with heavy metals
  - Corrosives, including acids and alkalis
  - Other hazardous substances
- Containers used for the storage of chemical wastes shall:
  - Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed
  - Display a label. Proper labeling is essential.
- The storage area for chemical waste shall;
  - Be clearly labeled and used solely for the storage of chemical waste
  - Be enclosed on at least 3 sides
  - Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest
  - Have adequate ventilation
  - Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)
  - Be arranged such as to separate incompatible materials

[Chemical waste storage]

- Disposal of chemical waste shall:
  - Treated by a licensed waste collector

- Be to a facility licensed to receive chemical waste, such as the chemical waste treatment facility (which offers both a chemical waste collection service and supply the necessary storage containers)
- Hazardous and toxic waste shall not be disposed of on the seawater.
- Hazardous waste shall be removed from the site property within 60 days.
- Hazardous waste shall not be dumped onto the ground, into storm sewers or seawater, or into sanitary sewer system.

6.5.3.5 FOOD (CATERING) WASTE

- Catering wastes is divided into food waste and non-food waste.
- Catering waste shall be collected and separated by personnel in the catering team and then transported by the licensed waste collector.
- Food waste shall be daily removed from the kitchen.
- Food waste shall always be contained in plastic bags for disposal to prevent pest like flies and rats e.g. from breeding.
- Non-food waste (beverage cans, packing materials, etc.) shall be collected in separate containers.

6.5.3.6 GENERAL REFUSE

- General refuse generated on-site shall be stored in enclosed bins or compaction units separate from construction and chemical waste. A reputable waste hauler shall be employed to remove general refuse from the site, separately from construction and chemical wastes, on a daily or every second day basis to minimize odor, pest and litter impacts. The burning of refuse on construction sites is prohibited.
- General refuse is generated largely by food service activities on site, so reusable rather than disposable dishware shall be used if feasible. Aluminum cans are often recovered from the waste stream by individual collectors if they are segregated or easily accessible, so separate labeled bins shall be provided if feasible.

6.6 POLLUTANTS SPILLAGE CONTROL

6.6.1 OBJECTIVES

- To minimize negative environmental impacts through rapid and effective containment and clean-up actions.

6.6.2 POLLUTANTS SPILLAGE CONTROL PLAN

CONTRACTOR shall develop and implement a pollutants spillage control plan prior to the start of construction activities. Procedures detailed in the Material Safety Data Sheet (MSDS) for hazardous materials shall be included in this plan and followed in the event of an emergency situation.

CONTRACTOR shall ensure compliance with the following and where necessary, include details of how this will be achieved in the pollutants spillage plan.

6.6.2.1 CONTAMINANTS OF SPILLAGES

- CONTRACTOR shall ensure there is no contamination of the soil or seawater as a result of spills from any workshop/vessel and other equipment maintenance facilities.
- Any workshop shall have a smooth impermeable (concrete or thick plastic covered with sand) floor. The floor shall be bunded and sloped towards an oil trap or sump to contain any spillages.
- Pumps and other machinery requiring oil, diesel, etc. that is to remain in one position for more than two days shall be placed on drip trays. The drip trays shall be emptied regularly and the contaminated water disposed of off-site at a facility capable of handling such wastewater. Drip trays shall be cleaned before any possible rain events that may result in the drip trays overflowing and before long weekends and holidays.
- All vehicles and equipment shall be kept in good working condition and serviced regularly.
- All equipment that leaks onto the ground shall be repaired immediately or removed.
- When servicing equipment, drip trays shall be used to collect the waste oil and other lubricants. Drip trays shall also be provided in construction areas for stationary plant (such as compressors) and for "parked" plant (such as scrapers, cranes, loaders).


[Sample of drip trays for spill protection]

- If servicing and fuelling of vehicles/vessels and equipment takes place on site, this shall occur at dedicated and properly equipped facilities. All waste generated by these activities shall be managed as per the Waste Control Plan and the Wastewater Control Plan.
- If diesel or oil refueling is to take place on the construction site then the surface under the refueling area shall be protected against pollution to the ground or seawater.
- CONTRACTOR shall not change oil or lubricants anywhere on site except at designated locations, not unless if there is a breakdown or an emergency repair. If emergency repairs are required outside of designated areas, CONTRACTOR shall take proper control measures prior to commencing such activities and shall ensure that appropriate absorbent materials and/or drip trays are available to collect any oil, fluid, etc.

6.6.2.2 SPILLAGE CLEAN-UP

- Emergency clean-up procedures shall be developed and communicated to all personnel such that they are aware of the procedures to be followed for dealing with spills. The procedures shall include identification or responsible personnel and reporting procedures, contact details of emergency services, etc.
- Procedures detailed in the MSDS for hazardous materials shall be followed in the event of an emergency situation.
- CONTRACTOR shall ensure that the necessary materials and equipment for dealing with spills is available on site at all times.
- CONTRACTOR shall ensure that there is always a supply of pollution control kit, absorbent materials readily available to absorb/breakdown or where possible, where encapsulate minor chemical/oil spillages.
- Any waste water or spilled fuel collected within the bund around the refueling area shall be disposed of as hazardous waste.

- CONTRACTOR shall remove all oil, petrol, and diesel-soaked sand immediately and shall dispose of it as hazardous waste.
- If spillages of materials occur during transportation, spillages shall be cleaned-up immediately and transported to the shelter for possible use or disposed of at the appropriate disposal facilities.

6.7 HOUSEKEEPING

CONTRACTOR shall ensure that good housekeeping is maintained throughout the duration of work.

- Each supervisor is responsible for housekeeping in their own work area.
- Special attention must be given to maintain clear walkways, removal of slipping and tripping hazards, and proper storage of materials.
- The grounds and open areas surrounding the camp buildings shall be maintained in a clean and sanitary condition free from rubbish, debris, waste paper, garbage or other refuse.
- All living and work areas are to be kept clean and tidy.
- Lunch rooms and toilets are to be kept in a clean and healthy condition and food scraps placed in food bins.
- Housekeeping will be part of the weekly inspection.

7. REFERENCES

6.1 The HDEC Corporate HSE Policy Document
6.2 The HDEC Corporate HSE Manual
6.3 The HDEC Corporate HSE Procedures
6.4 ISO 14001 (Environmental Management System) Standards Specifications

8. ANNEXES

7.1 Certificate of ISO 14001
7.2 Contractor HSE Policy and Objectives Statement
7.3 Project Environmental Organization Chart

ANNEX 7.1 CERTIFICATE OF ISO 14001

Lloyd's Register

Current issue date: 19 November 2020
Expiry date: 18 November 2023
Certificate identity number: 10308937

Original approval(s):
ISO 14001 - 20 December 1996

Certificate of Approval

This is to certify that the Management System of:

Hyundai Engineering & Construction Co., Ltd.

75, Yulgok-ro, Jongno-gu, Seoul 03058, Republic of Korea

has been approved by Lloyd's Register to the following standards:

ISO 14001:2015

Approval number(s): ISO 14001 – 0069222

The scope of this approval is applicable to:

ISO 14001:2015
R&D, project management, engineering & design, procurement, construction, commissioning & operation, maintenance, construction supervision, consulting and after-servicing services for civil, building, housing, plant, environmental facility, environmental restoration, electrical, information & telecommunication, dredging, reclamation, landscaping, cultural properties repair and structural steel works.

Il-Hyoung Lee
Korea Operations Manager

Issued by: Lloyd's Register Quality Assurance (Korea) Ltd.

for and on behalf of: Lloyd's Register Quality Assurance Limited

UKAS
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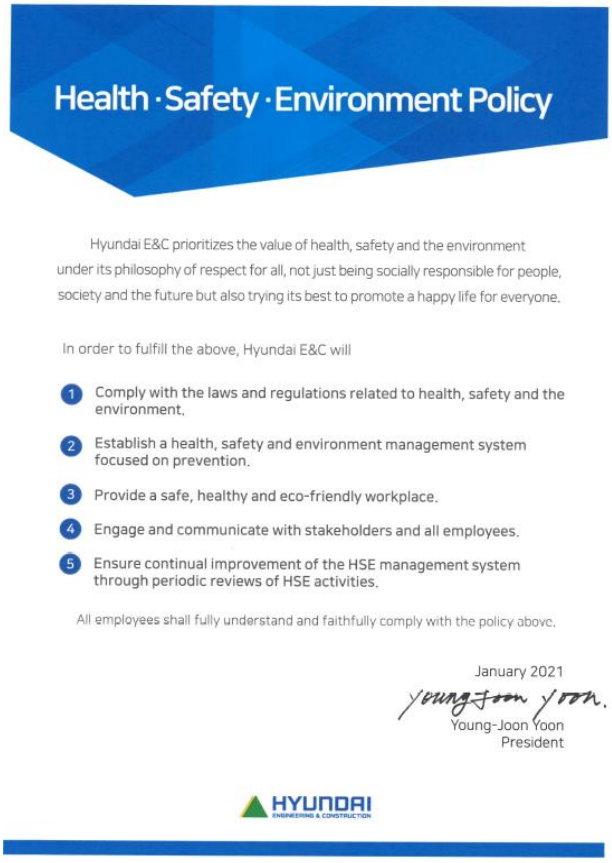
ANNEX 7.2 CONTRACTOR HSE POLICY AND OBJECTIVES STATEMENT



Health · Safety · Environment Policy

Hyundai E&C prioritizes the value of health, safety and the environment under its philosophy of respect for all, not just being socially responsible for people, society and the future but also trying its best to promote a happy life for everyone.

In order to fulfill the above, Hyundai E&C will

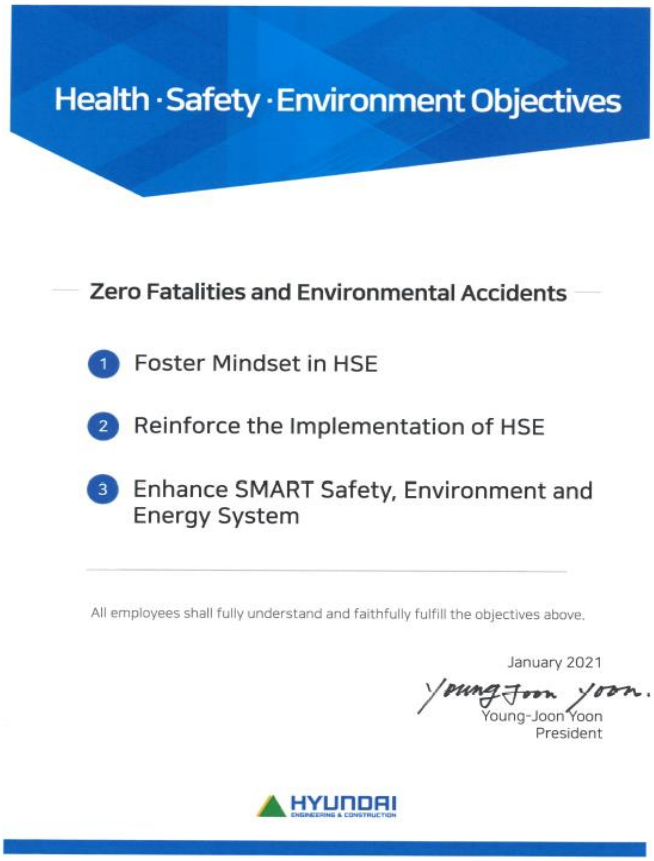
1. Comply with the laws and regulations related to health, safety and the environment.
2. Establish a health, safety and environment management system focused on prevention.
3. Provide a safe, healthy and eco-friendly workplace.
4. Engage and communicate with stakeholders and all employees.
5. Ensure continual improvement of the HSE management system through periodic reviews of HSE activities.

All employees shall fully understand and faithfully comply with the policy above.

January 2021

Young-Joon Yoon
President

HYUNDAI ENGINEERING & CONSTRUCTION



Health · Safety · Environment Objectives

Zero Fatalities and Environmental Accidents

1. Foster Mindset in HSE
2. Reinforce the Implementation of HSE
3. Enhance SMART Safety, Environment and Energy System

All employees shall fully understand and faithfully fulfill the objectives above.

January 2021

Young-Joon Yoon
President

HYUNDAI ENGINEERING & CONSTRUCTION

ANNEX 7.3 PROJECT ENVIRONMENTAL ORGANIZATION CHART