Jamaica Public Service Company Limited (JPS)

Request For Information (RFI) 945478

FOR

Site Assessment and System Design for the installation of Solar PV Panels

Table of Contents

Background

Jamaica Public Service Company Limited (JPS) is an integrated electric utility company engaged in the generation, transmission and distribution of electricity throughout the island of Jamaica. JPS owns and operates 28 generating units and also purchases power from seven Independent Power Producers (IPP). JPS assets include conventional thermal plants (611.5 MW), hydro and wind (32.5 MW), Hybrid Fly-Wheel and Batteries, 50 substations, approximately 1200 km of transmission lines and 20,534 km of distribution lines.

The Business Development Division is that arm of JPS charged with pursuing non-regulated energy opportunities arising in the Jamaican market. This would normally include energy efficiency and renewable energy related projects. Solar PV system is one of the focus at this time.

Objectives

The purpose of this Request for Information (RFI) is to identify suitable firms/individuals to conduct site assessments as the basis for the preparation of solar PV designs.

Based on information obtained from the applicable site assessment the contractor/designer should prepare electrical and mechanical drawings detailing all that is required for the solar PV contractor/installer to install the agreed solar PV system to meet all electrical and mechanical regulation for the optimum and safe operation of the system.

2 Scope

Site Assessment- Scope of Work

This assessment shall have the following activities/consideration to capture adequate site information.

a. Identification of a suitable area to install the solar PV array (roof or ground)
b. Via measurement confirm the available space/area.
c. Verify orientation of the identified area and if it properly allows south orientation.
d. Assess if the area is impacted by shading and if so, to what extent.
e. For roofs installations
    a. Establish the type of roof (metal, built-up, concrete, etc)
    b. Assess the condition of the roof and ascertain plans for replacement in the near term (cracked, brittle, corrosion, chalky, leaking, etc)
    c. Verify the type of support structures (truss, rafters, etc.)
    d. Check the inclination of the roof (latitude, etc)
    e. Observe if there are any obstructions (AC units, overhead lines, etc)
    f. Note the number of floors
f. For ground mount
    a. What is the grade of the land and drainage?
    b. Distance to load or interconnection point?
    c. Characteristics of the surroundings area and soil conditions?

    d. Will trenching be required?
    e. What is the tilt, angle, and orientation of the layout?
g. Identify location for all major components e.g., Inverters, batteries, isolation switches, etc.
h. Indicate if initial assessment suggest that electrical upgrade may be required or if there are any code violations.
i. Accessibility and safety considerations
    a. Fall avoidance/protection equipment.
    b. Proper grounding (available or required)
    c. Electrical clearance (NEC 110.26)
    d. Battery spill/gas precaution
j. Identify possible component/material storage or distribution area.

Solar PV System Design - Scope of Work

The Designer should be guided by the following scope outline. It is the responsibility of the designer/contractor to check and comply with all regulations and standards which apply to these works. The latest editions of the Standards, Codes and Recommendations issued by the following organizations must apply for the engineering and related activities regarding the designed system. This would include:

a. International Electro Technical Commission - IEC
b. National Electrical Code - NEC
c. Underwriters Laboratories Inc – UL

The designer shall only consider equipment and materials that are suitable for the intended use in consideration of the applicable operational and weather conditions. All materials and equipment shall be of a robust design and of proven technology. Unproven or prototype equipment or components are not acceptable.

<u>Solar PV Panes</u>
Panels would normally be preordered by JPS and like the general system should be earthed and provided full protection against lightning strikes.

<u>Inverters</u>
JPS has a preference for Fronius inverters given the staff that is factory trained and can support this inverter type. Other considerations are:

a. PV inverters shall have at least two (2) MPPT trackers.
b. The minimum Efficiency of the inverter shall be a minimum of 97.5%.
c. There must be earth connection of the inverter to the equipotential bonding conductor and to protective conductor of the AC side.
d. PV specific surge arrester shall be provided on the DC side.
e. AC Type surge arrestor shall be provided on the AC side.
f. Remote monitoring capability.
g. Inverters shall be suitable for the climatic conditions and with proven track record for similar projects.
h. The quoted inverter capacity shall be suitable for local ambient temperature.
i. Product warranty shall be minimum 5 years.

<u>AC Combiner Box and DC fuse Protection Box</u>
These should be at minimum IP65 whether installed inside or outside.

DC and AC Cables
The design should be guided by the following:

a. All cables and connectors used for the installation of the solar array must be of solar grade, robust and durable in harsh environmental conditions including high temperatures, UV radiation, rain, humidity and dirt as per IEC standards.
b. DC Cables - Outer sheath of cables shall be flame retardant, UV resistant.
c. Cable terminations shall be made with suitable cable lugs & sockets etc. as required, properly crimped and passed through brass compression type cable glands at the entry & exit point of enclosures, or equivalent.

Site Assessment - Deliverables

The resulting site assessment should produce the following which will form the basis for preparation of the initial system design drawings:

a. Single line sketch showing the existing site electrical layout from the metering point to the intended solar PV interconnection point. Detailing

    a. Main and subpanels and circuit breaker ratings
    b. Panels interconnection and estimation of wire sizes if accessible
    c. Changeover switches (if applicable) and how connected

b. Intended system location and mounting options and suggestion for interconnection.
c. Any preparation required before start of installation.
d. Sketch of the routing of any overhead, underground or through building wire runs.
e. Roof – suitability, orientation, etc.
f. Safety considerations
g. Major obstacles to design and installation
h. Estimation of systems production
i. Initial cost estimate
j. Preliminary economic analysis

Site Assessment Equipment
At minimum the designer should have assessment equipment which could include:

a. Camera
b. Tape measure
c. Ladder (as required)
d. Shade analysis equipment (e.g. Solar path finder)
e. Site survey check sheets and clipboard
f. Inclinometer
g. Compass

Solar PV System Design - Deliverables

The expected design deliverables should at minimum be the following:

a. Single line electrical drawing, with description notes.
b. Description of all major electrical item in terms of lengths, ratings and standards
c. Mechanical drawing showing panels layout, orientation, and connections.
d. BOM detailing all required items, their specifications, and quantities on a per site basis, taking into account the expected layout and component distances.
e. Include the provision for system shutdown on loss of JPS supply.
f. Include the option for system monitoring using a Smart Meter
g. Include any special requirements for cabling overhead, underground (trenching) or through buildings.

Post Installation Support
The Designer must as an additional service be available to assist with the checking, testing and commissioning into service of the installed solar PV system.

3 Deliverables and Schedules

JPS will review the initial submissions and select a group of "shortlisted" firms who will be invited to participate in the final submissions. Short-listed firms may also be required to make presentations to JPS.

The Calendar of Activities in ***Table 1*** below indicates the list of activities to be undertaken by JPS and the prospective consultants in order to meet the established schedule of the RFI

ITEMS	TASKS AND DELIVERABLES	END DATES	RESPONSIBILITY
01	RFI posted on JPS and Carilec websites	April 28, 2023	JPS
02	Respondents submit questions about the RFI	May 4, 2023	Vendor
03	Answers to Questions will be posted on JPS and Carilec websites	May 9, 2023	JPS
04	Respondents indicate intention to participate in RFI	May 15, 2023	Vendor
05	Access given to JPS FTP site	May 17, 2023	JPS
06	Respondents upload response to JPS FTP Site	11:59pm May 23 2023	Vendor
07	Private opening of submissions	May 24, 2023	JPS
08	Evaluation of submissions	May 24-31, 2023	JPS
09	Shortlisting and notification to respondents	June 6, 2023	JPS

4 Evaluation Criteria

The Evaluation Team, that is JPS, will evaluate the submissions of each Respondent. The selection of a Respondent for further consideration will be based on the Evaluation Team's judgment of the Respondent's potential to provide the outlined solar PV systems services. The selection will be based on an evaluation of

the submitted information and any additional information provided as a result of follow-up questions that may be posed by the Evaluation Team.

The evaluation criteria will include, but not be limited to, the following:

Technical Merit

• Technical Capability and Qualification

Commercial Merit

• Organizational Details (structure/staff)
• Financial Capabilities (insurance and audited/unaudited financial statements and tax compliance)

Evaluation Weighting

The evaluation will be as follows:

Technical (80%) – which will include but not be limited to the following components:

- Industry Experience (40%)
  - Number of similar jobs provide at least three (3) and preferably five (5) done in the last 3 years.
  - References for jobs done.
- Qualifications (20%)
  - Service specific experience, training, and certifications
- Support Systems (20%)
  - Analysis/simulation applications used and specialized support skills available as required eg. pvSol etc; Structural engineer, equipment etc.

Commercial (15%) – which will include but not be limited to the following best and final components:

- Organization details (number of service specific staff members and qualifications)

- Financial capabilities (tax compliance and financials)

Compliance (5%) – Respondent conforms with terms stated as required in RFI

Selection of Firms

Selection of the short-listed Respondents will be based on the evaluation's team assessment and ranking of the submissions received from the Respondents. Each submission will be evaluated and ranked giving the indicated weighting to both the technical aspects of the submission as well as the organization's structure and support details. Any submission not complying with the RFI instructions, and/or the required terms and conditions shall be considered a non-conforming submission. Non-conforming submissions may be excluded from further consideration.

5 General Instructions to Bidders

General

Respondents' submissions shall be prepared and submitted strictly in accordance with the instructions provided herein. Respondents, whose submissions are not prepared and submitted in accordance with these instructions, may be considered non-compliant and rejected.

Quotations or prices are not to be included in your submission for this RFI.

In all cases, JPS reserves the right to accept or reject submitted responses at its sole discretion without stating any cause or reason, and without any cost or liability or obligation on the part of the JPS. Throughout this RFI Document:

(a) "day" means calendar day.

Submittal Requirement

The Respondent shall submit make their submission via the designated FTP site, which is JPS Sharefile.

5.1.1 Internet RFI Platform

The Procuring Entity is utilizing a FTP site to facilitate the RFI process.

There are no license costs or usage fees to the Respondents for the use of the FTP site.

This will not be a reverse auction; instead this platform will simply provide the means to communicate your submissions to the Procuring Entity.

The website address of the FTP site will be provided to Respondents via email. Respondents are to upload files in responding to this RFI. Failure to do so may result in disqualification.

It is the responsibility of the Respondent to ensure that their submission is received by Procuring Entity (that is, uploaded to the FTP platform) by the due date and time. Any submission received after the stated date and time may be rejected.

5.1.2 File Transfer Protocol (FTP) Site Submittal Procedure

The Respondent's designated contact will be sent an email with detailed instructions on how to access the FTP site, including login credentials. This will provide access to an individual folder in which the submission package can be uploaded.

5.1.3 Communications

All submissions MUST be uploaded to the FTP website. All responses to this RFI are to be submitted in the English Language.

Observing the deadline to submit questions stated in the RFI calendar (Table 1), firms are invited to submit Technical questions via email as follows:

Email Subject: JPS RFI # 945478 - Site Assessment and System Design for the Installation of Solar PV Systems
To: Kolonje McKenzie komckenzie@jpsco.com
Copy: Dianne Plummer dplummer@jpsco.com

The Procuring Entity will then post both the technical question(s) and respective response(s) on JPS website, titled "Question and Answer". This will be completed by the date stated in RFI Calendar of Activities. The originating entity will remain anonymous but all RFI firms will see all questions and responses.

Any contact made directly with any other employees or board members of the Procuring Entity regarding this RFI is a violation of the terms of the RFI response criteria and may be cause for disqualifying an Entity at the sole discretion of the Procuring Entity.

Interpretation of RFI Document

The Procuring Entity will be the sole source of information regarding clarifications, interpretations, corrections, supplemental data, or changes to the proposal.

Noting the RFI calendar of activities, firms are requested to carefully examine and understand the RFI document and seek clarifications prior to submissions, if required, to ensure that they have understood the RFI.

Ethical Practices

JPS requires that firms, (including their respective officers, employees and agents), adhere to the highest ethical standards, and report to the (JPS) all suspected acts of fraud or corruption of which they have knowledge or become aware both during the RFI Process and throughout evaluation or selection process.

Eligible RFI Entity

An RFI entity may be a natural person, private entity, government-owned entity or any combination of such firms supported by a letter of intent to enter into an agreement or under an existing agreement in the form of a joint venture or association (JVA). In the case of a joint venture or association unless otherwise specified, all partners shall be jointly and severally liable.

The RFI entity, local or overseas should be tax compliant in the country of origin and or incorporation.

An entity, and all parties constituting the firm, may have the nationality of any country.

An Entity shall be deemed to have the nationality of a country if the respondent or Entity is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related Services.

Amendment to RFI Request

At any time prior to the deadline for submission, the Procuring Entity (JPS) may amend the RFI by issuing addenda.

Any addendum issued shall be part of the RFI and shall be communicated in writing to all who have obtained the RFI from the Procuring Entity.

To give prospective firms reasonable time in which to take an addendum into account in preparing their submissions, the Procuring Entity may, at its discretion, extend the deadline for the submission of RFI.

Cost of RFI

The Entity shall bear all costs associated with the preparation and submission of its documentation, and the Procuring Entity (JPS) shall not be responsible or liable for those costs, regardless of the conduct or outcome of the RFI process.

Language of RFI Responses

The Submissions, as well as all correspondence and documents relating to the submissions exchanged by the RFI Firm and the Procuring Entity, shall be written in the English language. Supporting documents and printed literature that are part of the Submissions may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language.

Firm's Experience and Qualifications

The Entity shall provide necessary experience details to establish that it has capacity to successfully supply these services.

Prospective Firms/Consultants shall demonstrate in their submissions that they meet the required qualifications and experiences and are fully capable of executing these services by demonstrating the following, whilst not limited to:

- The Entity/Respondent shall have a minimum of five (5) years' experience
- The Entity/Respondent's submission shall include demonstration of qualifications for service execution including, evidence of detailed projects for which services was appropriated/offered in at least three projects with similar requirement for which service is being sought and have been successfully completed in the last five (5) years.

RFI Entity Financials (Where applicable)

Respondents shall be financially solvent to undertake the services. This shall be evidenced by submission of complete audited/unaudited financial statement/Annual Report of the Entity for the last year of operation. If short-listed, the entity may be required to provide the last three (3) consecutive years of audited financial statements/annual report.

Corporate Resources

Firms shall provide information on the corporate management structure pertinent to the control and management of projects. General information should also be provided on corporate resources and capabilities required to support these services.

RFI Opening

The Procuring Entity (JPS) will open submissions privately.

Confidentiality

Information relating to the evaluation of the responses and recommendation of shortlisted Entities shall not be disclosed to firms or any other persons not officially concerned with such process until information is communicated to all firms.

Clarification of Proposals After Submission

To assist in the examination, evaluation, and comparison of the submissions, and qualification of the Respondents, the Procuring Entity may, at its discretion, ask any Entity for a clarification of its submission. Any clarification submitted by a Firm that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing.

If an Entity does not provide clarifications of its submission by the date and time set in the Procuring Entity's request for clarification, its submission may be rejected.

Reservation of Rights

In connection with this RFI, JPS reserves to itself all rights (which rights shall be exercisable by JPS in its sole discretion) available to it under applicable Jamaican laws, including without limitation, the following, with or without cause and with or without notice:

The right to cancel, withdraw, postpone or extend this RFI in whole or in part at any time prior to the execution by JPS of the any agreement, without incurring any obligations or liabilities.

The right to issue a new RFI.

Notification to Shortlisted Firms

JPS shall have the right to select Short-listed Firms or the preferred firms that, in JPS' sole judgment and discretion, has provided a submission that is in the best interests of and has the best value to JPS and its customers.

The Procuring Entity shall notify the shortlisted Firms in writing, that its submission has been accepted.

6 Form of Submittal Site Assessment and System Design for the Installation of Solar PV Systems

Each interested party shall submit responses to JPS with accurate file names/labels. Adobe pdf and Microsoft PowerPoint files are preferred. All responses shall address at a minimum and must include, but not limited to the following areas listed below:

1. Technical Information

- Demonstration of experience to execute the services.
- Proof of qualification for the services
- Staffing and structure to execute the services
- Supporting systems and equipment to execute the services
- Financial viability
- Post installation services capability e.g. commissioning

2. Commercial Information

I. Organization Details

- Company Experience
- Description of all completed projects and/or activities related
- List of past projects with similar scope
- Qualification of related Companies
- Ownership Structure
- Structure and Organization Chart

II. Financial Capabilities

- Last 3 years of Audited Financial Statements (Income Statements and Balance Sheets) of Firm, Parent Company, Partners and/or Consortium Members as applicable

Note to Vendors: No prices/costs are to be submitted in your proposals.

APPENDIX I

JPS CONTRACTOR OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT REQUIREMENT MANUAL

Terms of Reference Environment Requirements Manual

2022

Table of Contents

DEFINITIONS

Contract:	Any written agreement between the Company and a Contractor for the provision of services to the Company.
Contract Manager:	The Company Representative who has portfolio responsibility for the Contract.
Contractor:	Any company or person contracted for service as an independent entity to perform 3rd party short or long-term work for the Company.
Contractor Workers:	Contractor employees, servants, agents, contractors or subcontractors and consultants.
Company:	The Jamaica Public Service Company Limited (JPS) or any one of its subsidiaries and/or business units.
Company Representative	Any person or employee of the Company contracted or employed to perform short or long-term work and is primarily assigned to liaison with the Contractor or monitor the works or services being executed
HSE:	Health, Safety and Environment
ID Card:	Identification Card, issued by the Contractor to Workers
Incident:	Any act, event, injury, occurrence, unwanted release of energy, unwanted release of product or near miss that is not considered a normal operating procedure and/or an occurrence that results in worker injury, property damage or monetary loss.
JPS Worksite:	References to JPS Worksite includes; Company premises, property, job or project site, job and worksite. Any real property on which Contractor will be working, whether owned by Company or not, including facilities, offices, roads, parking lots, rights-of-way, customer premises or underground facilities
Near Miss:	An undesired event or a condition that, under slightly different circumstances, could have resulted in injury, damage or other loss.
Permit to work systems: documented	An operational procedure established to grant specific permission (permit-to-work) and authorization to a Supervisor, competent qualified person to allow the safe execution of work

in an area or on an equipment that are considered hazardous or non-routine.

Public Commercial Carrier: A public carrier's Licence issued by the Transport Authority in accordance with sections 78-89 of the Road Traffic Act.

Safety Orientation Card: A card issued to Contractor employees, confirming that they received orientation training for working on JPS Worksite. SOC are valid for one year.

Skills Training Certificate: An educational credit, certification or award issued by a qualified training provider in recognition of a person attaining a measureable technical or occupational skills necessary to perform work in a specified occupation or profession.

SOW (Scope of Work): Includes the purpose of a project and project definition to reduce and ultimately eliminate ambiguity. Scope planning will demonstrate clear, detailed communication among the project stakeholders that results in a clearly defined project with little misinterpretation. Specific project tasks, critical dates, and quality control measures are identified during scope development and project definition.

Supervisor: Named Contractor representative with responsibility to lead and Direct work activity related to the Contract. Includes Project Manager (PM), Supervisor, Lead, Foreman and / or Manager that is responsible to direct and oversea Contractor Workers, project scope activities. They are accountable for applying knowledge, skills, tools, resources, and techniques to all project activities, ensuring that project results meet the Company needs and expectations.

Tailboard Conference: A discussion/meeting conducted by work crew to outline the job description, the major steps associated to complete the job, the hazards associated with the step for the job and the control measures, barriers and PPE necessary to complete the job safely.

Work: Any and all services, acts, obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by Contractor under the Contract Documents, including the furnishing of all labour, services, materials, equipment and other incidentals.

Workers: Contractor employees, servants, agents, contractors or sub-contractors and consultants.

INTRODUCTION

JPS is committed to providing a **safe and healthy** work environment for all staff, 3rd party contractors and suppliers. The application of relevant rules and procedures that will promote accident free performance at our workplace is critical. It is in keeping with this mind-set that the Company has developed this Contractor Occupational Health, Safety and Environment Requirements Manual.

This manual provides the Company Contractors with the minimum health, safety and environmental (HSE) standards required while working on JPS Worksite.

Noncompliance of HSE standards or any requirement of this manual is treated the same as non-compliance with any contract provision and may result in work stoppage, disciplinary action, and or Contractor removal from JPS Worksite. Severe breach and or repeated non-compliance may result in greater punitive action and may lead to Contractor dismissal and Contract termination.

The Company requires that Contractors meet all guidelines outlined of this manual in addition to Pre-Job Requirements, prior to commencing any work on JPS Worksite. As a part of this commitment, the Company ensures that Contractors are aware of its policies, standards and requires Contactors to comply with the Company standards. It is the responsibility of the Contractor to ensure that all their Workers fully comply with JPS HSE requirements.

Contractor is responsible for complying with all laws and regulations applicable to occupational health, safety, environment and requirements of the Contract. Contractor must also comply with the requirements listed in the Contractor Occupational Health, Safety and Environment Requirement Manual and any site-specific and/or business unit policies and procedures that are applicable in the contracted Scope of Work. It is the Contractor's continuing and absolute responsibility for all aspects of Contractor safety on JPS Worksites during the execution of work. Contractors are important resource of the Company and it is necessary that they know HSE norms and ensure healthy and safety practices in JPS.

OBJECTIVE

1. To establish and communicate JPS' HSE expectations and standards to its external contractors.
2. To encourage the contractor to align their HSE practices to meet the JPS' HSE standards.
3. To reduce the actual and potential risks from contractor activities.
4. To prevent injury, property damage and improve the overall JPS' HSE performance.
5. To provide clear guidelines of applicable sanctions for HSE breaches.

The purpose of this manual is to establish, implement and execute a practical, sound and effective program for the prevention of incidents that cause or may cause injury to person

or damage to property. These safety requirements have been designed to assist all Contractors, their supervisors and workers to identify, evaluate, and subsequently adopt control measures in various activities or conditions to reduce the possibility of any undesired incident within their respective areas of contract responsibility.

SCOPE

All Company Contractors and their Workers, vendors, and visitors are bound by this manual when performing work which include but is not limited to short term, long term, civil, mechanical, electrical, vegetation and general contractors engaged to perform any job on JPS Worksite where work is being conducted by or/on behalf of the Company.

The standards presented in this document are not an exhaustive list of all applicable requirements and regulations. As a general rule, Contractor must refer to the current version of the APPA Safety Manual for additional electric utility specific safety requirements. In instances where the APPA Safety Manual indicate that you refer to the "utility specific policy" please consult the relevant JPS policies that will provide more details on the specific work procedure in question. In cases where there is a conflict with the JPS specific policy and APPA, comply with the most stringent requirement. Also of note, in cases where the APPA Safety Manual refer to any legislation that contradicts with the laws of Jamaica, in such cases the Jamaican law take precedent. For example, APPA gives references to driving on the right, the Jamaican law dictates that we drive on the left.

This manual shall be read and construed in accordance with the Contract by which a contractor is engaged. However, in the event of a conflict between this manual and such Contract, the terms of the Contract shall prevail.

Amendment to the requirements included in this manual can only be done with the explicit and written authorization of the JPS Senior Vice President responsible for Safety.

JPS ENVIRONMENT, HEALTH & SAFETY POLICY

At JPS we incorporate safety, health and sound environmental practices into our business every day. Our policy is to provide a safe work environment, to apply a set of rules and procedures to promote the accident-free performance of duties, and to make employees conscious of their responsibility in integrating safety, health and good environmental practices in their activities.

We define our commitment to EHS by the following principles:

- We manage our business with an active commitment to environment, health and safety excellence
- We integrate environment, health and safety into our business strategies to enhance our competitive advantage
- We comply with applicable environment, health and safety laws and regulations and implement prudent standards where none exist

- We hold each employee and contractor accountable for integrating environment, health and safety into their work activities. We encourage our business partners to adopt same accountability
- We strive for continuous improvement in our environment, health and safety program by setting challenging goals, measuring and evaluating performances, and learning from our experiences.

JPS HSE REQUIREMENTS - PREREQUISITE FOR CONTRACTOR SELECTION & ENGAGEMENT

Prior to the engagement of any contractor or 3rd party contracting firm, the contractor shall demonstrate that their company/firm have an established safety management systems and standards governing all aspect of their operations inclusive of the services being offered to JPS. Safety maturity of the 3rd party firm will be heavily weighted in the Company contractor selection criteria. The contractor's safety standard will be judged by the following attributes:

- The contractor's safety commitment, as demonstrated by its own safety programs supported by their top management.
- Experience profile of the contractor, its supervisor and workmen.
- Good historical safety performance of the contractor as can be evaluated through data tracking or through documentary evidence submitted by the contractor such as accident data, near-miss data, safety audit records, safety violation during the job, system of safety training, hazard identification and mitigation plan, safety meeting, safety promotion program, safety enforcement and disciplinary action plan, safety standard available with contractor for similar jobs etc.
- Availability of Personnel Protective Equipment (PPE), safety devices and equipment with the contractor.
- Availability of qualified and skilled safety personnel with the contractor to monitor safety performance during the progress of the job.

Contractors and or 3rd party contracting firms are required to submit to the Company documents with the information above. Information on the Contractor safety history and performance is required as part of the Contractor pre/post bid or contract engagement qualification process.

- After completion of assigned Scope of Work (SOW) as per contract, the contractor EHS performance will be evaluated & a contractor assessment form completed by the responsible Contract Manager or Company Representative. Contractor assessment form must be per format attached in Appendix E. Information captured on this assessment form will be used in future assessments during selection of contractor for job allocation.

CONTRACTOR' MANAGEMENT GENERAL RESPONSIBILITIES

The Contractor management shall accept the responsibility for Safety, Health & Environment Management of their company and shall be responsible and accountable for all, staff and all persons engaged by them. The contractor management must:

A. Ensure that Environment, Health & Safety is it first priority in the operations of its business.
B. Ensure compliance with all applicable Codes, Standards & Safety practices in all activities.
C. Ensure that all persons engaged by contractor are fully informed about the requirements of this manual and ensure strict compliance of safety orders/rules issued by the Company.
D. Provide medical certification as verification that employees are fit for duty or to perform work.
E. Provide and maintain, adequate tools, equipment, PPE, safety devices and in proper working order.
F. Provide all necessary resources for full Occupational Health, Safety and Environmental compliance with job or site rules.
G. Ensure each employee abstain from unsafe acts and prevent unsafe conditions.
H. Make It compulsory for all employees to take active part on safety & health related activities on & off the job.
I. Ensure compliance with Permit to work systems.
J. Ensure use of Personnel Protective Equipment (PPE) is compulsory while at work.
K. Ensure quality is maintained in all areas of activities.
L. Ensure that vehicle operators are conducting regular vehicle safety inspections and notifying management of identified deficiencies. (Refer to Table 2)
M. Ensure that all vehicles operated, owned and or leased by the contractor assigned to JPS Worksite are duly licensed as a Public Commercial Carrier, in accordance with the Road Traffic Act and any amendments thereto.
N. Take the necessary steps during the implementation of work activities at JPS Worksite to keep the environs clean and ensure that upon completion of the works the site and environs are left in a neat and clean condition.

TRAINING & SAFETY ORIENTATION

The Contractor shall:

A. Ensure that all employees and all persons engaged are appropriately trained and/or certified to carry out their assigned activities and tasks associated with the Contract.

B. Ensure that each Contractor Worker engaged to work on a JPS Worksite received JPS Safety Orientation before they are assigned to work on JPS Worksite.
C. Ensure that each Supervisor assigned to work on JPS Worksite is specifically trained in how to conduct Tailboard Conference Meeting/Safety Talk.
D. Maintain training records for all its Workers. Training records shall include the training and safety orientation history of each of the Contractor Workers and schedule for refresher training. Training records for each Contractor Worker assigned to work on a JPS Worksite are to be submitted to the Company on request and/or prior to contract signing.
E. Submit to the Contract Manager or Company Representative proof of the required training for all workers prior to the start of the contract or for any new worker that is employed to the contractor subsequent to the agreement and is required to perform work on JPS Worksite. Proof of refresher training must be submitted when it is due. *(Refer to Appendix C - Type of Contract, Training, & Frequency of Refresher).* Proof of training must include certification or certificate of participation
F. Issue a photo ID Card to each of its Worker. Issuance of an ID card is more of a security issue than a safety issue. However, this system can also be used effectively for safety interventions. Following may be adapted to use the ID Card for safety controls specific to JPS Safety Orientation:
    a. Photo ID Card should contain identification marks and can be referred for future administrative controls.
    b. After imparting safety orientation trainings, the ID Card can be stamped as 'Safety Orientation given' or separate Safety Orientation Card may be issued by the Company to the Contractor Worker.
    c. The validity of such "Safety Orientation Card" shall be maximum one year.
    d. Safety Orientation Card should be similar in size and dimension as that of an ID card, and each Contractor Worker must have it available for the Company Representative to view at all times when on JPS Worksites.
    e. The stamping of an ID Card or issuance of a Safety Orientation Card, shall not replace the Skills Training Certificate required for qualified Workers.

    No Contractor Worker must conduct any work activity on JPS Worksite without first completing JPS Safety Orientation and the stamping of their ID Card or received a signed Safety Orientation Card from the Company.

Tailboard Conference Meeting/Safety Talk Training

Contractor supervisory personnel must be specifically trained in how to conduct Tailboard Conference Meeting/Safety Talks.

The Contractor should ensure that the training program include the following:

- Hazard identification
- Safety standards and procedures relevant for carrying out jobs.

- Special precaution or hazards controls measures specific for worksite based on its hazard perception.
- Use of PPEs in general and any special PPE specific for a particular job.
- Energy source control

HSE MANAGEMENT SYSTEM

Contractor must have a defined Health, Safety & Environmental Management system in place aligned to the Company requirements and demonstrate that it is implemented effectively. It should typically cover the following elements:

- Leadership & Commitment by higher management.
- HSE Policy
- Organization, Resources & Documentation related to HSE.
- Evaluation & Risk Management.
- Planning & Procedure.
- Implementation & Monitoring.
- Auditing & Review.

The contractor should have an HSE policy backed by their management's commitment to create a safe work environment. The policy should state the intention and methodology of protecting the personnel at work site. Contractor shall demonstrate their HSE commitment in protecting the people, environment and assets by implementing the HSE Management system and various HSE programs that support their HSE Policy.

HSE PLANS

The purpose of the HSE plan is to provide assurance of effective working of the interface between the HSE Management Systems of JPS and contractors at specific work/project sites. Prior to the commencement of contractual activity or bid submission, the contractor shall submit a written Project-specific/Work Specific HSE plan to JPS for review and approval. Contractor shall prepare the Project HSE plan addressing all work activities, to include hazards and risk assessments, controls methods, training needs identification, audits and safety promotional activities.

The Contractor's Project specific plan shall address the following:

- Title page
- Project title and brief scope of work
- Organization chart
- Hazard identification plan (clearly identifying project related HSE risks, control measures and persons responsible)
- Safety & Environmental policy and assignment of responsibilities
- HSE Training plan
- Management of subcontractors
- Safety inspections
- Safety reports and records

- Welding and cutting equipment
- Personal protective equipment
- Tools and portable power tools
- Ladders
- Electrical installation and equipment
- Cranes and rigging equipment
- Mechanical equipment
- Transportation
- Incident reporting and investigation
- Excavation
- Fire prevention
- First-aid facilities
- General safety rules
- Emergency response and evacuation procedures
- Environmental regulatory compliance requirements and compliance process
- Manual Handling
- Checklists

SUPERVISION & EHS COVERAGE

The Contractor shall:

a. Ensure that the necessary and required supervision and EHS coverage are in place for all jobs and activities.
b. provide a separate and independent designated, competent HSE Officer for projects and worksites with ten (10) or more persons as outlined in Table #1 below.
c. Appoint a Supervisor for all jobs, provide direct supervision, and give instructions to its Workers. For the avoidance of doubt, JPS shall have no responsibility for direct Worksite supervision of contractor employees.
d. Prior the start of each contract, Contractor shall submit to the Company its HSE organization chart detailing the names of Superiors and Safety professionals for review and approval.

Responsibility of Line Supervisor/Foreman

The line supervisor/foreman is the contractor's representative with full responsibility for the contractor employees. For the avoidance of doubt, JPS have no responsibility for direct worksite supervision of contractor employees or to give direct instruction to them.
This position is responsible for:

- Taking direct and specific job field instructions from JPS representative. For the avoidance of doubt, JPS have no responsibility to give job instruction directly to contractor employees below the supervisor level.
- Provide worksite supervision and instruction to contractor employees, servants, agents and/or sub-contractors.

- Conducting job briefings and hazard identifications exercise prior to the start of all jobs.
- Ensuring that all affected workers are fully briefed, that they acknowledge and sign the relevant tailboard forms
- Ensuring that all workers are fully compliant with the PPE requirements for each task.
- Updating the JPS representative promptly on the progress of assigned work to include OHSE related matters.
- Bringing to the attention of JPS any previously unidentified or any new risks that requires additional controls by JPS to avoid injury to anyone.

Responsibility of HSE Officer

This position is responsible for:

- Ensuring all the workmen & supervisor are provided with safety gears (Safety shoes, safety helmet, cover all & other job specific PPE's).
- HSE training (organize the training programs as per the training matrix).
- Daily workplace safety inspections (to identify unsafe acts, unsafe conditions and take necessary actions).
- Identification of hazards and environmental impacts.
- Inspection of PPEs, tools / lifting accessories / slings / ropes/web belts/ D-shackles etc. (visual inspection once in week for their soundness and validity).
- Maintain daily HSE logbook (site HSE observations and preventive actions taken).
- Checking availability of safety work permit & review of work permits as per permit conditions.
- Reporting of near miss incident, first aid & other incident.
- Identifying and correcting unsafe behaviours at work site.
- Training to their staff, supervisor & workmen regarding the operation & maintenance of Firefighting equipment.
- Ensuring tailboard conference meeting Is conducted for each job.
- Daily Safety Talk must be conducted for work men

Responsibility of HSE Manager

Contractor's HSE Manager assumes the lead safety position for the contractor organization and is responsible for monitoring and administering a pro-active safety program designed to provide assistance in recognizing, evaluating, and subsequently controlling or eliminating hazardous acts or conditions. He/she works in close coordination with JPS HSE Management and in conjunction with his / her Principal employer assisting in the implementation of HSE programs. Broadly the responsibilities of the HSE Manager are:

- Administer appropriate safe work practices and procedures within the worksite.

- Ensure that necessary records are maintained as per applicable HSE regulatory requirements and reports are submitted to statutory bodies as per the timelines defined by them in the applicable acts / rules.
- Ensure that all mobile lifting appliances are subjected to third party inspections as per statutory requirement & records are maintained by the Contractor.
- Promote a high level of safety awareness among the staff/workers through orientation/refresher training programs.
- Conduct site safety visits.
- Ensure compliance with permit to work system.
- Ensure safety gears (safety shoes, safety helmet, cover all & other job specific PPE's) by all the workmen & supervisor at job site.
- Ensure Certification & testing of Safety equipment & PPE's.
- Conduct weekly safety inspections, track performance and report trends to his/her site management.
- Maintain all HSE related records and files associated with the organization.
- Maintain pertinent information (i.e. phone number, locations) of emergency response services, physicians, and hospitals.
- Lead and assist in accident & incident investigations to ensure all accidents and incidents are properly investigated including near miss incidents, first aid cases, all recordable cases, property damage, etc. & reporting to the Company safety executive.
- Evaluate subcontractor safety programs and performance and ensure they comply with the statutory and HSE requirements
- Training to their staff, supervisor & workmen regarding the operation & maintenance of firefighting equipment

The minimum qualification for Contractor supervisor and safety personnel

Line Supervisor/Foreman

- Minimum qualification must be Diploma in Engineering (Mechanical, Chemical, Electrical, Civil) and Safety Certification (minimum 30 hour HSE training) from a recognized institution.

HSE Officer

- Must be qualified as a Certified Occupational Safety Specialist from a recognized institution.

HSE Manager

- Minimum qualification must be an Undergraduate Bachelor's Degree in Occupational Safety & Health Safety) or a Degree in Engineering (Mechanical, Electrical, Civil or Chemical) and qualified as a Certified Occupational Safety Specialist.

- Having two years of experience as a Safety Officer in the electric utility, oil & gas or chemical industry.

Table #1: Typical requirement for number of Trained Dedicated Supervisory and Safety personnel

Item #	Employee Complement (Including subcontractor/s)	Minimum Requirement of HSE Personnel
1	Number of Employees < 10	➢ Line Supervisor for each team working independently.
2	Number of Employees ≥ 10 ≤ 25	➢ Line Supervisor for each team working independently + ➢ 1 x HSE Officer ➢ HSE Officer to randomly visit worksite from time to time.
3	Number of Employees > 25 but < 50	➢ Line Supervisor for each team working independently + ➢ 2 x HSE Officer
4	Number of Employees ≥ 50	➢ Line Supervisor for each team working independently+ ➢ 1 x HSE Officer for every 25 Employees + ➢ 1 x HSE Safety Manager for every 75 workers

WORK PREPARATION MEETING

The Contractor shall:

- participate in a work preparation meeting (Prep Work or Kick Off Meeting) with JPS Representative for planned jobs or projects, to discuss among other things OHSE expectations, potential OHSE management system interfaces and specific OHSE issues and requirements in accordance with the Contract. This preparation meeting will be held as soon as practical after contract award and an appropriate time before the performance of any planned work. This meeting shall not be considered or treated as a substitute for EHS responsibilities of the Contractor under the Contract; nor shall the meeting or issues be construed or treated as an assumption of the Contractor's sole EHS obligations under the Contract. Matters to be discussed at the meeting may include but not limited to:
  a. Scope of the job
  b. Expected duration of job
  c. Risk Assessment- Hazards associated with the job – complete JSA

Tailboard Conference

The Supervisor must conduct a Tailboard Conference Meeting with the Workers involved before the start of each job. Each worker should actively participate in the meeting to identify job and task specific probable hazards and determine and agree on the appropriate controls and planned mitigation measures to be taken. The meeting should:

- Review the job activity at a task level and the procedure to execute the tasks safely.
- Identify the use & benefits of PPE's & safety gears required for the job.
- Identify any environmental challenges and determine how to treat with same during the execution of the job.
- Be documented on an approved Tailboard Conference Form and each Worker involved sign onto the form indicating that they were part of the discussions, understand the possible hazards and will abide by the agreed procedures.

At the end of the work activities and or if a worker is no longer participating in the work, before they leave the JPS Worksite, each Worker must sign-off, on the form indicating that they are no longer involved with work relating that specific tailboard.

Permit to Work System

The Contractor Supervisor should ensure that:

- They have received training in the permit to permit to work system for affected workers for the specific job they are assigned. Permit to work should include but not limited to Lock Out Tag Out (LOTO PTW), Sanction for Test, Limitation of Access, De energize Permit, Hot Work Permit & Confine Space
- The affected workers received adequate instruction in the system.
- They discuss the job fully with the person issuing the permit.
- The workmen are briefed on the details of the permit including any potential hazards, and on all the precautions taken or to be taken.
- The precautions are maintained throughout the work activity.
- The worker understands that if circumstances change work must be stopped and inform the supervisor.
- The work group stays within the limitations set on the permit (physical boundaries, type of work and the duration of the permit)

On completion or suspension of the work, the site is left in a safe condition and the person that issued the permit is informed & permit has been returned for cancellation.
Individuals working within the permit to work system should ensure that:

- They have received instruction and have a good understanding of the permit to work system at the specific JPS Worksite where they work.
- They do not start any work requiring a permit, until it has been properly authorized and issued.

- They receive a briefing from the supervisor on the particular task and they understand the hazards and the precautions taken or to be taken
- They follow the instructions specified in the permit. When they stop work, the site and any equipment they are using is left in a safe condition
- If in any doubt or if circumstances change, they must stop work and consult with their supervisor.

Worksite Safety

It is the responsibility of each Contractor or his authorized nominated representative to inspect each work area at the beginning of each job or shift, and periodically thereafter, to ensure safe working conditions are maintained.
Where required, Contractor must provide good illumination for work to proceed safely.
Contractor must ensure protection from severe weather conditions. (Extreme wind, lightning storms, extreme heat, etc...).
The Contractor needs to evaluate /consider the environmental extremes of the project, such as the ability of their workers to work safely in volatile areas.
Based on that evaluation the Contractor must implement the appropriate procedures or measures to provide a safe work environment.
The minimum PPE requirement on a worksite must be safety helmet, safety glasses, safety boot and uniform. Other appropriate steps must be taken and the appropriate PPEs worn to protect against all hazards that affects workers on the jobsite.

Work Clothing

Only clothing and PPEs adhering to specification shown in Appendix B shall be worn on JPS Worksite.
At least once per year, the Contractor must provide or ensure Workers & Supervisors, have a minimum of two (2) 100% cotton uniform or coverall and one safety shoe for working at JPS Worksite.

Where hazards exist due to moving parts on machinery or equipment, clothing and hair must be maintained to avoid entanglement.

Special PPE and work clothing must be worn where exposure to fire, extreme heat, corrosive chemicals, electrical hazards, body impacts, cuts from handled materials or other hazards are possible. See the premises or business unit's site-specific requirements for any additional needs, such as Fire-Resistant Clothing (FRC). The Contractor is required to supply special work clothing, ensure it is in good condition and properly worn, when and where required.

SITE SECURITY

Where applicable the Contractor shall:

- comply with all Security and Standard Operating Procedures when accessing and working on the plant, electrical system and/or equipment.
- ensure all vehicles entering the JPS plant shall undergo required security checks to include searches.

ALCOHOL, ILLEGAL DRUGS AND FIREARMS

Contractor must develop and enforce a policy that prohibits the possession, distribution, promotion, manufacture, sale, and use of illegal drugs, drug paraphernalia, controlled substances, alcoholic beverages and weapons by workers while on JPS Worksite or during work at site.

ACCIDENT/ INCIDENT NOTIFICATION, REPORTING & INVESTIGATION

The Contractor shall:

a. immediately report to the responsible Company Representative or Contract Manager via electronic mail, text message, verbal or telephone, etc. all accidents/OHSE incidents including near misses, arising from the works and/or involving Contractor personnel, equipment and materials at the JPS Worksite. In instances where reports cannot be done immediately, reports must be made no later than 2 hours after the occurrence of the incident.

b. within 24 hours of the occurrence of any accident/incident provide JPS with a written Preliminary Accident/Incident Report. The JPS Preliminary Incident Report Form shown in Appendix D must be used for such reports. All fields on the Form must be completed.

c. investigate all accidents/incidents that result in, or have the potential to result in, injury or illness, property damage, process/product loss or harm to the environment.

   The investigative process must include the identification of root causes or causal factors that contributed to the occurrence. The Contractor must determine and document the necessary corrective actions and ensure closure/completion in timely manner. In addition to the Contractor's analysis/investigation, JPS retains the right to conduct their own investigation for any illnesses, injuries, fatalities, incidents or near misses occurring on its premises and or project sites.

   The Contractor must conduct a thorough investigation and submit a written report within 5 – 10 working days after the occurrence of the accident/incident to the JPS Representative, Contract Manager and or other JPS personnel as otherwise specified.

d. Accidents resulting in injury to employees leading to absence from work for more than to (2) days should be reported to the relevant agencies or regulatory bodies in

a timely manner as prescribed by the prevailing laws and regulations. The contractor shall submit copy of the statutory report to JPS representative as well.

e. maintain injury logs for their respective workers.

Incident Investigation format attached at Appendix F

AUDITS & INSPECTION

The Contractor shall:

- Ensure that management Safety Audits are carried out [quarterly] and findings are documented for follow up actions.
- Conduct job site inspections, audits, and safety observations (i.e. Behaviour Based Safety Observations, etc.).
- Log audits, inspections and observations in the JPS Health and Safety Portal – ASSURE by using the link below (https://app.na.sheassure.net/jps/p/jpsPortal/).
- Inspections and audits done using templates outside of the Assure Portal must be submitted to the Contract Manager on a weekly basis.
- Conduct inspections and audits based on the frequency prescribed below:

Table 2: Audits and Inspection Frequency

Reports	**Frequency**	**Report Schedule**	**Medium**
Jobsite Inspection-Maintenance Work	Daily	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Jobsite Inspection-Emergency Work	One per shift	5pm each day/end of shift	JPS Assure Platform/ submit to Contract Manager & OHSE
PPE & Safety Device Inspections	Weekly	Fridays at 5pm	JPS Assure Platform/ submit to Contract Manager & OHSE
Tools and Equipment Inspections	Weekly	Fridays at 5pm	JPS Assure Platform/ submit to Contract Manager & OHSE
Safety Observation	Daily	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Vehicle	Daily (Job site)	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Safety Management Audit	Quarterly	Last Friday each quarter @ 5pm	Submit to Contract Manager & OHSE

SANCTIONS

The Contractor shall:
Comply with all OHSE Requirement prescribed in the Contract and this manual.
If any Contractor allows workers to work in unsafe conditions or violates environmental permits or regulations, JPS may remove the Contractor or any of its individual worker from JPS Worksite or penalty/sanction may be imposed to the Contractor and or Contractor Worker as per Table 3 below.
Immediate and permanent removal may occur (the Contactor or Worker) if any of the following activities are observed:

a. Openly exhibits disregard, defiance, or disrespect for the safety program
b. Violates established safety or environmental rules, regulations, procedures or codes
c. Participates in fighting, violence, threats of violence, theft, or destruction of property
d. Possesses weapons including but not limited to firearms or knives not typically used in conjunction with normal work tasks.
e. Falsifying documents or information.
f. Contractor provide the Company false information during the pre-selection process.

Table 3 – Sanctions for Breach of OHSE Requirements/ Procedures

Violation	**First Offence**	**Second Offence**	**Third Offence**	**Forth Offence**
Failure to comply with OHSE Requirements	Verbal Warning	Written Warning	Three months Suspension of contract	Termination of contract

SAFETY MEETINGS

The Contractor shall:

Conduct weekly safety meeting or ensure employees participate in JPS Weekly Safety Meetings. The contractor must ensure that each employee is exposed to a minimum of three safety meeting per month. When conducting safety meetings, the duration of the meeting may be as long as required but no less than the minimum thirty- (30) minutes.

All safety meetings conducted shall be fully documented. The record shall indicate the time, date, the location of the meeting, agenda/topic(s) covered, duration, who conducted the meeting, ideas developed, follow-up action required and responsibility and the names and signature of all attendees. The Meetings minutes and record of attendees shall be maintained for submission to the Contract Manager on a weekly basis. See appendix G for a copy of Safety Meeting Report Template.

APPENDICES

Appendix A - Vehicle Traffic Management & Transporting Equipment

1. Poles, ladders, pipe, etc., shall be loaded parallel with the truck length. Such material shall not extend beyond the normal sides of the vehicle.

2. materials shall be securely fastened to prevent a hazard due to shifting.

3. A person shall not operate on a road a motor vehicle laden or unladen, where the overall height of which exceeds 4.2 metres measured from the ground.

4. Vehicle transporting oversized equipment (height, length and width) must have adequate warning signs, reflector and pilot escort where necessary in accordance with the local road traffic regulation.

5. Any motor vehicle transporting a load which extends more than 102 mm (4 inches) beyond the overall width of the motor vehicle shall be equipped with the following lamps in addition to other required lamps when operated during the hours when headlamps are required to be used:
    a. (1) The foremost edge of that portion of the load which projects beyond the side of the vehicle shall be marked (at its outermost extremity) with an amber lamp visible from the front and side;
    b. (2) The rearmost edge of that portion of the load which projects beyond the side of the vehicle shall be marked (at its outermost extremity) with a red lamp visible from the rear and side;
    c. (3) If the projecting load does not measure more than 914 mm (3 feet) from front to rear, it shall be marked with an amber lamp visible from the front, both sides, and rear, except that if the projection is located at or near the rear it shall be marked by a red lamp visible from front, side and rear.

6. Material being transported such as poles that extends more than 4 feet beyond the front or rear of the vehicle shall have these projections marked as follows when the vehicle is operated during the hours when headlamps are required to be used:
    a. On each side of the projecting load, one red side marker lamp, visible from the side, located so as to indicate maximum overhang.
    b. On the rear of the projecting load, two red lamps, visible from the rear, one at each side; and two red reflectors visible from the rear, one at each side, located so as to indicate maximum width

Appendix B - JPS Safety & Health Guidelines - Personnel Protective Equipment & Safety Devices

PPE	Applicable Standard	Equivalent Type of PPE
Helmet	ANSI/ISEA Z89.1-2014 Standard Class E (Electrical)	 MSA V- Guard helmet w/ ratchet suspension
Safety Goggles	ANSI /ISEA Z87.1 – 2020 (CE EN 166 and CSA 94 standards	  American Allsafe Googles
Safety Boot	ASTM 2413-11 & ASTM 2412-11 (EH, I/75 & C75) or Equivalent Local Standard	 Timberland Pro 6” Endurance Waterproof Boot
Respirator	NIOSH – 42CFR Part 84 OSHA – 29 CFR 1910.134 ANSI / ASSE Z88.2	 3M Full Face piece Respirator Pack (cartridge) for protection against eye irritants. Half respirator where there is no eye irritant.
Safety Glasses	ANSI Z 87.1 – 2010 (CE EN 166 and CSA A94 standards)	 Salisbury Uvex XC Safety Glasses Clear Lens TS56505

PPE	Applicable Standard	Equivalent Type of PPE
Rubber Gloves Class 0	ASTM D120 and IEC/EN 60903, NFPA 70E	 Salisbury E014Y
Rubber Gloves Class 3	ASTM D120 - 09 and IEC/EN 60903;2014 NFPA 70E	 Salisbury E318CYB/ Novax 155-3-18
Chemical Protecting Clothing	Fabric tested as per BIS 4051-1981 standards. Chemical resistant material to include PVC, polyurethane, nitrile or neoprene	 3M Protective Coverall 4520
ARD Reflective Safety Vest	ANSI 107 – 2010 – High Visibility ANSI Class 2 rating for high visibility on roads with traffic traveling above 30 mph.	 CJ Safety ANSI Class 2 High Visibility Two Tone Safety Vest - Meets ANSI/ISEA 107-2010
Arc Flash & Flame Resistant Rain Wear	ASTM F 1891– Flame retardant ATPV rating of 8 cal/cm² PVC Nomex® Rain Suit meets Class 3 ANSI/ISEA 107-2010 standards	 402STLM SAFETY RAINGEAR
Flame Resistant Clothing	NFPA 70E, ASTM F 1506, ASTM F 1959 ATPV rating of 8 cal/cm²	 Coverall (Aramark Style G01083)
Lineman Gloves	Palm and back of gloves should be made from high quality grain cow-hide material. Cuff should be made of natural pig skin.	

PPE	Applicable Standard	Equivalent Type of PPE
		Salisbury Lineman Cowhide Work Gloves LW2SPE
Chemical Gloves	PVC/Nitrile blend, Double Dipped 40cm	 Chemstar Double-dipped, 40 cm
Dexterity Workman Gloves	Palm of gloves made of nitrile that is resistant to chemical and oil	 3M Comfort Grip
Rain Wear (Suit) (Non-FR)	ANSI/ISEA 107-2010. Class 3	 Fonnira -PVC/Polyester high visibility rain gear
Harness	ANSI Z359.1 - 2016, ANSI/ASSE A10.32 and OSHA 1926 Subpart M	 Honeywell Duraflex Webbing Harness Part # M1020073
Lanyard	ANSI Z359.1, ANSI A10.14 and OSHA 1926.104, ASTM F887-04	 Arc Flash EZ-STOP II Shock Absorbing Lanyard from DBI/SALA
Welding Apron and Sleeve	ISO 11611:2015. Providing exceptional heat, spark and spatter resistance	 QeeLink Welding Apron

PPE	Applicable Standard	Equivalent Type of PPE
Flame Resistant Face Shield with Helmet Slot Adaptor	ANSI Z89.1 – 2003 and NFPA 70E	 Salisbury AS1200HAT
Welders Helmet	ANSI Z87.1 – 2003 Personal Protective – Protective Eyewear	 Sellstrom Titan 24701-60
Welders Goggles	ANSI Z 87.1 – 2003, CSA Z94.3, SEI Certified	 North Safety NS - GW200
Face Shield with Helmet Slot Adaptor	ANSI Z87.1 – 2003 Personal Protective – Protective Eyewear	 MSA Defender
Safety Footwear – Water Boot	ANSI Z41 PT 1999 M specification for impact and compression.	 Camcorp Industrial
Safety Cap (Helmet) Chin Strap	ANSI Z 89.1 – 1997Class E, and SEI Certified	 MSA Chin Strap
Air Purifying Respirator, half-face	NIOSH – 42CFR Part 84 OSHA – 29 CFR 1910.134	 3M Half Face Respirator
High Voltage Rubber Rubber Sleeves Class 3	Meet ASTM D1051	 Salisbury Sleeve Dipped Class 3 Type I Red/Yellow Extra Curved Elbow D3RRY-EC

PPE	Applicable Standard	Equivalent Type of PPE
Leather Protector for High Voltage Rubber Glove	ASTM D120 Standard and meet International Standard 903, IEC-1988.	 Salisbury ILP-6S
Utility Glove Liners	100% Cotton blend liners, design construction must allow natural sensitivity, durability and flexibility	 HI – LINE Catalogue # GL
Workman Gloves	Kevlar® sewn premium double tanned side split leather that provides greater flexibility along with increased abrasion, cut, and puncture resistance.	 Arbill A179000
Welder's Gloves	Premium heat-treated side split leather that provides greater flexibility along with increased heat and flame resistance.	 ESAB Heavy Duty Welding Gloves
Harness (Live line Operations)	ANSI Z359, OSHA 1926.104 and ASTM F887-04.	 DBI SALA, Delta™ II Arc
Lineman, Full Body Harness	ANSI Z359.1 - 2016, ANSI/ASSE A10.32, OSHA 1926.104, ASTM F887 and CSA standards.	 3M DBI SALA ExoFit NEX Arcflash
Lineman Body Belt	Extra light weight and durable body belt made of 45 millimeters nylon	 Salibury/FP424/-2ED

PPE	Applicable Standard	Equivalent Type of PPE
Pole Choking / Work Positioning Fall Arrest System	Wood pole climbing fall arrest. CSA certified Z259.14-12 type AB The pole choker shall be made with a drop forged tongue buckle on a six-ply neoprene impregnated webbing. The yellow choker strap shall be adjustable, helping the workers to extend his reach in a safer manner. It shall be 1 3/4-inch-wide and manufactured from nylon. It shall consist of a roller's teeth which is used to provide the gripping force required to prevent you from falling to the ground. When the choker strap is disconnected, it shall function the same as a standard pole strap. The snaplock shall comprise of loops The pole choker shall have a length of 6.2 ft. Distribution and 6.8ft for Transmission	 Jelco Pole Choker
Retractable Web-Lanyard	ANSI Z359.1, ANSI A10.14 and OSHA 1926.104	 Salisbury FPS04/01
Shock-Absorbing Web-Lanyard	ANSI Z359.1, ANSI A10.14 and OSHA 1926.104	 Guardian 01220 6-Foot Single Leg Shock Absorbing Lanyard
Shock-Absorbing Web Loop-Live Line Lanyard	ANSI Z359.1, ANSI A10.14 and OSHA 1926.104, ASTM F887-04	 Arc Flash EZ-STOP II Shock Absorbing Lanyard from DBI/SALA

Appendix C - Type of Contract, Training, & Frequency of Refresher

TRAINING REQUIREMENT			
T&D Pole Maintenance & Line Extension			
No.	**Training/ Course**	**Function**	**Frequency**
1	Cardiopulmonary Resuscitation (CPR)	Lineman	Every 3 years
2	Hurt man Rescue	Lineman	Every 3 years
3	LOTO PTW	Lineman & Switchers	Every 3 years
4	Tailboard / JSA & PPE	Lineman & Affected Workers	Every 3 years
5	Switching Authorization	Switchers	Every 3 years
6	T&D Pole Maintenance & Line Extension Program (Pole line skills training)	Lineman	Skills Training Certification!
7	Fall Protection & Ladder Safety	All Affected	Every 3 years
Vegetation Management			
No.	**Training/ Course**	**Function**	**Frequency**
1	Cardiopulmonary Resuscitation (CPR)	Lineman	Every 3 years
2	Hurt man Rescue	Lineman	Every 3 years
3	LOTO PTW	Lineman & Switchers	Every 3 years
4	Tailboard / JSA & PPE	Lineman & Affected Workers	Every 3 years
5	Switching Authorization	Switchers	Every 3 years
6	Use of Chainsaw	Chainsaw Operator	Every 3 years
7	Fall Protection & Ladder Safety	All Affected	Every 3 years
8	Vegetation Management Program	Workers	Skills Training Certification!
New Service Installation Discon/ Recon			
No.	**Training/ Course**	**Function**	**Frequency**
1	Cardiopulmonary Resuscitation (CPR)	Lineman	Every 3 years
2	Hurt man Rescue	Lineman	Every 3 years
3	LOTO PTW	Lineman & Switchers	Every 3 years
4	Tailboard / JSA & PPE	Lineman & Affected Workers	Every 3 years
5	Switching Authorization	Switchers	Every 3 years
6	Fall Protection & Ladder Safety	All Affected	Every 3 years
7	New Service Installation Discon/Recon Program	Technicians	Skills Training Certification!

Streetlight			
No.	**Training/ Course**	**Function**	**Frequency**
1	Cardiopulmonary Resuscitation (CPR)	Lineman	Every 3 years
2	Hurt man Rescue	Lineman	Every 3 years
3	LOTO PTW	Lineman & Switchers	Every 3 years
4	Tailboard / JSA & PPE	Lineman & Affected Workers	Every 3 years
5	Switching Authorization	Switchers	Every 3 years
6	Fall Protection & Ladder Safety	All Affected	Every 3 years
7	Streetlight Program	Technicians	Skills Training Certification!

! Notes Skills Training Certified Persons:

1. ***Proof Training for workers must be submitted to the Contractor Manager at the start of contract, renewal or when refresher is due and for new employees.***
2. ***In any case where a worker has been inactive for a period of one year or more in their trade or any area of their work for which they are Certified, a refresher training is required prior to working on JPS Worksite or carrying out such work activity they have not performed in excess of one year.***
3. ***Workers must receive additional or refresher training if any or both of the below situation exists:***
    a. ***If new technology, procedures, or change in procedures cause new safety-related work practices to be introduced***
    b. ***If supervision and inspection indicate that the worker is not complying with safety-related work practices***

Appendix D - Preliminary Accident/Incident Report Form

OHSE Incident Type *(double click to check box; if other, please explain)*	☐ Fatality ☐ Personnel Accident ☐ Motor Vehicle Accident ☐ Medical/First Aid ☐ Near Miss ☐ Contractor Accident/Incident	☐ Spill ☐ Fire ☐ Unsafe Condition/Act ☐ Environmental Release - Emissions ☐ Security Incident ☐ Property Damage ☐ Other _____
Actual Severity/Injury	Fatality	
Potential Severity		
Business Unit *(double click to check box)*	**Division/ Contractor:** __ _____ **Cost Centre Name:** **CC#:**	
Location of Incident *(Area – Facility/Field-Site)*		
Date & Time	**Date:**	**Time :**
Name (s), Age & Address of Injured		
Employer & Occupation *(JPS or Name of Contractor Company & Job title)*		
Event Description *(Provide a brief description of the incident)*		
Injury/Damage/Loss Details *(Explanation: Details of Accident/ Spill / Environmental Release / Damage)*		
Financial Impact (*Revenue loss, penalty, cost of repair/clean-up, labour, material, etc.).*		
Cause of Incident **(***Explanation: The trigger for an incident without which the incident could not have happened)*		
Hospital the injured taken to		
Incident Response Action(s) *(State immediate actions taken after the incident)*		
Disciplinary/Corrective Actions to Prevent		

Recurrence/ Lessons Learned					
Incident reported to	**Incident Reported to**	**Person Contacted**	**Telephone No.**	**Reported by**	**Date & Time**
Statutory Authorities Informed	☐ None ☐ Police ☐ Fire Department ☐ ODPEM ☐ NEPA ☐ NWC ☐ Other _____				
Contact details for Queries or Further Information *(Who to contact for further details – Name, email, telephone, mobile)*					
Form Completed by					
PLEASE USE ADDITIONAL SHEET(S) FOR PHOTOGRAPHS OR ADDITIONAL REPORT INFORMATION.					

Appendix E – Contractor HSE Evaluation Form

JAMAICA PUBLIC SERVICE CO. LTD.

TO:		**DATE:**	
FROM:		**CONTRACTOR:**	
P.O. #		**CONTRACTOR FOREMAN:**	
JOB REF. No			
TYPE OF WORK/SERVICE:			
SCOPE OF WORK/SERVICE:		**Score**	

A	**HSE ORIENTATION & TRAINING**	**YES**	**NO**	**N/A**
1	WAS HSE ORIENTATION CONDUCTED FOR ALL WORKERS?			
2	WAS PROOF OF HSE ORIENTATION PROVIDED?			
3	ARE ALL WORKERS TRAINED/CERTIFIED TO PERFORM WORK?			
4	ARE EQUIPMENT OPERATORS TRAINED/CERTIFIED?			
5	WAS SAFETY MEETING CONDUCTED BY CONTRACTOR WITH WORKERS?			
B	**PPE**	**YES**	**NO**	**N/A**
6	WAS ALL EMPLOYEES PROVIDED WITH THE REQUISITE PPEs?			
7	WAS ALL PPEs ARE GOOD CONDITION?			
8	Helmet			
9	Safety Glasses			
10	Safety Boot			
11	Rubber Gloves			
12	Uniform			
13	Fall Protection			
14	Other			
15	EMPLOYEES DONNED ALL APPROPRIATE PPEs ON THE JOB?			
C	**SAFETY DEVICES & EQUIPMENT:**	**YES**	**NO**	**N/A**
16	WAS EMPLOYEES PROVIDED WITH THE REQUIRED SAFETY DEVICES ?			
17	WAS ALL SAFETY & EQUIPMENT IN GOOD CONDITION?			
18	Noisy Tester			
19	Switch stick			
20	Grip All Stick			
21	Slings and Riggin Equipment			
22	Short & Ground			
23	Traffic Cones			
24	Men At Work Sign			
25	LOTO Hardware			
26	PTW Booklet			
27	Tailboard Booklet			
28	Other			
D	**RISK ASSESSMENT (TAILBOARD,SAFETY PLAN & PTW)**	**YES**	**NO**	**N/A**
29	WAS TAILBOARD MEETING CONDCUTED ?			
30	WAS TAILBOARD PROPERLY COMPLETED & ALL HAZARDS IDENTIFIED?			
31	DID ALL EMPLOYEES SIGN ON THE TAILBOARD FORM TO START WORK?			
32	DID ALL EMPLOYEES SIGN OFF THE TAILBOARD FORM WHEN WORK COMPLETE?			
33	DID THE WORK CREW COMPLY WITH PTW REQUIREMENT?			
34	WAS A SAFETY PLAN DONE OR SUBMITTED FOR PROJECT OR NON ROUTINE WORK?			
35	WAS A SAFETY RISK ASSESSMENT DONE FOR THE PROJECT OR NON ROUTINE WORK?			
36	DID THE CONTRACOR COMPLY WITH SAFETY PLAN FOR FOR PROJECT OR NON ROUTINE WORK?			
37	DID THE CONTRACTOR PARTICIPATE IN (PREP) WORK ACTIVITIES FOR THE PROJECT/NON ROUTINE JOB?			

JAMAICA PUBLIC SERVICE CO. LTD.

	TO:	**DATE:**			
	FROM:	**CONTRACTOR:**			
	P.O. #	**CONTRACTOR FOREMAN:**			
	JOB REF. No				
	TYPE OF WORK/SERVICE:				
	SCOPE OF WORK/SERVICE:	**Score**			
E	**BBSO, AUDIT & INSPECTIONS**		**YES**	**NO**	**N/A**
38	DID THE CONTRACTOR CONDUCT ANY SAFETY AUDIT/INSPECTION FOR THE JOB?				
39	STATE THE NUMBER OF SAFETY AUDIT OR INSPECTION DONE FOR THE JOB				
40	DID THE CONTRACTOR CONDUCT ANY BBSOs FOR THE JOB?				
41	STATE THE NUMBER OF BBSOs DONE FOR THE JOB				
F	**VEHICLE:**		**YES**	**NO**	**N/A**
42	WERE VEHICLE(S) /TRUCK(S) PROPERLY EQUIPPED				
43	WERE VEHICLE(S) /TRUCK(S)IN GOOD CONDITION?				
			YES	**NO**	**N/A**
44	WERE VEHICLE(S) /TRUCK(S) INSURED?				
45	WERE VEHICLE(S) /TRUCK(S) LICENCED?				
G	**ACCIDENT/DAMAGE TO PERSON OR PROPERTY**		YES	NO	
46	WAS THE JOB COMPLETED WITHOUT AN ACCIDENT?				
47	IF THERE WAS AN ACCIDENT, WAS THERE COMPLIANCE WITH INCIDENT/ ACCIDENT PROCEDURES?				
	STATE THE NUMBER OF ACCIDENTS ON THE JOB.				
	COMMENTS……				
	……				
	……				
	……				
	DONE BY …… DATE ……				
	SIGNATURE ……				
	NB. Score = (Sum of "Yes"/ Total Sum of "Yes" +"No")*100				

Appendix F - Incident Investigation format

Supervisor's Accident Investigation Form

Company Name _____

Name of Injured Person _____

Date of Birth_____ Telephone Number _____

Address _____

Town Parish _____

_____

_____ (Circle

one) Male Female

What part of the body was injured? Describe in detail. _____

_____

What was the nature of the injury? Describe in detail.

_____

_____

_____

Describe fully how the accident happened? What was employee doing prior to the event? What equipment, tools being using? _____

_____

_____

Names of all witnesses:

_____ _____

_____ _____

Date of Event_____ Time of Event _____

Exact location of event:

_____

What caused the event?

_____

_____

_____

Were safety control(s) was in place and used? If not, what was wrong?

_____

Employee went to doctor/hospital? Doctor's Name

Hospital Name

Recommended preventive action to take in the future to prevent reoccurrence.

Supervisor Signature Date

Incident/Accident Investigation Report

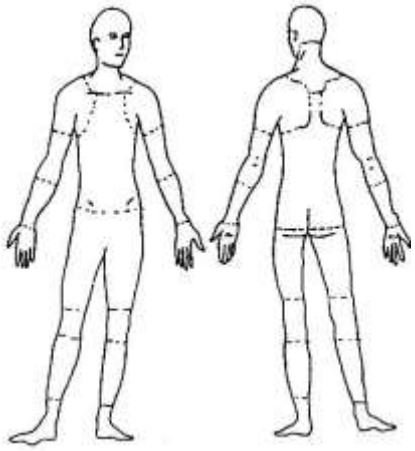
Instructions: Complete this form as soon as possible after an incident that results in serious injury or illness. (Optional: Use to investigate an injury or near miss that *could have resulted in a serious injury or illness*.)

This is a report of a: ❑ Death ❑ Lost Time ❑ Dr. Visit Only ❑ First Aid Only ❑ Near Miss	
Date of incident:	This report is made by: ❑ Principal ❑ Supervisor ❑ Other_____

Step 1: Injured employee (complete this part for each injured employee)

Name:	Sex: ❑ Male ❑ Female	Age:
Company:	Job title at time of incident:	

Part of body affected: (shade all that apply)



Nature of injury: (most serious one)
- ❑ Abrasion, scrapes
- ❑ Amputation
- ❑ Broken bone
- ❑ Bruise
- ❑ Burn (heat)
- ❑ Burn (chemical)
- ❑ Concussion (to the head)
- ❑ Crushing Injury
- ❑ Cut, laceration, puncture
- ❑ Hernia
- ❑ Illness
- ❑ Sprain, strain
- ❑ Damage to a body system:
- ❑ Other _____

This employee works:
- ❑ Regular full time
- ❑ Regular part time
- ❑ Seasonal
- ❑ Temporary

Months with this employer

Months doing this job:

Step 2: Describe the incident

Exact location of the incident:	Exact time:

What part of employee's workday? ❑ Entering or leaving work ❑ Doing normal work activities ❑ During meal period ❑ During break ❑ Working overtime ❑ Other_____

Names of witnesses (if any):

Number of attachments:	Written witness statements:	Photographs:	Maps / drawings:

What personal protective equipment was being used (if any)?

Describe, step-by-step the events that led up to the injury. Include names of any machines, parts, objects, tools, materials and other important details.

Step 3: Why did the incident happen?

Unsafe workplace conditions: (Check all that apply)

- ❑ Inadequate guard
- ❑ Unguarded hazard
- ❑ Safety device is defective
- ❑ Tool or equipment defective
- ❑ Workstation layout is hazardous
- ❑ Unsafe lighting
- ❑ Unsafe ventilation
- ❑ Lack of needed personal protective equipment
- ❑ Lack of appropriate equipment / tools
- ❑ Unsafe clothing
- ❑ No training or insufficient training
- ❑ Other: _____

Unsafe acts by people: (Check all that apply)

- ❑ Operating without permission
- ❑ Operating at unsafe speed
- ❑ Servicing equipment that has power to it
- ❑ Making a safety device inoperative
- ❑ Using defective equipment
- ❑ Using equipment in an unapproved way
- ❑ Unsafe lifting
- ❑ Taking an unsafe position or posture
- ❑ Distraction, teasing, horseplay
- ❑ Failure to wear personal protective equipment
- ❑ Failure to use the available equipment / tools
- ❑ Other: _____

Why did the unsafe conditions exist?
Why did the unsafe acts occur?
Is there a reward (such as "the job can be done more quickly", or "the product is less likely to be damaged") that may have encouraged the unsafe conditions or acts? ❑ Yes ❑ No If yes, describe:
Were the unsafe acts or conditions reported prior to the incident? ❑ Yes ❑ No
Have there been similar incidents or near misses prior to this one? ❑ Yes ❑ No

Step 4: How can future incidents be prevented?

What changes do you suggest to prevent this incident/near miss from happening again?

❑ Stop this activity ❑ Guard the hazard ❑ Train the employee(s) ❑ Train the supervisor(s)

❑ Redesign task steps ❑ Redesign work station ❑ Write a new policy/rule ❑ Enforce existing policy

❑ Routinely inspect for the hazard ❑ Personal Protective Equipment ❑ Other: _____

What should be (or has been) done to carry out the suggestion(s) checked above?

Step 5: Who completed and reviewed this form? (Please Print)

Written by: Company:	Title: Date:
Names of investigation team members:	
Reviewed by:	Title: Date:

Appendix F - Incident Investigation format

I. Title Page
Date and Time of Incident:
Name of Incident:
Location of Incident:
II. Investigator/Panel
III. Executive Summary
A. Description of Incident
B. Summary of Findings
C. Recommended Corrective Actions
IV. Incident Information
A. Description of Events
B. Chronological Course of Events
C. Immediate Actions Taken
D. Outside Agency Involvement
E. Plant/Equipment Status and Activities
V. Investigative Information
A. Incident Scene Inspection
B. Witness Interviews
C. Job Procedure Evaluation
D. Document Review
VI. Causal Analysis
A. Immediate (Primary) Cause(s)
B. Contributing (Secondary) Cause(s)
C. Root (Tertiary) Cause(s)
D. Additional (Non-Causal) Cause(s)
VII. Potential Corrective Actions
A. Employee Level
B. Job Level
C. Facility Level
D. Administrative Level
E. Analytical Level
VIII. Attachments
A. Photographs
B. Documents

Appendix G – Summary of Reports

Inspection & Audit Reporting			
Inspection/ Audit Reports	**Frequency**	**Report Schedule**	**Medium**
Jobsite Inspection- Maintenance Work	Daily	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Jobsite Inspection- Emergency Work	One per shift	5pm each day/end of shift	JPS Assure Platform/ submit to Contract Manager & OHSE
PPE & Safety Device Inspections	Weekly	Fridays at 5pm	JPS Assure Platform/ submit to Contract Manager & OHSE
Tools and Equipment Inspections	Weekly	Fridays at 5pm	JPS Assure Platform/ submit to Contract Manager & OHSE
Safety Observation	Daily	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Vehicle	Daily (Job site)	5 pm each day	JPS Assure Platform/ submit to Contract Manager & OHSE
Safety Management Audit	Quarterly	Last Friday each quarter @ 5pm	Submit to Contract Manager & OHSE
Incident/ Accident Reporting			
Incident/ Accident Reports	**Report Schedule**		**Medium**
Notification **- OHSE Incident/ Accident - Employee Injury (Recordable & First Aid), Near Miss, Public Accident, Motor Vehicle Accident**	Immediately/ within 2 hours		Send electronic mail, text message, verbal or telephone to Contract Manager
Preliminary Incident/ Accident Report - **OHSE Incident/ Accident - Employee Injury (Recordable & First Aid), Near Miss, Public**	Within 24 hours		Submit Preliminary Report (See Appendix D) to Contract Manager

Accident, Motor Vehicle Accident		
Incident/Accident Investigation - **OHSE Incident/ Accident - Employee Injury (Recordable & First Aid), Near Miss, Public Accident, Motor Vehicle Accident**	With 5-10 days	Submit Accident/ incident Investigation Report (See Appendix F for Investigation Format) to Contractor Manager

Proof Training for workers outlined in Appendix C must be submitted to the Contractor Manager at the start of contract, renewal or when refresher is due and for new employees.

Appendix H- Safety Meeting Report Template

SAFETY MEETING REPORT TEMPLATE

CONTRACTOR NAME	
DATE OF MEETING:	
START TIME OF MEETING:	
END TIME OF MEETING:	
NAME OF PRESENTER:	
PERCENTAGE ATTENDACE:	

SAFETY TOPIC -

DISCUSSION

CONCERNS	ACTION	RESPONSIBLE	SCHEDULE

ATTENDANCE REGISTER

NAME	SIGNATURE	REMARKS

Attach Safety Meeting register and submit to the Contract Manager weekly

END OF DOCUMENT