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## FOREWORD

This document, "Contractor Safety Requirements", represents the current contractor safety requirements that are unique to operations at National Grid. This document does not reference actions that are required by OSHA, other laws, rules, or regulations. These are requirements that should be understood by the contractor and contractor compliance with all applicable federal, state and local laws, rules, and regulations is expected by National Grid as a contractual condition.

Please direct any questions regarding this document to the Corporate Safety Group, Safety and Health Services.

This document will be updated as necessary to reflect changes in National Grid safety policies and procedures.

### Record of Change

#### Date of Review/Revision:

Revision	Date	Description
1	08/5/2004	Initial
2	3/2/2005	Additions

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## 1.0 CONTRACTOR SAFETY AT NATIONAL GRID

### 1.1 Introduction

Safety performance is a prime consideration in the selection of contractors. National Grid USA will stipulate safety and health performance requirements and responsibilities in our contracts and purchase orders and will hold the contractor accountable for meeting the contractual requirements.

This document, “Contractor Safety Requirements”, is updated periodically to communicate all aspects of National Grid contractor safety to bidders and current contractors.

National Grid’s goal is to establish a long-term working relationship with contractors who share the same safety values and demonstrate those values through their work performance.

Contractor safety at National Grid involves three broad areas:

- (1) The Contractor Selection Process (Procurement)
- (2) Safety Communication
- (3) Safety Compliance

**(1) *Contractor Procurement***

Contractor safety begins with the selection of contractors who have demonstrated a good safety record.

**(2) *Safety Communication***

Safety communication covers all the avenues and forums in which National Grid and the contractor communicates safety. Communication begins early in the bidding phase and is on-going as an integral part of the contractor-customer relationship. The goal is to ensure clarity and to limit misunderstandings.

**(3) *Safety Compliance***

Safety compliance is the process of ensuring that the provisions of the contract are being followed. National Grid will assign a Field Construction Coordinator or other designated individual to provide guidance and oversight. The contractor is responsible for their employees and subcontractors and shall be held accountable for ensuring compliance with all applicable safety rules while working on National Grid property.

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## 1.2 Risk Ranking of Work

1. At the beginning of any project, National Grid will conduct a risk assessment for each anticipated work activity of a contracted service. National Grid will categorize these activities as low, medium or high risk. Risk refers to the chance of injury, property damage, or adverse public impact should the contractor deviate from the prescribed safety measures.
2. **Activities that are designated as “high risk” means that death can result if safety measures are not followed.** In general, any work related to electrical transmission and distribution, and gas operations shall be ranked by National Grid as high risk.
3. The designation high risk, medium risk, or low risk, refers only to the inherent risk associated with the work activity and is not an opinion on the ability of a contractor to work safely.
4. The purchasing agent will notify the bidder/contractor at the beginning of the procurement process if their contracted service has been ranked as high risk.

## 1.3 Bidder Information Request – High Risk Work

1. The purchasing agent will send all contractors bidding work designated as high risk a “Bidder Information Request” form. This is the first step in establishing a working relationship with National Grid. For contractors already on the National Grid bid list, Procurement will periodically request updated information.
2. The information that the bidder provides serves as the basis for assessing safety qualification. For this reason, it is important that this form is approached in a candid and thorough manner. National Grid will review the submitted information. Any effort to avoid complete disclosure will disqualify the bidder from bidding work at National Grid.

## 1.4 Safety Compliance

1. National Grid evaluates contractor compliance by conducting routine site visits, safety observation tours, and attending periodic contractor safety meetings.
2. If a safety violation is observed by a National Grid representative, the violation will be discussed with the contractor at the time of discovery.

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3. The contractor must immediately establish corrective actions and implement measures to prevent a recurrence.
4. Individual contractor personnel who habitually violate safety rules should be identified, and the contractor should remove the individual(s) from the project.
5. If a contractor is observed to be operating in a manner that creates an imminent danger to persons or property, it is the responsibility of any National Grid employee observing the hazard to stop the job or that portion of the job impacted until the issue has been resolved to the satisfaction of the Field Construction Coordinator or Safety representative.
6. Contracts/POs shall require the contractor to immediately forward any citations or notices incurred on the project upon receipt to the appropriate company representative.
7. Willful and repeat violations of safety requirements by the contractor may be considered a breach of the contract and reason for contract termination.
8. If the contractor's overall safety performance is viewed as being unsatisfactory or noncompliant with contract provisions, and if the contractor is unwilling to demonstrate satisfactory program improvement, the contractor may be removed from the project as may be provided for in the contract.
9. National Grid documents safety compliance by completing a "Contractor Performance Evaluation". This documents both good and bad safety performance and this feedback will be used in the decision process for awarding future contracts.

## **2.0 GENERAL SAFETY REQUIREMENTS**

### **2.1 Introduction**

1. All contractors are required to comply with the requirements of the Occupational Safety and Health Administration (OSHA), all other applicable federal, state, and local laws, ordinances, regulations, and other project and site-specific permits.

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2. This document represents policies and safety-related work methods that are unique to National Grid and that may go beyond OSHA rules. Contractors must follow these requirements as well as their own rules that meet or exceed OSHA and other regulatory requirements.
3. In cases where there is more than one method of compliance with a given safety rule or regulation, the contractor may deviate from National Grid practices if they can demonstrate to National Grid that the alternative practice provides an equal or greater margin of safety.
4. National Grid will provide more detailed information and guidance regarding specific procedures prior to commencement of work.

## **2.2 Applicability**

This document applies to all contractors; however most of the requirements are directed to contractors who perform work that is related to National Grid’s core business functions: electrical transmission and distribution, and gas operations.

## **3.0 ADMINISTRATIVE SAFETY REQUIREMENTS**

### **3.1 Pre-Bid Meeting**

Applies to: All contractors, as needed.

The pre-bid meeting is coordinated by National Grid Procurement to provide bidders with an opportunity to acquaint themselves with contractual requirements and specific safety issues concerning the project, including company-specific safety rules and known site conditions. This meeting may not be necessary for all projects.

### **3.2 Project Safety Plan**

Applies to: Contracted services ranked as high risk.

1. Contractors who perform high risk-ranked services shall submit a project-specific safety plan prior to the pre-construction meeting.
2. The contents of this document, “Contractor Safety Requirements”, and this section provide guidance to develop the safety plan.

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3. At a minimum, the safety plan shall include the following elements:

- A. Roles and responsibilities
- B. Scope of work
- C. Task and Hazard Identification and risk assessment of the hazards
- D. Hazard mitigation/control procedures and work methods
- E. Incident analysis and reporting
- F. Compliance and monitoring

**A. Roles and Responsibilities**

The plan shall identify who will be responsible for the project oversight and their qualifications. For example, if the work requires excavation, there must be someone on-site who would be qualified as a competent person.

For multi-employer work-sites, the general contractor is responsible for all their employees and subcontractors. The safety plan shall clearly state this responsibility.

**B. Scope of Work**

Briefly state the scope of work as provided by National Grid. The plan must specifically address the project or services requested by National Grid. Therefore, these plans should be short and-to the-point.

**C. Task and Hazard Identification and Risk Assessment**

The contractor shall identify all significant tasks and the anticipated hazards. National Grid calls this process a risk assessment.

The contractor's cost to provide adequate safety measures and to comply with National Grid requirements must be considered and budgeted in the bid/proposal.

**D. Hazard Mitigation Procedures and Work Methods**

For each hazard, the contractor shall specify measures that will be taken to mitigate these hazards.

A table format is the simplest way to organize and present the task, hazard, and mitigation steps. For example:



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<b>Location:</b>	Substation Yard	
<b>Task</b>	<b>Hazard</b>	<b>Mitigation Steps</b>
Material Handling	Contact with overhead energized lines/equipment	Off-load in the clear and have a safety observer present

**E. Incident Analysis and Reporting**

Follow the requirements referenced in this document.

**F. Compliance Monitoring**

Explain how you will ensure that both your employees and subcontractors will achieve safety compliance.

**3.3 Contractor Orientation**

Applies to: All contractors, as needed.

1. Contractor orientation is intended to serve as a resource in order to provide the contractor with the tools necessary to educate their employees and subcontractors. The session is not intended to train the contractor management, their employees, or subcontractors.
2. The extent and content of the orientation session shall be commensurate with the scope and type of the contractor’s activities.
3. The contractor shall agree to provide management representation at the orientation session.
4. After the completion of the orientation session, a Contractor Management Official shall certify in writing that: (1) the contractor has been informed of National Grid safety requirements; (2) that employees and subcontractors have the appropriate qualifications to perform the work, and; (3) the contractor agrees to comply with all applicable safety requirements. The certification shall be in the form of a “Letter of Assurance”, printed on the contractor’s letterhead, signed by a principal of the contractor, and delivered to your company’s National Grid contact.

**3.4 Worker Qualification Assurance**

Applies to: All contractors, as needed.

1. In order to meet National Grid safety requirements, the contractor must describe how workers, including subcontractors, are qualified.

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The contractor must supply information concerning the types of skills assessments performed, training programs and how they ensure that employees demonstrate competencies.

2. The Contractor Management Official shall certify the contractor has been informed of National Grid safety requirements; that employees and subcontractors have the appropriate qualifications to perform the work, and; that the contractor agrees to comply with all applicable safety requirements.
3. The bidder shall supply the backgrounds and qualifications for all management personnel through resumes or other documents. National Grid shall interview and approve management personnel if considered necessary.
4. Contractors bidding on new work provide this information to the National Grid purchasing agent via the "Bidder Information Request" form.

### **3.5 Pre-Construction Meeting**

Applies to: High risk ranked projects or activities.

1. National Grid holds a pre-construction or project kickoff meeting with the contractors prior to the start of a high risk-ranked project.
2. The contractor's Project Safety Plan will be discussed at this meeting.
3. These hazard mitigation measures shall be reviewed and work shall not commence until these hazards have been adequately addressed. The Field Construction Coordinator, or other user representative, will discuss with the contractor the methods by which compliance will be achieved with National Grid safety requirements.
4. An Emergency Call List should be exchanged with the contractor. This list must contain 24-hour contact information for key contractor and project personnel, including Field Construction Coordinators and Safety & Health Specialists. This list should be distributed to all concerned, as determined by the project team, prior to the start of work.
5. For routine maintenance services, a review of associated safety issues and specific facility issues, restrictions or practices, such as evacuation procedures, must be discussed with the contractor upon initial hiring. Any changes in the facility that may affect the safety of contractor or National Grid employees or third parties must be communicated immediately.

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### **3.6 Safety Meetings and Job Safety Briefs**

Applies to: All contractors, as needed.

1. The contractor shall have regular safety meetings with their employees and subcontractors.
2. Each crew shall conduct job safety briefs prior to each day's work; when there are changes to the work order or plan, and when a new worker joins the crew additional briefs are required.
3. Each worker must have the opportunity to voice concern. The work cannot begin until each worker signs off on the job brief stating that they have discussed the work and agree with the plan.
4. Both safety meetings and job briefs shall be documented in writing. Written job briefs shall be available at the job site for inspection and retained for 30 days after the job is completed.

### **3.7 Incident Analysis**

Applies to: All contractors (regardless of risk ranking).

1. The contractor supervisor shall report any work-related incidents involving injury or illness to employees, the public or property damage to the contractor's or National Grid's equipment to their National Grid point of contact. The first priority is to ensure that the injured receive medical treatment.
2. The contractor's National Grid point of contact will explain these reporting requirements in more detail prior to commencement of work. This point of contact refers to either a National Grid department, work group, supervisor, engineer or Field Construction Coordinator.
3. An incident is defined as an unplanned event that has a human component, and results in, or could potentially result in, at least one of the following outcomes: (1) harm to people; (2) damage to property; (3) adverse public impact.
4. There are four categories of incidents.
  1. **Injury** – incidents that cause harm to people;
  2. **Property Damage** – incidents that cause damage to property;

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3. **Adverse Public Impact** – incidents that disrupt service to the public or result in adverse public reaction;
4. **Near-Miss** – an incident which had the potential under different circumstances to result in an injury.

5. A Hazardous Condition is defined as:

Significant hazard      A condition that requires others to take actions to rectify and requires further investigation as to how the situation came to occur.

### **Incident Response Steps**

In the event of an incident, the contractor shall provide details of the incident to their National Grid point of contact following the steps below.

1. Contractor supervisor collects basic information about the incident from the employee or witnesses:
  - a. What happened?
  - b. Who and how many people were injured?
  - c. What treatment was administered?
  - d. What was the nature and seriousness of the injury?
  - e. Where did the incident occur?
  - f. When did the incident occur (date, time of day)?
  - g. Were there any witnesses?
2. The National Grid point of contact calls the One-Call phone number (1-866-322-5594) to report the incident.
3. Contractor shall conduct an investigation and provide an initial written report if directed to do so by National Grid.
4. The contractor will then conduct an investigation that will identify contributing factors relating to the incident and the corrective actions that will be taken to prevent recurrence. The results of the investigation shall be described in a report prepared by the contractor and provided to National Grid. The contractor shall use National Grid Incident Reporting forms which will be provided by their National Grid point of contact.
5. Contractor vehicle accidents occurring during the performance of work will also be investigated and reported to their National Grid point of contact.

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### **Other Reporting**

National Grid may periodically request the following annualized data for all work activities limited to National Grid operations:

- Lost Time Incident (LTI) rate for workers
- Restricted Work rate
- OSHA Recordable Incident (ORI) rate

## **4.0 TECHNICAL SAFETY REQUIREMENTS**

### **4.1 Personal Protective Equipment (PPE) Requirements – General**

Applies to: All contractors (regardless of risk ranking).

1. Basic PPE attire at construction sites and other similar work zones include at a minimum: hard hat; safety shoes, and safety glasses.
2. The contractor shall ensure that their employees and subcontractors use protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards. Electrical Hazard (EH) rated footwear is required when working on or around electrical equipment over 50 volts, or in an area of expected downed wires. This requirement is based on OSHA 1910.136.
3. Guidance for additional PPE is referenced in other sections of this document.

### **4.2 Flame Retardant Clothing Requirements**

Applies to: All contractors, as needed.

1. Flame retardant (FR) clothing shall be worn when personnel work on energized equipment/lines or when distance and position will expose the worker to electric arc or flame hazards.
2. FR clothing shall be worn as the outermost layer of clothing.
3. FR clothing shall be worn when workers measure voltages or test or ground electrical equipment or lines.
4. FR clothing shall be worn when work requires the use of rubber protective equipment or the use of insulated live line tools.

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5. FR clothing shall be worn when workers control/operate electrical equipment over 50 volts at the device location or are within 10 feet of equipment which is being physically operated by another worker.
6. FR clothing shall be worn where a hazard identification sign is posted.
7. Contractors shall wear the appropriate FR clothing when working within 10 feet of energized equipment. For substations, visitors are not required to wear FR clothing unless they are engaged in electrical work. Your National Grid contact will be able to determine whether FR clothing will be required based on the specific contractor task.

#### **4.3 Rubber Gloves and Sleeves**

Applies to: All contractors, as needed.

1. Rubber glove use is required for work on all electrical apparatus at 50 volts or greater. Class 0 gloves are required for exposures up to 1000 volts. Class 2 gloves are required for voltages between 1000 to 15,000 volts. Rubber glove exceptions for specific jobs are permitted only with the written approval of the local National Grid Operations Manager.
2. Rubber sleeves must be worn where work is conducted within the minimum approach distances of electrical apparatus that is not dead and grounded.
3. For voltages 23 kV and above, workers can use specialized equipment or work practices as long as these workers have been appropriately trained and qualified.
4. National Grid may request a letter of assurance from the contractor.

#### **4.4 Isolation of Energized Apparatus**

Applies to: All contractors, as needed.

1. Non-Reclosing Criteria and Live-Line Maintenance and Construction  
  
The appropriate interrupting devices (breakers, reclosers, circuit switches, etc.) will be placed on NON-RECLOSING in accordance with National Grid tagging procedures.
2. Tagging Out Lines or Apparatus

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The Field Construction Coordinator (FCC) or other designated representative shall coordinate all switching and tagging prior to main line work. The contractor shall follow the appropriate National Grid switching and tagging procedure.

### 3. Grounding

When National Grid switches out lines or apparatus, any grounds that may be installed shall only be considered a visual reference, and shall not be considered a means to protect the contractor's employees. The contractor is responsible to install their personal grounds, in addition to National Grid's. National Grid will provide guidance on the minimum size of the grounds to be used based on circuit available fault current.

## 4.5 Appointment of a Safety Observer

Applies to: All contractors, as needed.

1. If work is being performed where there is a potential for persons or equipment to come in contact with energized equipment, a Safety Observer will be appointed by the contractor to aid in protecting employees and others from hazards. The Safety Observer will be a "Qualified Electrical Worker" with the training and experience specified in OSHA regulations, specifically the "Electric Power Generation, Transmission and Distribution Standard" 29 CFR 1910.269.
2. The Safety Observer will be appointed while positioning trucks, cranes or other equipment and where precise placement is required to avoid contact with or damage to existing equipment or circuits; while moving loads overhead that may come within OSHA clearance requirements; or at other times where assistance is needed to help direct specific tasks for the protection of personnel or property.

## 4.6 Work Zone Traffic Control

1. If work activity is on or near a road, the contractor and their subcontractors will comply with all applicable parts of the most current US Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD).
2. If working in areas covered by state permits issued to National Grid, contractors are required to comply with the provisions (work practices and notifications) of the permit language.

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#### **4.7 Qualified Electrical Workers**

Applies to: Electrical Projects / Activities

1. National Grid expects that electrical contractor employees will already be electrically-qualified as required by OSHA in 29 CFR 1910.269.
2. OSHA defines a qualified electrical worker or “qualified employee” as a person knowledgeable in the construction and operation of the electrical power generation, transmission and distribution equipment involved and the associated hazards. According to 1910.269(a)(2)(ii), a qualified employee must be trained and competent in:
  - The skills and techniques necessary to distinguish exposed live parts of electrical equipment;
  - The skills and techniques necessary to determine the nominal voltage of exposed live parts;
  - The minimum approach distances specified in 1910.269 corresponding to the voltages to which the qualified employee will be exposed, and;
  - The proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment.
3. Until these qualified employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. According to the definition of a “qualified employee”, the employee also must have demonstrated an ability to perform work safely at his or her level of training.
4. National Grid requires contractors with electrically qualified employees to provide documentation on how they qualify their workers.

#### **4.8 Qualifying Non-Electrical Workers**

Applies to: All contractors, as needed.

##### Qualifying non-electrical workers to work near energized lines and equipment

1. The contractor must provide orientation for non-electrical workers for the purpose of entering and working within restricted areas such as a substation. This is a critical component of contractor orientation for all non-electrical contractors who will be working near energized lines and equipment (For example, civil contractors).



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2. The information provided to these workers must meet the requirements of paragraph 1910.269(a)(2)(ii). However, the orientation and training would not be as comprehensive as the training normally provided to a qualified electrical worker.

They must know:

- What is safe to touch and what is not safe to touch in the specific areas they will be entering;
- The maximum voltage of the area;
- The minimum approach distances for the maximum voltage within the area;
- Proper use of protective equipment that will be used to provide protection for them and in the work practices necessary for performing their specific work assignments within the area.

3. Until these workers have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. According to the definition of a “qualified employee”, the employee also must have demonstrated an ability to perform work safely at his or her level of training. It is expected that an orientation familiarizing the employee with the safety fundamentals above will be conducted before the worker is allowed to enter a restricted area.

## **5.0 OVERHEAD LINE WORK**

Applies to: All contractors, as needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to overhead line work.

### **5.1 PPE Requirements**

Applies to: All contractors, as needed.

All contractors shall comply with the applicable PPE and WZTC requirements referenced in Section 4.0. In addition, contractors will follow ground-to-ground and cradle-to-cradle use of rubber gloves while carrying out work on energized overhead lines.

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## **5.2 Fall Protection**

Applies to: All contractors, as needed.

All contractors performing non-emergency work must utilize 100% fall protection equipment and techniques for wood pole climbing in accordance with National Grid guidelines by August 1, 2005.

## **5.3 Pole/Structure Inspection**

Applies to: All contractors, as needed.

1. Contractor shall ascertain the structural integrity of the pole or other structure prior to installation, removal, or repair of equipment on the structure.
2. When work is to be performed on a wood pole, it is important to determine the condition of the pole before it is climbed. The weight of the employee, the weight of equipment being installed, and other working stresses (such as the removal or re-tensioning of conductors) can lead to the failure of a defective pole or one that is not designed to handle the additional stresses. For these reasons, it is essential that an inspection and test of the condition of a wood pole be performed before it is climbed.
3. If the pole is found to be unsafe to climb or to work from, it must be secured so that it does not fail while an employee is on it. The pole can be secured by a line truck boom, by ropes or guys, or by lashing a new pole alongside it. [29 CFR 1910.269(q)]

## **6.0 UNDERGROUND OPERATIONS WORK**

Applies to: All contractors, as needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to underground operations work.

### **6.1 PPE Requirements**

Applies to: All contractors, as needed.

All contractors shall comply with the applicable PPE and WZTC requirements referenced in Section 4.0.

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## **6.2 Enclosed Space Assessment and Ventilation**

Applies to: All contractors, as needed.

1. The contractor shall test each space prior to removing manhole lids and entry.
2. Atmospheric testing must be continuous for the duration of the entry.
3. When performing lead or asbestos work or when indicated by atmospheric monitoring, engineering controls such as forced mechanical ventilation must be used when working in National Grid manholes during the entire performance of the work.

## **6.3 Enclosed Space Entry and Non-Entry Rescue**

Applies to: All contractors, as needed.

1. All manhole and sidewalk vault entry shall be conducted in accordance with National Grid enclosed space procedures.
2. All contractors who are qualified electrical workers will treat these spaces as “enclosed spaces” and follow non-entry rescue provisions.
3. Steel cable or wire rope for non-entry rescue is prohibited.

## **7.0 SUBSTATIONS**

Applies to: All contractors, as needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to substations work.

### **7.1 PPE Requirements**

Applies to: All contractors, as needed.

1. All contractors shall comply with the applicable PPE and WZTC requirements referenced in Section 4.0.
2. Contractors will wear an electrical flash PPE ensemble when switching disconnects or grounding in areas in indoor substations.

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## **7.2 Notification of Control Authority When Entering a Substation**

Applies to: All contractors, as needed.

1. When a contractor enters and exits a National Grid substation, the contractor will ensure that the System Control Center is notified.
2. Unescorted entry in substations can only be provided to contractors who provide assurance that their employees and subcontractors are electrically qualified as specified in 29 CFR 1910.269. Refer to Section 4.0 of this document.

## **7.3 Substation Work Area Identification (SWAI)**

Applies to: All contractors, as needed.

Contractors who will be working in substations shall follow the SWAI procedure. National Grid will provide a copy of this procedure if required by the project.

## **7.4 Herbicide Application**

Applies to: All contractors, as needed.

1. Substation vegetation spraying shall be conducted unescorted only by contractor employees who have been designated as a Qualified Electrical Worker.
2. The spray applicator will have ID cards issued by Security with background checks available from the contractor.
3. Substations management shall require a schedule of the spraying in their areas.
4. Once spraying begins, the contractor must contact local management on a daily basis to inform them of progress or changes to the schedule.
5. The contractor must post all stations with dated signs indicating when the station was sprayed. These signs should not inhibit access to the station.
6. The contractor shall take care to prevent that any stored materials and equipment do not get covered with "overspray". Overspray represents a substantial safety hazard and cannot be allowed.

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## **8.0 GAS OPERATIONS WORK**

Applies to: All contractors, as needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to gas operations work.

All contractors shall be familiar with and comply with GOPB Section 700 (Worker Safety) and Section 401 (Live Gas Work). All contractors are required to have a copy of the GOPB on all job sites.

### **8.1 PPE Requirements**

Applies to: All contractors, as needed.

1. All contractors shall comply with the applicable PPE and WZTC requirements referenced in Section 4.0.
2. The contractor shall wear Class 2 rubber gloves for personal protection when digging or probing near (2 feet - 2 inches) known electrical conductors and when the location of energized conductors is unknown.

## **9.0 FORESTRY AND VEGETATION MANAGEMENT**

Applies to: All contractors, as needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to vegetation management work.

### **9.1 PPE Requirements**

Applies to: All contractors, as needed.

1. For work along roads and other areas of vehicular traffic, contractors shall wear high visibility clothing or vests in addition to other PPE appropriate to the work.
2. Flame Retardant Clothing is not applicable for Forestry contractors. Forestry contractors must instead wear natural fiber clothing when working within 10 feet of energized equipment.
3. Forestry contractors must wear a properly adjusted full-body fall protection harness connected to an appropriate lanyard when working from an aerial lift. The lanyard must connect to an attachment anchored to either the boom or bucket mounting hardware. Attachment points anchored through only the fiberglass portion of the bucket are not acceptable.

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4. Forestry contractors will be required to wear chaps while using a chainsaw on the ground.

## **9.2 Equipment and Work Methods**

Applies to: All contractors, as needed.

1. Forestry contractors will be required to utilize fiberglass stick and stick saws for work around energized equipment and to test/document their integrity annually.
2. Forestry contractors will be required to perform and document dielectric testing of all aerial units annually.

## **9.3 Training**

Applies to: All contractors, as needed.

1. Forestry contractor management will be required to attend a quarterly executive safety council meeting hosted by National Grid USA. The contractor will ensure that all appropriate safety personnel for the National Grid USA territory are in attendance.
2. Forestry contractors shall implement and provide the required training and certification programs necessary to provide OSHA defined Qualified Line Clearance Tree Trimmers or Qualified Line Clearance Tree Trimmer Trainees.
3. For Lump Sum or Unit Price mileage trimming projects a single foreman may supervise up to four (4) bucket trucks on the same project. However, in that case, the minimum qualifications for the "lead" person on each of the other trucks shall be a Journeyman Tree Trimmer or equivalent (Qualified Line Clearance Tree Trimmer). At least one other employee on the truck shall be an OSHA defined, Qualified Line Clearance Tree Trimmer Trainee.
4. By April 1st of each year, the contractor shall provide a list of employees that could reasonably be expected to work on National Grid USA property. This listing shall include:
  - identify the current pay classification of each employee
  - the date of their progression to their current pay level,
  - the dates each employee completed each level of the contractor line clearance tree trimmers training program,

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- the dates each employee completed their required OSHA safety and other training, or retraining, including any annual refreshers,
- the date each employee last demonstrated their tree rescue and climbing proficiency where applicable
- the date each employee completed CPR and first aid training, and;
- identify each certified pesticide applicator, their certification number and category certified.

#### **9.4 Herbicide Applications**

Applies to: All contractors, as needed.

Contractor requirements for substation vegetation spraying are referenced under the Substations Work section of this document.