



**CARIBBEAN UTILITIES COMPANY, LTD.**

**OCTOBER 2024**

# Contractor EHS Handbook 2024



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# Message from Richard Hew, President and CEO (CUC)



This CUC Contractor EHS Handbook has been developed out of the cumulative experience of many people involved in the operation of electric utilities. This handbook has been prepared and is distributed to provide all workers with a uniform set of health, safety and environmental standards and guidance in order to eliminate and mitigate hazards, reduce risk of occupational injury and illness, protect the environment and to meet the requirements of ISO-45001 and ISO-14001, internationally-recognised occupational health, safety and environmental management systems standards.

When the information provided in this handbook is followed carefully, personal injury, injury to others, damage to equipment, lost time incidents and pollution to the environment can be minimised and/or eliminated. No set of guidelines, regulations, or procedures can replace the responsibility that rests with each of us to be engaged with the work conducted and constantly be aware to the presence of hazards and dangers that could result in injury and/or damage to the environment, at our workplace and generally in our lives.

**You owe it to yourself, your fellow workers, and your family to follow the information and requirements contained in this handbook.**

A handwritten signature in black ink that reads "Richard Hew".

Richard Hew  
President and Chief Executive Officer  
Caribbean Utilities Company, Ltd.

October 2024

# Introduction

## About Us

Caribbean Utilities Company, Ltd., known locally as "CUC", commenced operations as the only public electric utility in Grand Cayman, the largest of the three Cayman Islands, in May 1966. The Company has been through many challenging and exciting periods but has kept pace with Grand Cayman's rapid development for over 55 years. Today we are considered one of the most reliable and efficient power companies in the Caribbean.



## Mission

To be a leader in the growth of our community by delivering safe, reliable energy services at competitive costs and with respect to the environment while being a model corporate citizen and providing a fair return to our shareholders.

## Vision

Empowering Cayman to be a Global Leader.

## Values

- Health & Safety
- Reliability
- Environment
- Excellence
- Community
- Integrity
- Teamwork
- Customer Service



## Purpose

Both health and safety and the environment are core values of CUC. This is important for our employees and operations as well as the contractors and subcontractors that perform work on behalf of CUC. Globally the issue of contracting and potential liability for the activities of contractors has received increased attention over the past few years.

The purpose of the Contractor EHS Handbook is to notify you of CUC EHS expectations along with providing you with information and resources to ensure that you work safely and help protect the environment. It is important to understand that safety begins with teamwork. We must all work together to ensure a healthy, safe and sustainable environment. An incident or accident does not only affect the individual but the whole team.

# Legislation



CUC is committed to complying with applicable legislation to ensure the health and safety of individuals and the protection of the environment. These statutes and laws include but are not limited to:

- Cayman Islands Labour Law (2021 Revision) including Labour Act (Occupational Safety and Health) (Construction Industry) Regulations, 2008
- Cayman Islands Workmen's Compensation Act (1996 Revision) and Workmen's Compensation Regulations (1998 Revision)
- Other applicable building, fire and environmental laws and codes of the Cayman Islands

These laws prescribe important duties and responsibilities of:

- Government agencies (Department of Labour) are responsible for enforcing health and safety requirements. These authorities can conduct inspections, issue improvement notices, and take legal action for serious violations, including potential fines and imprisonment.
- Employers have several legal obligations. They must provide a safe working environment, conduct risk assessments, provide safety information and training, supply Personal Protective Equipment (PPE), and report accidents and dangerous occurrences.
- Employees also share responsibilities for workplace health and safety. They must follow safety rules and procedures, use PPE correctly, report hazards and unsafe conditions, and cooperate in investigations.

Further to this, CUC uses Occupational Safety and Health Act (OSHA) - US Department of Labor (as applicable) and International Organization for Standardization (ISO) standards of:

- ISO 14001:2015 - Environmental management systems
- ISO 45001:2018 - Occupational health and safety management systems

# General Requirements

## **000: Contractor Pre-qualification and Orientation**

### **Pre-qualification**

Pre-qualification is an important tool in contractor safety and maintaining our environmental management certification. It helps to ensure contractors working with CUC are aligned in core values and have the necessary skills, qualifications and capabilities to deliver projects safely, on time and while protecting the environment.

Pre-qualification generally helps ensure agreements are in place with defined roles and responsibilities, confirmation of qualifications, certifications and insurances, and evaluates past (EHS) performance.

CUC has an established procedure that outlines the selection and requirements related to contract agreements for contractors, consultants and suppliers whose services, products and/or other activities may be linked to the significant environmental aspects, and or health and safety hazards. This is to help ensure that contractors are competent, familiar with the CUC requirements and the observe operational controls and other elements of the Company's environmental, health and safety management systems.

CUC Contractor Coordinators, EHS and CUC staff involved in procurement will advise any supporting documentation or information needed.



### **Contractor EHS Orientation**

All contractors performing work at CUC or on behalf of CUC are required to complete the CUC Contractor EHS Orientation. The purpose of this orientation is to provide contractors with information on CUC's expectations and requirements related to the environment, health and safety. The intention is not to provide training on any specific environmental, or health and safety topics or provide a substitute to specific information and job safety and environment planning performed in consultation with the CUC Contractor Coordinator.

This orientation can be accessed online via the Sine Contractor Management system at: <https://sine.co/wf/XnqRpCrv>.

The orientation consists of a 40 minute video and short quiz to confirm understanding with an acknowledgement. This online process and webform replaced EHS Form 1004 for contractor orientation receipts. Contractors are required to achieve a score of 4/6 and upon successful completion the orientation is valid for one (1) calendar year. Should a contractor be unable to complete the orientation through the Sine platform, the CUC Contractor Coordinator is to contact EHS for direction. This does not apply to suppliers of services such as taxis, couriers and delivery services e.g. caterers, florist, or similar service providers.

## **100: Roles and Responsibilities**

### **CUC Contractor Coordinator**

This is the CUC management representative or designate that is responsible for your work, its planning and ensuring any EHS requirements are met prior to work starting and ongoing throughout the work. He/she has authority to approve your Job Safety and Environment Plan (JSEP), inspect your crews and work, and request any documentation that he/she determines is necessary in ensuring that you meet all necessary CUC requirements. If you require access to CUC's assets (e.g. Power Plant, Substation), your CUC Contractor Coordinator will ensure all proper security and safety clearances have been met prior to your arrival.

### **EHS Specialist**

This is the CUC representative who is responsible for ensuring that adequate procedures and programming are in place to help identify the hazards of the workplace and assist in ensuring controls/barriers are in place as required for CUC's employees, contractors and the public. This includes ensuring that this handbook is maintained and available for all CUC contract workers. The EHS Department is a resources for EHS activities and information.



### **Supervisor**

This is the contractor representative from your company who will be responsible for organising the work at the worksite each day. The Supervisor is to conduct the Job Safety and Environment Plan (JSEP) review and tailboard meeting, or he/she may delegate this task to a competent individual. The Contractor's Supervisor shall be available to discuss any concerns workers or visitors to the site may have regarding EHS and must be clearly identified in the JSEP.

## Safety (EHS) Officer

This is the contractor representative who is responsible under Cayman Law to provide site orientations and ongoing safety programming as required to all contract staff at a worksite. The Safety Officer is required to have the required knowledge, training and experience to recognise the hazards of the work and provide guidance on procedures and barriers to be used in controlling these hazards. The Contractor's Safety (EHS) Officer should be clearly identified on your Job Safety and Environment Plan (JSEP) form. For more information see The Labour Law - Construction Industry Regulations 2008 Part II, Section 4.



## Additional Roles

Depending on the needs of the company and the work being performed, your contracting company may have an assigned first aid attendant, environmental officer, fire warden and/or additional positions to help mitigate EHS risks.

## 102: Safety Meetings

It is expected that contractors conduct safety meetings at reasonable, documented intervals. These meetings are opportunities for workers to discuss safety concerns in a more formal setting without having to be concerned about their work performance. These meetings can take many forms, but at a minimum, they must have documented minutes and those minutes must be made available to your CUC Contractor Coordinator and EHS upon request. How you conduct your safety meetings is at your discretion, but to provide some guidance, here are sample discussion points you may choose to use as a standing agenda:

- Review past or current incidents and corrective actions
- Review any work observations and their safety implications
- Review safety policies and procedures
- Invite your CUC Contractor Coordinator to review safety concerns
- Review the safe operation of any new tools or equipment
- Review and discussion of an hazards applicable to your work
- Provide a round table discussion for all present and any safety issues/concerns they may have

Safety meetings may be designated meetings, but may also be considered: formal meetings, tailboard meetings, tool box talks and other discussions around your job safety and environment plan.



# 101 - Job Safety and Environment Plan (JSEP)

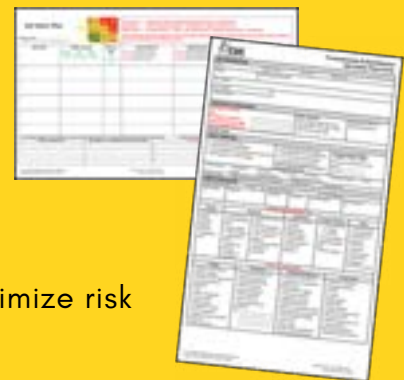


All work must be properly planned, taking into account all workers, the general public, approved work procedures, equipment, and the physical and environmental conditions at the workplace. The purpose of this process is to establish a safe work area, by identifying the job steps, hazards and appropriate barriers. The steps to be taken in case of an emergency shall also be documented. JSEPs shall be available upon request at all job sites and be kept on file for a minimum of 12 months.

It is expected that the contractor has their own job planning procedure - including appropriately detailed forms for use in the field. These forms shall be archived and made available to the CUC Contractor Coordinator and EHS upon request.

Regardless of the type of job planning tool used - the following items shall be included in every job plan:

- Date and location of the work
- Summary of the overall job to be completed
- Names of workers present
- Name and signature of the supervisor or designate
- Major job steps
- Major hazards identified
- Listing of all procedures/barriers used to control/minimize risk



In addition to the above. JSEPs also must ensure:

- First Aid kits and procedures are available and understood by the workers on site
- Emergency procedures and muster points are established and understood by the workers on site
- Spill kit locations are known and readily available in the event of a spill
- Delineating and securing the work area through barriers and other physical controls to prevent other workers or the public coming in contact with hazards created by the work

JSEPs vary by department at CUC, please contact your CUC Contractor Coordinator for a copy of the JSEP you should be using. The Contractor EHS Orientation provides more information on this process.

### 103: Inspections/Worksite observations (WSOs)

It is expected that contractors conduct inspections of the worksite and Worksite Observations (WSOs) at reasonable, documented intervals. These inspections can take many forms, but at a minimum, they must be documented and be made available to your CUC Contractor Coordinator and EHS upon request. How you conduct your inspections is at your discretion, but to provide some guidance, here are sample inspection points that you may choose to include in a checklist form to help guide the inspection:

- Check the daily job plan - ensure that adequate detail is shown for high-risk tasks and the method used to control these risks has been implemented and is effective
- Review traffic protection needs and ensure they align with the requirements in this handbook
- Review any PPE requirements - hard hats, steel toed boots, safety glasses, chaps, ballistic nylon, FR Clothing, hearing protection etc.
- Speak with new or young workers - go over the job plan with them again and ensure that they were given adequate time to review and understand the requirements



It is critical that when hazards and opportunities to improve are identified they are actioned and reported to your CUC Contractor Coordinator. If you need guidance on controlling identified hazards, consult with the relevant section of this handbook, your CUC Contractor Coordinator and EHS.

## 104: Contractor EHS Reporting Requirements

### Incident & Near Miss Reporting

It is expected that CUC contractors report all incidents/accidents/near misses/spills (chemical and/or hydrocarbon) and any hazards or environmental concerns. Do not assume that the incident is too minor to report. Please report all incidents and concerns to your own supervisor and your CUC Contractor Coordinator immediately. CUC expects that you will conduct your own investigations and develop your own incident report with any corrective actions handled in a timely manner. CUC reserves the right to request a copy of your internal report and to see the progress made on your preventative/corrective actions. CUC may determine that it needs to conduct its own investigation and expects full cooperation from contract staff during such an event.



CUC Contractor Coordinators have obligations to report contractor incidents that occur through the EHS SharePoint site. This is allows for EHS and other internal stakeholders to meet requirements for monthly, quarterly and annual reporting along

with identify trends and opportunities for improvement for EHS and contractor management programs.



Reporting and resolving reported concerns can have a **significant positive impact** on your EHS performance and culture. Help CUC foster a culture where reporting near misses (or near 'hits' or close calls) is a positive learning experience.

### Monthly EHS Reporting

Effective January 1, 2025 each contracting company working at or on behalf of CUC are required to complete and submit a monthly report to EHS. The information required to be completed may include, but is not limited to:

- Incidents/accidents/near misses
- Spills/environmental concerns
- Total hours worked
- CUC Contractor Coordinator(s) leading work for the month
- Inspections/WSOs conducted
- Safety meeting(s) conducted
- Other safety initiatives and other activities completed
- Hazards or concerns

If you have any questions on your reporting requirements, speak to your CUC Contractor Coordinator.

## 105: Housekeeping

It is expected that when working for CUC, contractors will keep their work areas as organized as is reasonable given the work and environment. This includes, but is not limited to the following considerations:

- Dispose of waste and recycling in proper containers
- Ensure chemicals are used, stored and disposed of as per manufacturer and regulation requirements
- Keep walkways and emergency exits clear - ensure pedestrians have a clear, safe area in which to move
- When working at heights - ensure that small tools, materials and debris are removed or secured against falling
- When working on customer/resident properties - ensure the utmost care is taken to minimize damage and ensure the site is left in a clean, safe condition

## 107: Environmental

It is expected that when working for CUC, contractors will adhere to all applicable environmental requirements. These include, but are not limited to, the following:

- Utilize CUC's designated recycle material bins for your material waste
- Proper handling and disposal of all rags and other absorbents used to clean hydrocarbon spills
- When bringing chemical or hazardous products onto CUC worksites prior approval is acquired

- Approval requirements include procedures for proper handling, storage transportation and disposal of your chemicals and the availability of Safety Data Sheets (SDSs) for CUC review
- CUC will upload a copy of the SDS into it's online eBinder which is available at: <https://chemmanagement.ehs.com/9/91a9cb30-dc2f-4eda-8bf6-ba88342223c6>

Further to this, ensure that spill prevention and environmental responsibilities are adhered to which include, but are not limited to:

- Follow your task procedures closely and ensure spill prevention and environmental considerations are accounted for in your JSEP
- Ensure secondary containment is in place
- Identify the high-risk areas for spills
- Anticipate spill events from the high-risk sources and take the necessary actions
- Ensure spill recovery devices are at hand



Discuss with your CUC Contractor Coordinator if you are unclear of your environmental responsibilities.

## 106: Personal Protective equipment (PPE)

*From The Labour Law - Construction Regulations 2008, Section 5*



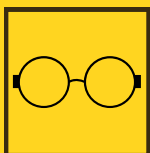
### Hard Hats

Approved hard hats must be type 1 or 2, CSA or ANSI certified and have appropriate electrical ratings.



### Safety Glasses and Goggles

Safety glasses or goggles which meet ANSI Z87 or equivalent shall be worn by all individuals when flying debris or splash hazards exists.



### Prescriptive Glasses

Operatives shall supply their own prescription glasses and wear them. The glasses shall either meet ANSI Z87 or equivalent, or suitable eye protection shall be worn over them.



### Gloves and Hand Protection

Gloves shall be worn when handling equipment, materials or chemicals that may cause cuts or skin irritation based on hazards, Safety Data Sheets (SDS) and manufacturers' instructions. See "Insulated Rubber Gloves" for information on this specialized piece of PPE.



### Safety Footwear

Safety steel toed footwear is required where and when determined that there is an increased risk of foot injury and in designated areas. Footwear must have the required safety markings for protection.



### Hearing Protection

For work in areas where the noise level exceeds 85db, appropriate hearing protection is required. This includes work within the CUC plant area and substations and when working with or around chainsaws, wood chippers and other equipment that produces high-levels of noise.

## 106: Personal Protective equipment (PPE)

*From The Labour Law - Construction Regulations 2008, Section 5*



### High Visibility Apparel and Clothing

Appropriate high visibility apparel and clothing shall be worn when working within CUC's plant area and substations, and while working on roadways or other areas that pose vehicle, machinery/equipment or poor visibility hazards. If working at night, appropriate retro-reflective (silver) striping shall be present on applicable apparel and clothing.



### Leg Protection

Appropriate leg protection (e.g. chaps, ballistic nylon) shall be worn when operating a chainsaw.



### Dust Masks

Simple dust masks designed to filter dust and large particulates, each mask is to be used by one person only and be disposed of at the end of each day or more frequently when, there are high dust or other contaminant levels.



### Respirators

Half or full-face respirators must be worn when working with chemical or hazardous products that identify this control method in the Safety Data Sheet (SDS). Half and full face respirators must be fit-tested and the individual wearing the respirator must be trained, clean-shaven and have cartridges that match the applicable hazard e.g. particulate, organic vapors etc.





### Arc and Flame Rated Clothing

FR Rated clothing must be rated to the appropriate hazard/risk category (HRC for short) as per NFPA. Note that the HRC level can range between level 1 to 4. Level 1 offers the lowest level of protection and level 4 the highest. Generally (and for those not working directly with energised equipment), level 2 is required within designated areas of the plant.

## Arc and Flame Rated Clothing (continued)

At a minimum, HRC-2 protective clothing is required in designated areas and where electrical hazards may be encountered. Higher levels of protection may be required depending on the work task and location. It is NOT acceptable to have non-FR clothing showing (e.g. cotton t-shirt) as it may put you at risk if you were exposed to an arc flash.






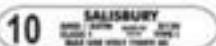






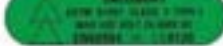



HAZARD/RISK CATEGORY	CLOTHING DESCRIPTION	REQUIRED MINIMUM Arc Rating of PPE Label*
	Arc-rated FR shirt and FR pants or FR coverall (1 layer)	4
	Arc-rated FR shirt and FR pants or FR coverall (1 or 2 layers)	8
	Arc-rated FR shirt and FR pants or FR coverall, and arc flash suit selected so that the system arc rating meets the required minimum (2 or 3 layers)	25
	Arc-rated FR shirt and FR pants or FR coverall, and arc flash suit selected so that the system arc rating meets the required minimum (3 or more layers)	40

## Face Shields

For work involving making or breaking load in flash areas or when specialised tools are being used which would require extra protection (e.g. grinders, meter removal). Face shields shall be worn with a minimum HRC-2 level of protection and meet all ANSI specifications for impact resistance.

## Insulated Rubber Gloves

For work within proximity to energised equipment, specialised loves must be worn and meet the appropriate ASTM voltage class rating (see table below). Gloves must have a valid test date clearly visible on the glove and must not exceed this date. Approved leather protectors must be used at all times and gloves shall be stored properly after use. Gloves must be inspected before use as per manufacturers' instructions.

Class Color	Proof Test Voltage AC / DC	Max. Use Voltage AC / DC	Rubber Molded Products Label	Insulating Rubber Glove Label	Insulating Rubber Dipped Sleeve Label
00 Beige	2,500 / 10,000	500 / 750			
0 Red	5,000 / 20,000	1,000 / 1,500			
1 White	10,000 / 40,000	7,500 / 11,250			
2 Yellow	20,000 / 50,000	17,000 / 25,500			
3 Green	30,000 / 60,000	26,500 / 39,750			
4 Orange	40,000 / 70,000	36,000 / 54,000			

## 109: Securing, Controlling and Delineating Your Work

To protect the public and other workers, it is critical to delineate and secure hazards appropriately to ensure the area cannot be accessed and prevent exposure to hazards. Be sure to confirm these measures with your CUC Contractor Coordinator and have them listed in your Job Safety and Environment Plan (JSEP). Methods to do this will depend on the hazard and may include:

- De-energization and lockout
- Safeguards and covers
- Hoarding or fencing
- Barriers and delineators
- Traffic Control Persons (TCP)
- Safety cones and pylons
- Signage and caution tape

If you have any questions about securing and controlling hazards and your work, or any other questions on general EHS requirements for contractors performing work for CUC - contact your CUC Contractor Coordinator or the EHS Department.





# Requirements for Specific Work Environments

## 200: Work in the Vicinity of Energised Electrical Equipment

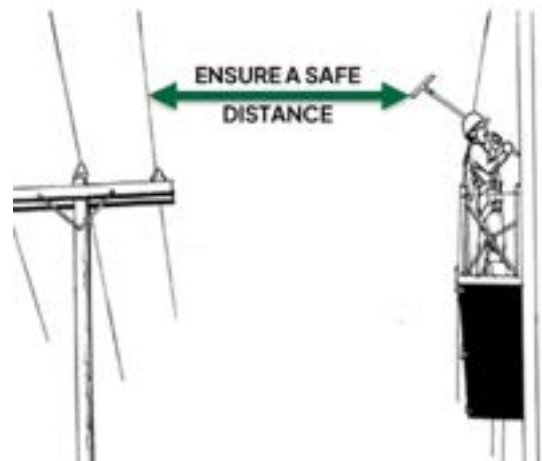
All electrical systems have the potential to cause harm and electricity is extremely dangerous. Serious injuries and fatalities can occur when proper measures are not taken around electricity. The types of injuries include:

- Arc flash and blast - causing burns, vision problems and internal injuries
- Fire - which is very dangerous especially with sensitive equipment, fuels and flammables present
- Electrical shock
- Physical injuries from falls which may occur from electricity knocking you down from shock or a blast

### Limits of Approach

For all workers who are not authorised by CUC, the following chart shows the minimum clearance distances permitted between any exposed energised equipment and the worker (if workers are holding tools or machinery, this is the minimum clearance between the tool/machinery and the energised equipment).

It is expected that the contractor will have an observer on the ground watching these distances to ensure that they are not encroached upon.



Voltage	Minimum Safe Distance
Distribution (up to 15,000 volts)	10 feet
Transmission (69,000 volts)	16 feet

In cases where these limits must be encroached upon to complete work, CUC will provide the necessary work protection, safety controls and supervision to complete the task.

**The installation of rubber cover-up DOES NOT PERMIT you to encroach on these limits without permission.**



## Live Line Work Permits

During your work at CUC, you may be working in proximity to lines which have been identified as being under the control of a Live Line Work Permit. If you require a Live Line Work Permit to perform your work, your CUC Contractor Coordinator will arrange for an authorised CUC permit holder to request and hold the permit for you. For detailed information on this type of permit and if it is required for your work, discuss prior to work starting with your CUC Contractor Coordinator.

### **The following information is provided as reference only:**

*Before authorised CUC workers are permitted to perform work within the previously discussed "Safe Limits", they may be required to request a Live Line Work Permit. This permit requests that the controlling authority at CUC remove the ability for a live line to automatically re-energise when a faulted condition is seen by the system. This normal auto "reclose" feature is what allows lines to remain energised during heavy winds or when other transient problems arise on the system. Without this feature the Island would experience brownouts or blackouts on a regular basis.*

*When these auto-reclosing devices are setup in a live line work permit, the auto feature is disabled and the reclosing device will become 'locked' when it sees any discernable fault on the system. The protection provided is not for the workers on the line, but it prevents the system*

*from burning itself up if a fault exists.*

*This needs to be restated. **A Live Line Work Permit provides no personal protection for workers. It is for equipment protection only.***

## **Contractor Work Protection - Permits to Work**

If you require a **CLEARANCE** to perform your work, your CUC Contractor Coordinator will arrange for an authorised CUC permit holder to request and hold the clearance for you. Prior to any work being performed by a contractor requiring a **GUARANTEE OF ISOLATION** on a system device, a **PERMIT TO WORK** form shall be completed and issued by a CUC Contractor Coordinator to the contractor. This form will include an assessment of the risk of the proposed work and will outline all isolation procedures required to ensure safety while performing the work.



The contractor shall conduct a pre-job hazard assessment of the work area and complete a Job Safety and Environment Plan (JSEP) outlining the needed isolation necessary for the work. This must be agreed to by the contractor and CUC engineering (and other applicable) personnel.

Upon agreement of the required work protection by the contractor and CUC engineering - authorized CUC personnel will perform the necessary switching, isolation, grounding and tagging of equipment, following the issuance of an approved **SWITCHING ORDER** by the CUC controlling authority.

A **PERMIT TO WORK** is required for the following before starting work:

- Work under a clearance or Live Line Work permit
- Work in a confined space
- Work requiring lockout/tagout for all energy forms (mechanical, hydraulic, pneumatic, chemical, steam/water, high pressure gas)
- Hot work (i.e. welding/grinding)

Before CUC can issue a clearance or guarantee of worker protection, there must be the required Permit to Work completed by the contractor and their CUC engineering contact.

### **Tree Trimming and Line Clearing (Bushing)**

The following is related to trimming/felling trees when the Safe Limits of Approach must be encroached (by workers, vehicles/booms or extensible pole pruning equipment). This means that these rules only apply to contractors authorised to work within proximity to energised equipment by CUC:

- A Live Line Work Permit must be in effect whenever there is the possibility of contact, between vegetation and an energised high voltage line

- When trimming in proximity to energised lines at 69 kilovolts (kV), trees or portions of trees encroaching on limits of approach shall be removed with the circuit de-energised and grounded (i.e. with a Clearance in effect)
- In such situations the CUC Clearance holder will apply safety grounds at the work site, place barriers as necessary, and ensure that the work to be undertaken does not create hazards to life, property or service
- Contractors cannot start work until CUC's Clearance holder has explained the hazards involved and has ensured that the work crew understands the parameters of the safe work area

**This discussion shall be documented and signed off by the CUC Clearance holder during the Job Safety and Environment Plan (JSEP).**



## Tree Trimming and Line Clearing (Bushing) - *continued*

- Tree trimming and clearing near energised conductors may only be performed by authorised CUC employees or those individuals trained and authorised by CUC
- CUC may choose to introduce additional compliance requirements for vegetation management practices to ensure compliance to EHS and quality standards to address risks

## 200: Working at Heights

Working at height (**above four (4) feet**) requires that workers employ controls to protect against a fall. Working at heights is a detailed topic and high-risk activity that requires specific training and equipment. The intention of this section of the handbook is to reinforce these concepts only.

Control measures must be taken when working from heights. The controls are listed here in accordance with the fall protection hierarchy.

- **Elimination** - the preferred solution is eliminating the fall hazard completely. If possible, take action to eliminate the fall and working from height.
- **Guardrails and Physical Barriers** - Employ control measures to prevent the ability to access the edge such as physical barriers like guardrails around unprotected edges, and covers over holes should be used.

- **Travel Restraint** - Limiting (by any means necessary, including ropes, guardrails, visible barriers, fall restraint harness) the workers ability to access an area where he/she could fall more than 4 feet.
- **Work Positioning and Fall Restriction** - To be used when the worker is using a structure (including permanent or properly secured ladders) as a work platform. This approach considers that the platform is providing a layer of fall protection on its own, so less engineered approaches to fall protection can be employed. A common example is the use of a simple harness and lanyard to maintain work positioning on a ladder.
- **Fall Arrest** - A fully-engineered and appropriately rated system. The system commonly includes a full-body harness with appropriate attachment points, properly rated multi-action connectors and a shock absorbing lanyard. This must be used whenever a potential free-fall risk exists and when working in specific high-risk work environments (e.g. working from a bucket of an aerial device and working in a confined space).



## Applicable Legislation Continued

*From The Labour Law - Construction Regulations 2008*

CUC may have policies and Standard Operating Procedures (SOP) that require controls to be in place that provide greater safety factors than those listed in the regulations. For a full list of the requirements, see Labour (Occupational Safety and Health) (Construction Industry) Regulations, 2008

### Regulatory Requirement - Scaffolds

(2) A scaffold shall be used where there is no solid construction to stand on and where the work cannot be done safely while standing on a ladder.

(3) Manufacturers' guidelines shall be followed at all times.

(4) A scaffold shall be erected only by trained individuals.

(5) Scaffolds must not be used in severe weather such as strong winds and thunderstorms.

(6) Unstable objects or makeshift devices to increase the working height of a scaffold shall not be used, and portable ladders as a means of increasing the working height may be used only after the Safety Officer has determined that the stability of the structure has not been compromised and adequate fall protection is in place.

(7) Straddling, standing on, or working outside of, the guardrail is prohibited.

(14) A worker shall not position himself, or use tools or equipment, where there is a possibility of contacting an energized overhead line; if any portion of the body of the worker will or is likely to come within 20 feet of an energized line, an electrical utilities provider shall be contacted for additional requirements.

**See CUC SOP-205 Scaffold Safety for more information and requirements.**



## Applicable Legislation Continued

*From The Labour Law - Construction Regulations 2008*

CUC may have policies and Standard Operating Procedures (SOP) that require controls to be in place that provide greater safety factors than those listed in the regulations. For a full list of the requirements, see Labour (Occupational Safety and Health) (Construction Industry) Regulations, 2008

### Regulatory Requirement - Fall Arrest and Ladders

(2) A safety harness and lanyard shall be worn in any of the following circumstances:

- on all scaffolds with incomplete decking or incomplete guardrails;
- on sloping roofs;
- within 6 feet of the edge of floors or roofs where there is no edge protection.

**Note: CUC standard is four (4) feet as noted within this handbook**

Further requirements include, but are not limited to:

- (3) The operator of a workplace shall ensure that a worker using a harness or lanyard is trained to wear it correctly and to use it safely.
- (4) A lanyard shall be fastened to the full body harness and secured to an object...that is capable of holding 5,000 pounds...
- (5) A lanyard shall not allow a fall of 5 feet or more.
- (19) A harness or lanyard shall be inspected daily by the person using it.

For Ladders, requirements include, but are not limited to:

- (2) A ladder shall be inspected prior to use.
- (3) A ladder with loose, broken or missing rungs, split or bent side rails, or other defects shall be removed from service.
- (4) A ladder (other than a stepladder) shall extend approximately 3 feet above a safe landing or parapet wall.
- (5) A ladder shall be set up with a 4-vertical to 1-horizontal slope.
- (6) A metal ladder or wire-reinforced wooden ladder shall not be used near an energised electrical conductor.**

(21) Regarding Stepladders:

- Spreaders shall be locked in place and legs fully extended.
- The top two steps of a stepladder shall not be used for standing.
- Stepladders shall be used at 90 degrees to the work; not adjacent to the work.

## Aerial Devices

Aerial devices/boom trucks shall be operated in accordance with current legislation and manufacturers' specifications and instructions. Safe limits of approach must be maintained as instructed in this handbook.

Aerial devices/boom trucks shall be visually inspected for structural, mechanical and hydraulic defects, including holding valve checks, each day prior to the equipment being used. These inspections shall be performed in accordance with manufacturers' specifications and current legislation, and shall be documented.



In addition:

- Workers shall not be permitted to remain in the bucket of an aerial device during emergency lowering operations when pressure on the hydraulic system is manually released
- An approved safety harness attached to an approved lanyard system, shall be worn by any worker in the aerial device
- Insulated aerial lift vehicles and equipment used for rubber glove work, must be tested and approved

## 202: Working on Roadways

*From Labour (Occupational Safety and Health) (Construction Industry) Regulations, 2008, Section 25.*

- Where a hazard exists, signs, signals and barricades warning of that hazard shall be put in place and be visible at all times
- A street, road, highway or other public thoroughfare that is closed to traffic shall be protected by barricades on which shall be placed secure and highly visible warning signs or signals
- Barricades shall be located at the nearest intersecting street, road, highway or other public thoroughfare on each side of the blocked section
- Open trenches and other excavations at locations referred to in the above item shall be provided with suitable signs, signals or barricades to ensure adequate protection to the public; obstructions such as piles of materials and equipment shall be provided with similar warnings

The barricades and obstructions referred to in the regulation shall be illuminated by means of warning signs or signals from sunset to sunrise. Materials stored on or alongside a street, road, highway or other public thoroughfare shall be so placed, and the work at all times shall be conducted, so as to cause minimal obstruction and inconvenience to the public. Anything that is placed due to a hazard shall be removed when the hazard no longer exists.

## 202: Working on Roadways - *continued*

In addition to the legislative requirements on the previous page, be sure to:

- Follow PPE requirements
- Have situational awareness, do not be on your cellphone and always maintain lines of sight
- Communicate properly to those involved and ensure your JSEP is completed and accounts for hazards associated with working on roadways
- Know the safe locations of where to stand
- Ensure signage and traffic cones are visible



Working on Cayman roadways and thoroughfares requires the application of reasonable traffic control methods. Always err on the side of caution regarding traffic control. If you decide that the level of control is more than what is necessary for your safety, you can remove cones/shorten tapers to accommodate after watching traffic response, assessing risk and updating the JSEP.

Many roadways in Cayman are too narrow to allow for working vehicles to be present and allow the free flow of traffic. If you are concerned about your level of traffic control stop work immediately, review the Job Safety and Environment Plan (JSEP) and discuss alternatives.

These may include but are not limited to:

- Starting work at a less busy time of day
- Requesting a road closure with traffic control persons present
- Requesting RCIP officers in busy intersections/roadways to assist in controlling the flow of traffic

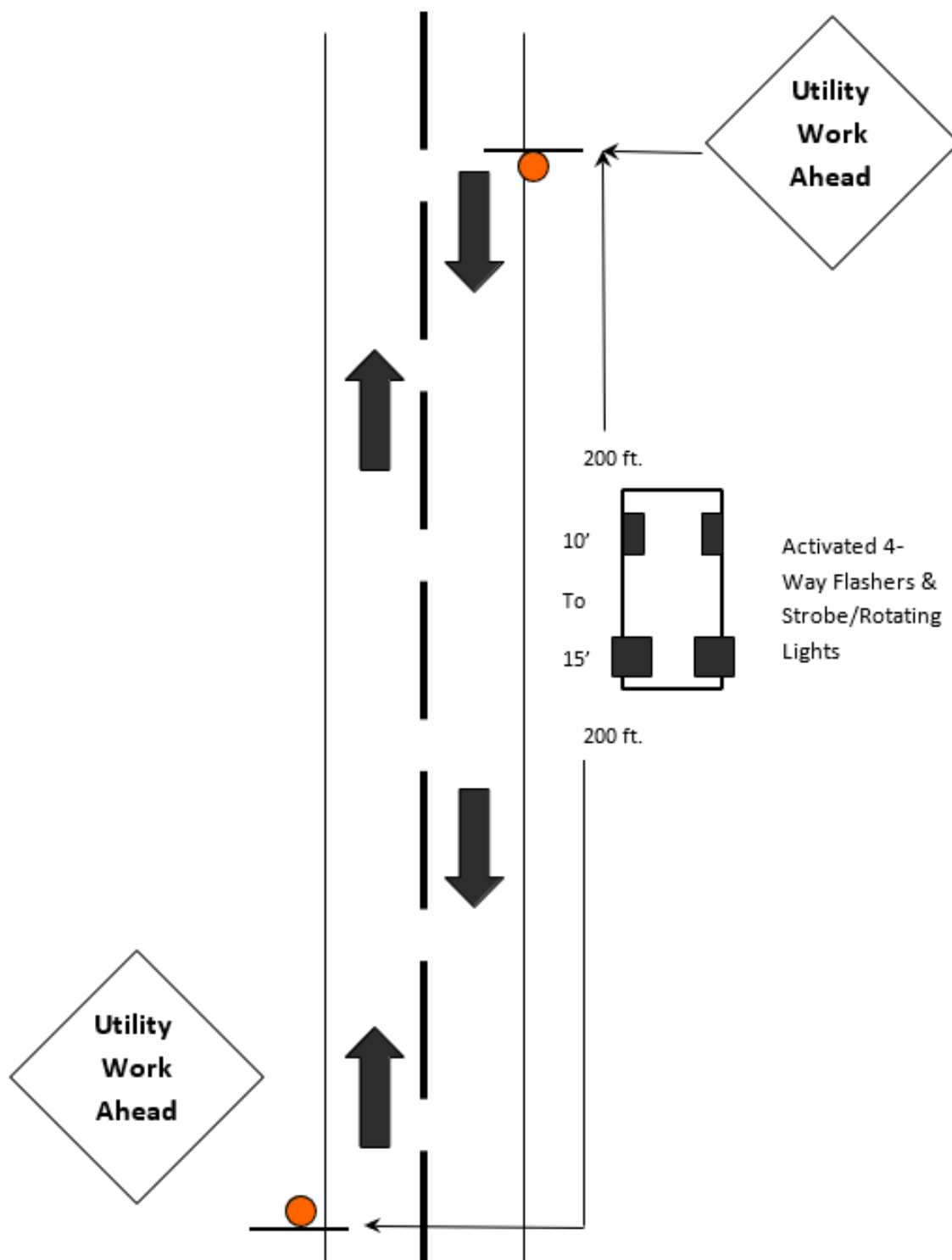
The following are to assist in the JSEP process. If you have concerns, please contact your CUC Contractor Coordinator for clarification.

- Workplace barriers around vehicles should consist of at least ten (10) cones for heavy-duty vehicles and at least eight (8) for other operational vehicles, this includes applicable space for tapering or guiding traffic when applicable
- Wherever possible, barriers around vehicles shall be on the traffic side and shall be at the front and the rear sections of the vehicle to alert oncoming traffic, these barriers shall consist of both signs and cones.

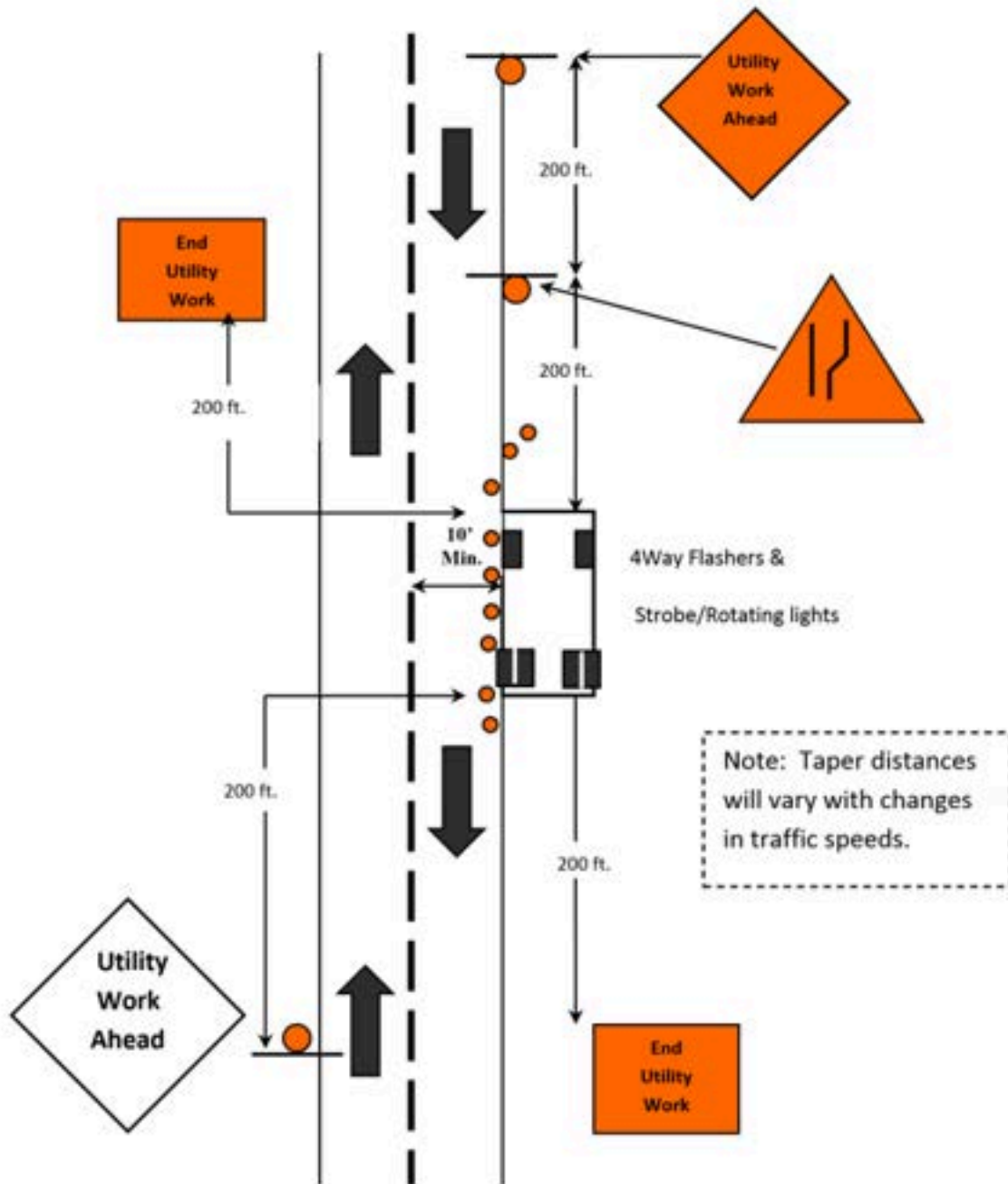
**Obey all posted speed limit signs on public roadways and within the CUC plant and substations.**



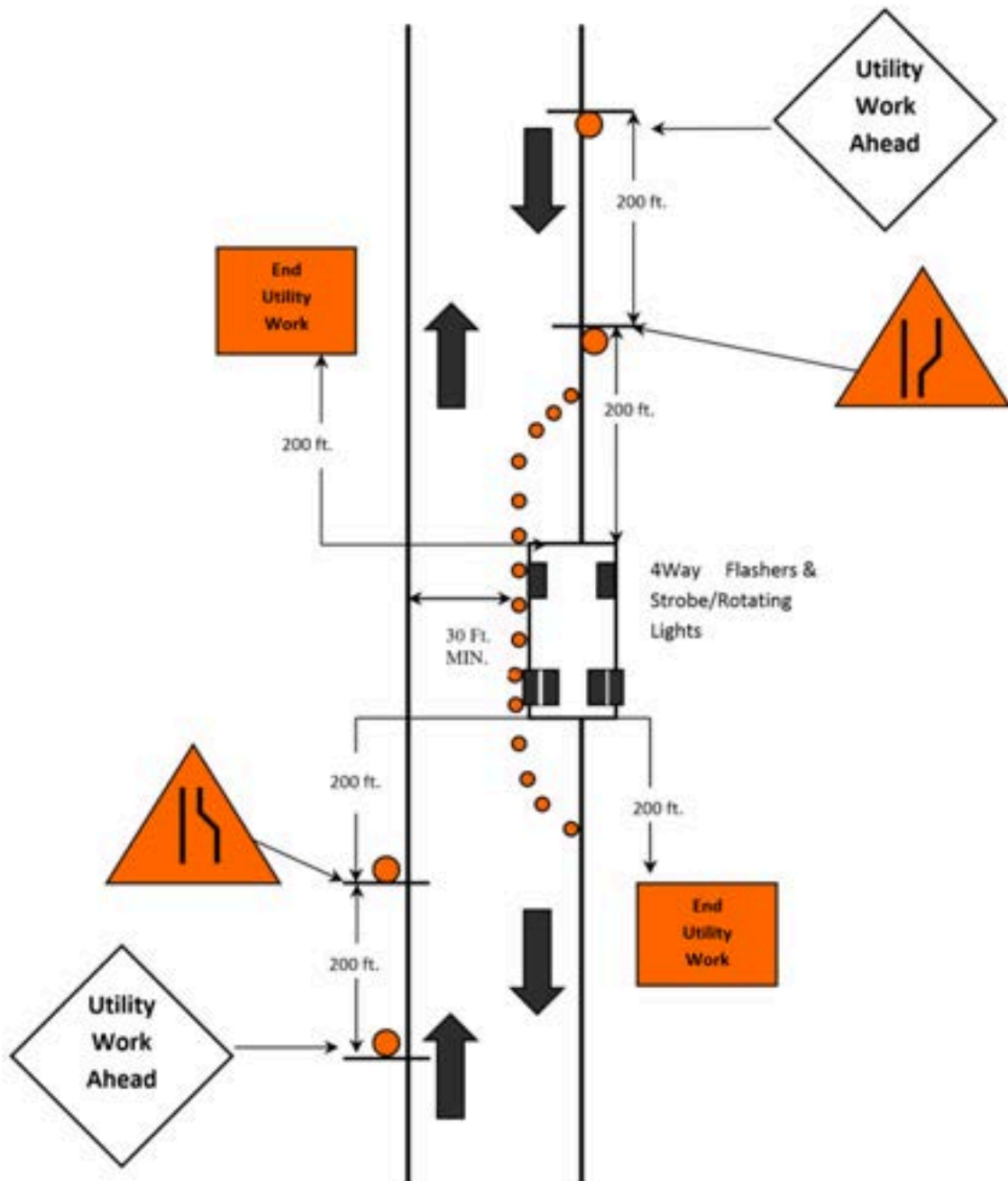
## Traffic Protection - Outside the Shoulder



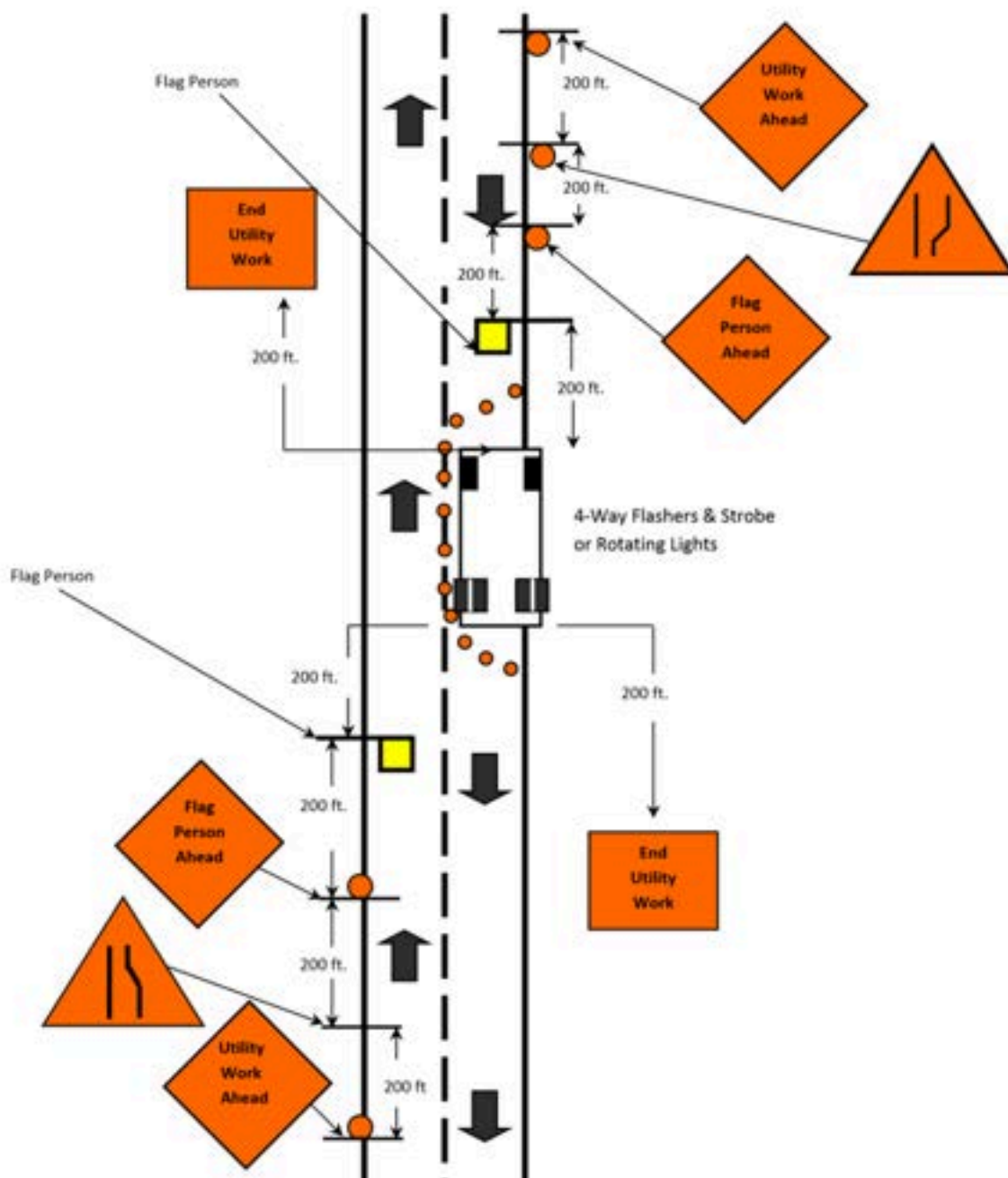
## Traffic Protection - On the Shoulder



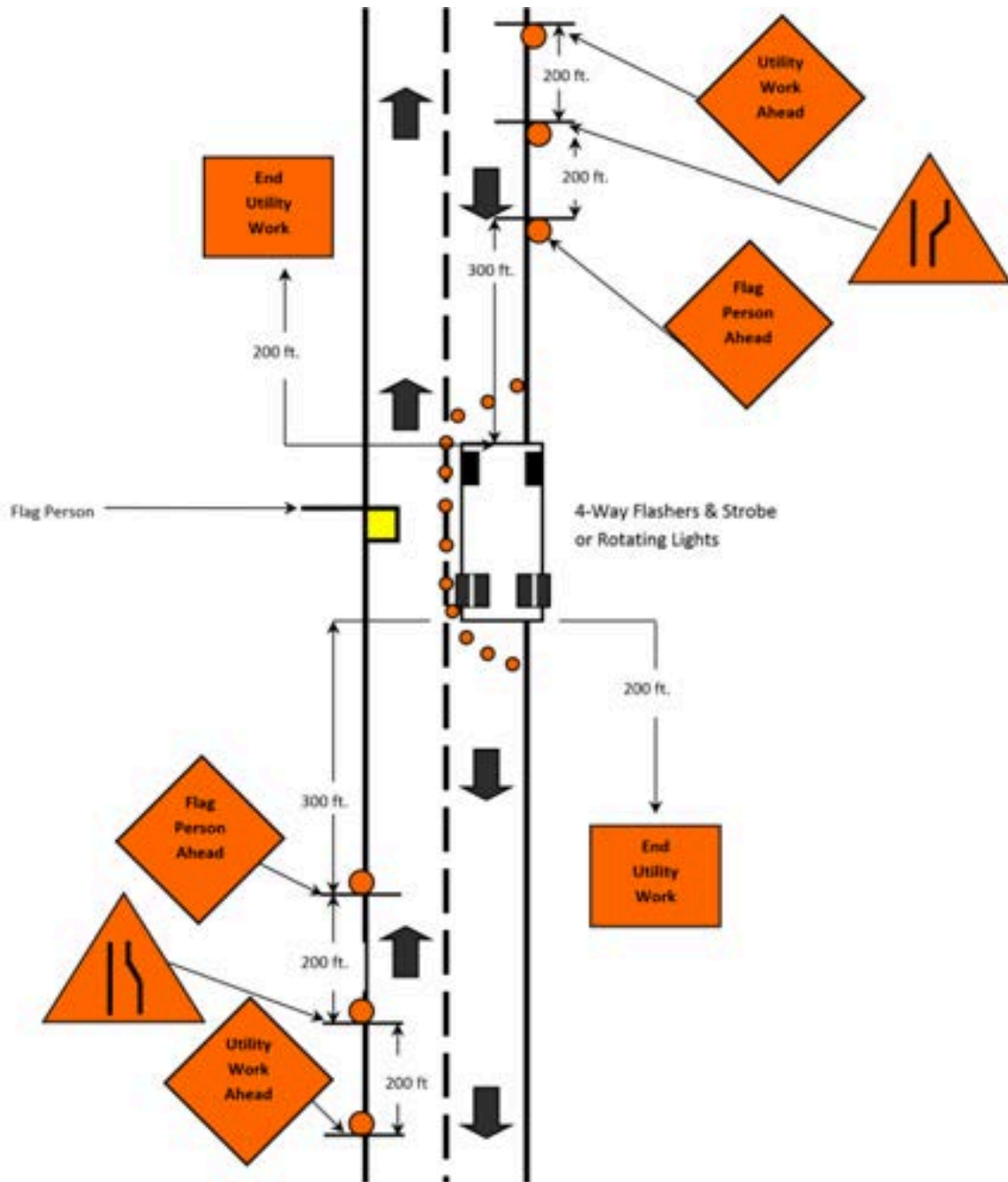
## Traffic Protection - No Centre Line Low Volume Roadway



## Traffic Protection - Lane Closure on 2 Lane Roadway



## Traffic Protection - Lane Closure on 2 Lane Low Flow



## 203: Chainsaws/Wood Chippers

### Chainsaws:

Requirements for working with chainsaws include but are not limited to:

- Gasoline-powered chainsaws shall be equipped with an anti-kickback chain or device and a chain brake
- Workers must be trained and competent in the use and maintenance of chainsaws
- No one other than the operator shall be within six (6) feet of a chainsaw in operation
- Manufacturers' instructions must be followed and hazards/controls identified in applicable job safety and environment planning forms
- See Section 106: Personal Protective Equipment (PPE) for protective clothing requirements

### Wood Chippers:

Requirements for working with wood chippers include but are not limited to:

- Prior to servicing, the ignition should be in the off position and the key removed or the chipper shall be otherwise rendered inoperable
- See Section 106: PPE for protective clothing requirements
- Workers shall not stand or walk directly in front of the exhaust chute when the chipper is operating
- Do not use hands or feet to push brush past the face of the feeder chute
- Do not tamper with any safety interlocks/devices

- When feeding brush into a chipper, workers shall wear loose fitting gloves and stand to one side of the feeder chute to prevent injury due to kickback
- installed by the manufacturer for safety
- Manufacturers' instructions must be followed and hazards/controls identified in applicable JSEP forms

## 204: Trenching and Shoring

*From Labour (Occupational Safety and Health) (Construction Industry) Regulations, 2008 , Section 28.*

- Excavations and trenches shall be inspected by a Safety Officer daily and after every significant rainfall to determine if they are safe
- Ladders or steps shall be provided in all trenches 4 feet or more in depth and shall be located so as to require no more than 25 feet of lateral travel before having access or egress
- Material excavated shall be stored at least 2 feet from the edge of the excavation or trench and shall be stored so as to prevent material from falling into the excavation
- All trenches and excavations shall be barricaded during times when no work is taking place to prevent persons from walking into them
- A barricade may consist of steel reinforcing rods driven into the ground with caution tape strung between
- See SOP 310 Trenching and Excavations for more information

## 205: Working within CUC's Plant and Substations

Unless your work requires a specific guarantee of isolation under a Permit to Work (Section 200: Contractor Work Protection - Permits to Work) access to CUC's facilities is approved by your CUC Contractor Coordinator. It is his/her responsibility to ensure that CUC's Security Department is notified of the date of your arrival, your contact details and the nature of your work prior to your arrival at CUC. You will be required to check in through the contractor and visitor management program in place to monitor contractor activities and confirm requirements (i.e. Contractor EHS Orientations) have been met prior to entry.



This handbook contains summary information and references on important environment, health and safety topics. It is important to understand that these detailed topics such as fall protection, scaffolds, chemical safety, electricity etc. have further training requirements from within your contracting company. The intention of this handbook is to reinforce these concepts only.

While this document covers many common scenarios, it cannot cover every conceivable situation you might encounter while performing your job duties. As unexpected situations arise that may impact the environment or your health and safety, CUC will distribute applicable information to these unexpected events. Your CUC Contractor Coordinator will also share such relevant information with you should any unexpected event arise. It is expected that you follow such requirements as you would for all other scenarios described in this document.



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