CUC Contractor/Subcontractor Health, Safety and Environmental Handbook

Environmental, Health & Safety Department

Revised June 2018

You've got the power

This handbook is not a contract, either expressed or implied

Reviewed by David Watler, VP Operations

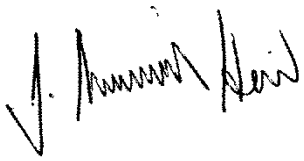
Revised by Joni Kirkconnell, June 2018

Message from Richard Hew, CUC's President and Chief Executive Officer

This CUC Contractor/Subcontractor Health, Safety and Environmental 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 hazards and reduce risk of physical injury in the workplace and to meet the requirements of OHSAS 18001 and ISO-14001, internationally-recognised occupational health, safety and environmental management systems standards.

When the guidelines contained in this handbook are 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 constantly alert 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 guidelines and instructions contained in this manual.



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

June 2018

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EMS Form 1004: Employee/Contractor Orientation Receipt

This form is used to acknowledge receipt of having received Orientation training on the Environmental, Health, and Safety policies of CUC. Orientation training given by a qualified CUC employee to any person employed or contracted by CUC.

Name _____ **Email Address** _____
**Please Print Legible* **Please Print Legible*

Phone Number _____

I am a/an

☐ Temporary Worker — Department _____

☐ Student — School _____
☐ I am a part of CUC's Vocational Programme

☐ Contractor — Employer _____
Job Title _____
CUC Coordinator _____

☐ Employee — Employee No. _____
Position Title _____
Department _____

In signing this form I hereby confirm that I have been oriented on CUC's Environment, Health and Safety policies and procedures and that the information provided about me is accurate.

Further, I understand and agree that receiving the CUC Contractor Handbook and/or this orientation is not a substitute for formal training nor does it create or imply a contract of any kind, expressed or implied.

Signature _____ **Date** _____

Orientation Given By _____ Department ☐ EHS ☐ HR Other: _____

Signature _____ Date: _____

Rev: 3
Date Revised: May 5, 2016
Revised By: A Agee
Approved By: J Kirkconnell

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General Requirements for all Employees
100: Roles and Responsibilities

Contractor Coordinator

This is the CUC management representative that is responsible for your work, its planning and ensuring any safety requirements are met prior to work starting. He/she has authority to approve your job plan, inspect your crews at 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 Contract Coordinator will ensure all proper security and safety clearances have been met prior to your arrival.

Safety 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 requisite 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 Officer should be clearly identified on your daily job planning form.

For more information see *The Labour Law – Construction Industry Regulations 201120112011 Part II, Section 4.*

Safety Specialist

This is the CUC representative who is responsible for ensuring that adequate procedures and programming are in place to identify the hazards of the workplace and create controls/barriers as required for CUC's workers. This includes ensuring that this handbook is maintained and available for all CUC contract staff.

Supervisor

This is the contractor representative who will be responsible for ***organising the work*** at the worksite each day. The supervisor may conduct the pre-job hazard review (tailboard) 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 have regarding safety.

101: Job Planning

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. Job plans 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 Contract Coordinator on 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
- Brief summary of the overall job to be completed (can use a work order number if available)
- Names of staff 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

To View Job Planning Forms – see ATTACHMENTS

102: Safety Meetings

It is expected that CUC 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 Contract Coordinator on their 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
- Review any work observations and their safety implications
- Review any new safety policies/procedures
- Invite your CUC Contract Coordinator to review safety concerns
- Review the safe operation of any new tools
- Provide a round table discussion for all to present any safety issues/concerns they may have

103: Inspections/Work observations

It is expected that CUC contractors conduct workplace inspections/observations **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 Contract Coordinator on 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 form for your use (or as guidewords to assist in directing your inspection):

- Check the daily job plan - ensure that adequate detail is shown for high risk tasks and the method used to control these risks.
- Review traffic protection needs and go over the requirements in this handbook.
- Review any special PPE requirements - chaps, ballistic nylon, FR Clothing, hearing, etc.
- Talk 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

104: CUC Safety Reporting Requirements

It is expected that CUC contractors report **all incidents/accidents/near misses/spills and any hazards. Do not assume that the incident is too minor to report. Please report all concerns to your own supervisor and your CUC Contract 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 progress made on your corrective actions. CUC may determine that it needs to conduct its own investigation and expects full cooperation from contract staff during such an event.

Reporting and dealing with reported concerns can have a large positive effect on your safety performance and culture. Help CUC foster a culture where reporting near misses (or near 'hits') is a positive learning experience.

105: Housekeeping

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

- Store trash in proper containers
- Ensure chemicals are used, stored and disposed of as per manufacturer and regulation requirements
- Keep walkways clear - ensure pedestrians have a clear, safe area in which to move
- When working at height - ensure that small tools, debris cannot be accidentally dropped
- 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

106: Personal Protective Equipment (PPE)

From *The Labour Law - Construction Regulations 201120112011*

1. **Hard hats:** Approved hard hats meeting specifications contained in ANSI Z89.1-1981 or Z89.2-1971, or both, shall be worn by all operatives on open construction sites and at all times where there is a risk of head injury from falling objects and where instructed by the Safety Officer. All CUC work locations require approved head protection.

2. Safety Glasses and Goggles: Safety glasses or goggles which meet ANSI Z87 or equivalent shall be worn by all operatives whenever and wherever flying debris is likely and where instructed by the Safety Officer.
All CUC work locations require approved safety eye protection.

3. Prescription 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.

4. Gloves: Gloves shall be worn when handling equipment, materials or chemicals that may cause cuts or skin complaints and where instructed by the Safety Officer.

5. Footwear: Safety steel toe-cap footwear shall be required by the Safety Officer where and when he determines that there is an increased risk of foot injury. All CUC work locations require approved safety footwear.

6. Non-operatives: Non-operatives (company office staff, project owners, architects, engineers, government inspectors, guests and all others) shall wear such safety protection as is determined by the Safety Officer to be necessary at any given time, based upon his assessment of the level of risk at that time.

CUC's PPE Requirements (in addition to those above)

7. Hearing Protection: For work in areas where the noise level exceeds 85db, appropriate hearing protection is required to lower the levels below 85db. This includes work with or around chainsaws and wood chippers as well as identified areas within the CUC production facility.

8. Arc and Flame Rated Clothing: A minimum of HRC-1 protective clothing is required where the potential exists for flash fire exposures. As a minimum, HRC-2 protective clothing is required where exposure exists where electrical hazards may be encountered.

Note: Please consult with your CUC Contractor Coordinator to ensure appropriate protective clothing is worn as determined by a hazard assessment.

9. 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.

10. Insulated Rubber Gloves: For work within proximity to energised equipment. The gloves must meet the appropriate ASTM voltage class rating and have a valid test date clearly visible on the glove. Approved leather protectors must be used at all times and gloves shall be stored properly after use.

11. Leg Protection: Appropriate leg protection (chaps, ballistic nylon) shall be worn when operating a chainsaw.

12. Traffic Protection / High Visibility Clothing: Appropriate high visibility clothing shall be worn when working on roadways and when working in the confines of CUC's Power Plant facilities. If working at night, appropriate retro-reflective (silver) striping shall be present on the garment.

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:

- Proper handling and disposal of all rags and other absorbents used to clean hydrocarbon spills
- When bringing chemicals of any description onto CUC worksites prior approval is required

- Approval requirements include procedures for proper handling, storage and transportation of your chemicals and the availability of material data sheets (MSDS) for CUC review

Discuss with your Contract Coordinator if you are unsure of your environmental responsibilities.

Requirements for Specific Work Environments
200: Work in the Vicinity of Energised Electrical Power Plant

Limits of Approach

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

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
All secondary (600 volts and below)	40 inches*
Primary Distribution (up to 15,000 volts)	10 feet
Transmission (69,000 volts)	16 feet

***Only permitted with previous agreements with CUC - otherwise 10 feet.

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

Note: 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.

Note: If you require a Live Line Work Permit to perform your work, your CUC Contract 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 Contract 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 (or Hold Off) provides no personal protection for workers. It is for equipment protection only.

Contractor Work Protection – *Permits to Work*

Note: If you require a CLEARANCE to perform your work, your CUC Contract 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 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 the safety of the project.

The contractor shall conduct a pre-job hazard assessment of the work area and complete a job plan outlining the needed isolation necessary for the work. This must be agreed to by the contractor and CUC engineering 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 prior to starting the 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**

*** Note: Before CUC can issue a clearance or guarantee of worker protection, there must be the requisite** *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 group understands the parameters of the safe work area. This discussion shall be documented and signed off by the CUC Clearance holder during the daily job plan.
- Tree trimming and clearing near energised conductors may only be performed by authorised CUC employees or those individuals trained and authorised by CUC.

201: Working at Heights

Working at height (above 6 feet[1]) requires that workers employ one of three approaches to fall protection. [2]

Listed from most to least complex:

- **Travel Restraint -** Limiting (by any means necessary, including ropes, guardrails, visible barriers, body belts) the workers ability to access an area where he/she could free fall more than 6 feet.
- **Work Positioning / 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

[1] *The Labour Law – Construction Industry Regulations 2011 Part VI, Section 13.*

[2] This is a detailed topic that requires training and equipment. The intention of this guide is to reinforce these concepts only.

approaches to fall protection can be employed. A common example is the use of a simple body belt 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).

From *The Labour Law – Construction Regulations 2011 and CUC Safety Policy*

EQUIPMENT	REGULATORY REQUIREMENT
Scaffolds	• 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. • Manufacturers' guidelines shall be followed at all times. • A scaffold shall be erected only by trained individuals. • 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. • Straddling, standing on, or working outside of, the guardrail is prohibited. • **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.
Fall Arrest Systems	**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;

	• **in any unprotected elevated position 6 feet or more.** **Further requirements** • 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. • A lanyard shall be fastened to the full body harness and secured to an object…that is capable of holding 5, 000 pounds… • A lanyard shall not allow a fall of 5 feet or more. • A harness or lanyard shall be inspected daily by the person using it.
Ladders	• A ladder shall be inspected prior to use. • A ladder with loose, broken or missing rungs, split or bent side rails, or other defects shall be removed from service. • A ladder (other than a stepladder) shall extend approximately 3 feet above a safe landing or parapet wall. • A ladder shall be set up with a 4-vertical to 1-horizontal slope. **A metal ladder or wire-reinforced wooden ladder shall not be used near an energised electrical conductor**. 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 within: • the limitations of the manufacturers' specifications; • current legislation; and • the *Safe Limits of Approach* • 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. • *Workers* shall not be allowed 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 employee 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 *The Labour Law – Construction Regulations 2011*

25. (1) Where a hazard exists, signs, signals and barricades warning of that hazard shall be put in place and be visible at all times.

(2) 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.

(3) Barricades shall be located at the nearest intersecting street, road, highway or other public thoroughfare on each side of the blocked section.

(4) Open trenches and other excavations at locations referred to in paragraph (2) 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.

(5) The barricades and obstructions referred to in this regulation shall be illuminated by means of warning signs or signals from sunset to sunrise.

(6) 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 minimum obstruction and inconvenience to the public.

(7) Anything that is placed due to a hazard shall be removed when the hazard no longer exist.

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.

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 plan 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 (flagmen)
- Requesting RCIP officers in busy intersections/roadways to assist in controlling the flow of traffic.

The following are guidelines to assist in your job planning process. If you have concerns, please contact your CUC Contract 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.*

(See attachments for Sample Traffic Setups)

203: Chainsaws and Wood Chippers

Chainsaws:

1. Gasoline-powered chainsaws shall be equipped with an anti-kickback chain or device and a chain brake.
2. Workers must be trained and competent in the use and maintenance of chainsaws.
3. No one other than the operator shall be within 6 feet of a chainsaw in operation.

See *Section 106: Personal Protective Equipment* for protective clothing requirements.

Wood Chippers:

1. Prior to servicing, the ignition should be in the off position and the key removed or the chipper shall be otherwise rendered inoperable.
2. See *Section 106: Personal Protective Equipment* for protective clothing requirements.
3. Workers shall not stand or walk directly in front of the exhaust chute when the chipper is operating.
4. 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.
5. Do not use hands or feet to push brush past the face of the feeder chute.
6. Do not tamper with any safety interlocks / devices installed by the manufacturer for worker safety.

204: Trenching and Shoring

From *The Labour Law - Construction Regulations 2011, 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.

205: Working within CUC's Production Facilities

Security Access

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 Contract 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.

Your CUC Contract Coordinator (or his/her delegate) will review any site-specific safety requirements with you and CUC's Security Department prior to your first work date.

You will be required to sign in/out each day at CUC for the duration of your contract and follow any directions by CUC's Health & Safety Department, CUC's Security Department and your CUC Contract Coordinator.

Blue and Red Zones

CUC's Power Plant and facilities are separated by a controlled fence and through internal procedures. If your contract requires you to enter the controlled areas of CUC – your Contract Coordinator (or delegate) will provide a site orientation which will include necessary Personal Protective Equipment specific to the identified zones at CUC. The site is clearly marked with PPE requirements as a reminder after your orientation. As always, CUC security is available to answer further questions regarding the site upon your arrival.

A list of Red Zone areas include:

- All Engine Rooms;
- The interiors of substations: North Sound (69kV and 13kV), Hydesville, South Sound and Frank Sound;
- Within the fenced boundary of the Prospect, Bodden Town, Seven Mile Beach and Rum Point Substation;
- External fuel terminals;
- Fuel pipeline (whilst working near fuel pipeline);
- T&D lines and equipment.

List of Attachments

Samples of

- Job Planning Form 1A/B – Production Division
- Job Planning Form 2A/B – Transmission & Distribution
- Job Safety Analysis Form 3A/B
- Incident Reporting Form 4A
- Traffic Protection – Set-ups with minimum Requirements 5A – 5E
- Worksite Observation Assessment Sheet Form 6A/B

Sample of **Job Planning Form 1A - Production Division**

Production Division

Job Planning Form1A

Emergency Contact Numbers:	**Channel ___**	**Other: _____**
Emergency Response Plan Completed and Discussed with all Workers on Site: ❒ Yes ❒ No ❒ N/A **Location of Muster Point:** _____		
Supervisor:	Tailboard Designate:	
Job/Project:	Location(s):	

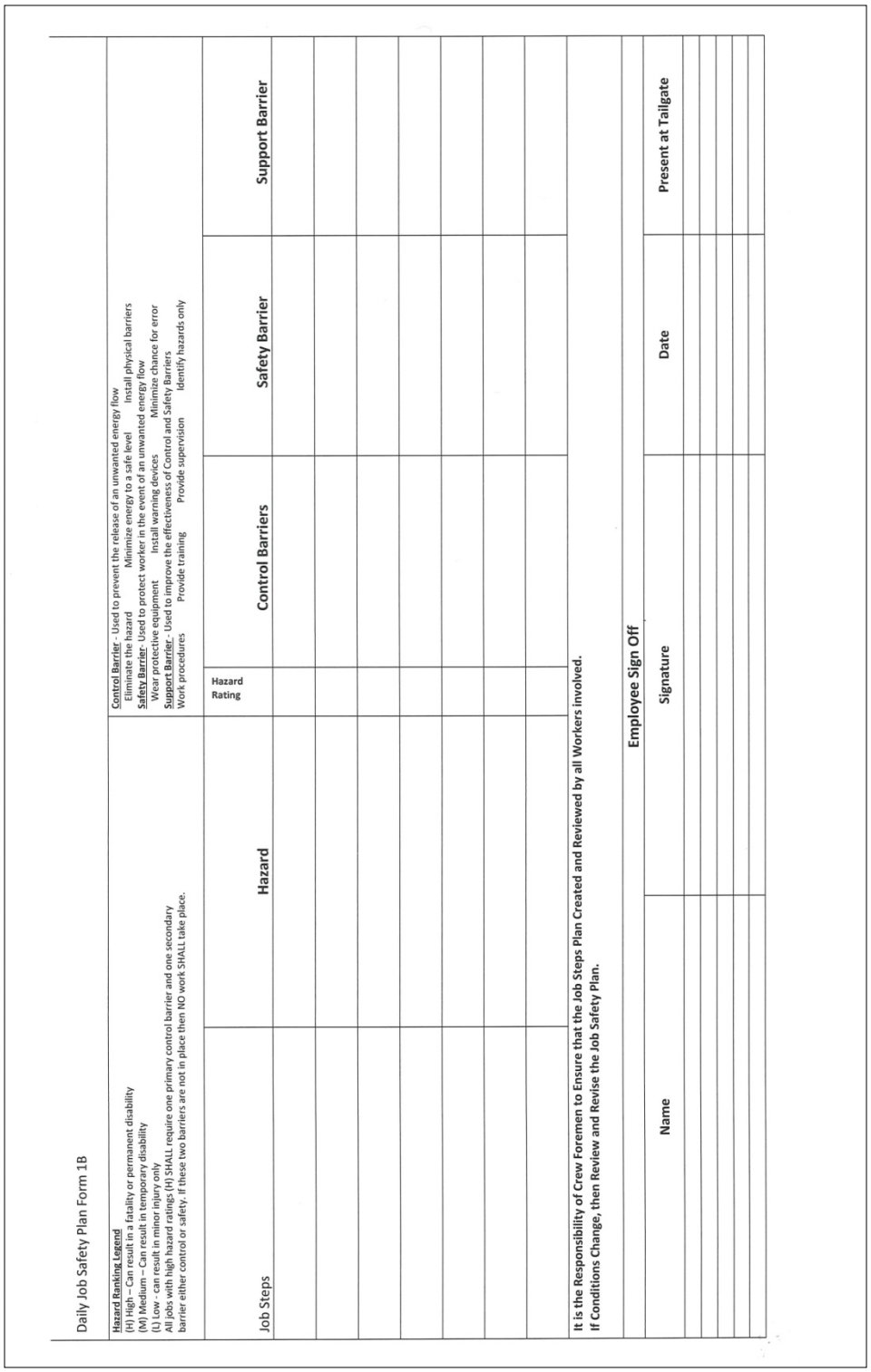
High visibility clothing Hard hats, safety glasses and other appropriate PPE may be required depending upon work activates.

Crew Members Present:

Protection Type			
❒ Control Room Notified	❒ Self-Protection	❒ Isolation Point(s)	❒ No Protection Required
Switching Order(s):			
❒ Chemical(s) Used:			
❒ Specialty Tools / Equipment:			
Clearance Number: _____	Issued to: _____	Date: _____	

We Need to Consider				
Work Environment	**Electricity**	**Hardware & Equipment**	**Environment**	**Energy Sources**
Other Work Groups Contractors Public Safety Weather Conditions Remote Locations Communications Certifications Confined Spaces Moving Vehicles/Equip. Falling from Heights Falling Objects Slips and Falls	Live Apparatus Induction/Back Feed Second Point of Contact Ground Gradients Arc/Flash Potential Min. Approach Distances Vehicle Grounding Equipment Grounding	Equipment Failure Tension Loads/Springs Hoisting and Rigging Overhead Cranes Load Properly Secured Moving Parts Sharp Objects/Tools Rotating Machinery Chain Saws Brush Saws Rubber Glove Leakage Test Stick Inspected/Checked	Fording of Water Bodies All Terrain Vehicles Water Bodies Emergency Response Hydrocarbon Spill/Leaks Bridges	Water Pressure Air Pressure Noise Levels Excavations Hydraulic Pressure

Sample of **Job Planning Form 1B - Production Division**



Daily Job Safety Plan Form 1B

Hazard Ranking Legend
(H) High – Can result in a fatality or permanent disability
(M) Medium – Can result in temporary disability
(L) Low - can result in minor injury only
All jobs with high hazard ratings (H) SHALL require one primary control barrier and one secondary barrier either control or safety. If these two barriers are not in place then NO work SHALL take place.

Control Barrier - Used to prevent the release of an unwanted energy flow
Eliminate the hazard Minimize energy to a safe level Install physical barriers
Safety Barrier- Used to protect worker in the event of an unwanted energy flow
Wear protective equipment Install warning devices Minimize chance for error
Support Barrier: - Used to improve the effectiveness of Control and Safety Barriers
Work procedures Provide training Provide supervision Identify hazards only

Job Steps	Hazard	Hazard Rating	Control Barriers	Safety Barrier	Support Barrier

It is the Responsibility of Crew Foremen to Ensure that the Job Steps Plan Created and Reviewed by all Workers involved.
If Conditions Change, then Review and Revise the Job Safety Plan.

Employee Sign Off

Name	Signature	Date	Present at Tailgate

Sample of **Job Planning Form 2A - Transmission & Distribution Division**

CUC
You've got the power

Transmission & Distribution Job Planning Form

SUPERVISOR: _____ DATE: _____ Estimated time: _____

W/O#	Job Being Performed:

Office Discussion:

- ☐ **Overall job and crew focus for the day**
- ☐ **Switching and Grounding plans (if applicable)**
- ☐ **Crew complement, qualifications and experience**

Traffic Control: Lane Block☐ Shoulder☐ Partial☐ Full☐ Beacons/Flashers☐ Signs☐ Cones☐ Flag Persons Required☐
Vehicle Setup: Holding valve check prior to daily use☐

Crew Leader:	Crew Members:

Job Location:

Emergency Contacts: 911 Line Dispatch: 914-1187 Control Room: 914-1170
Radio Frequency: 5-1

Job Site Discussion

WORK PROTECTION ☐ A ☐ N/A

Non – Reclose ☐	Feeder#:	Time On	Time Off	Work Permit #		Self Protection ☐

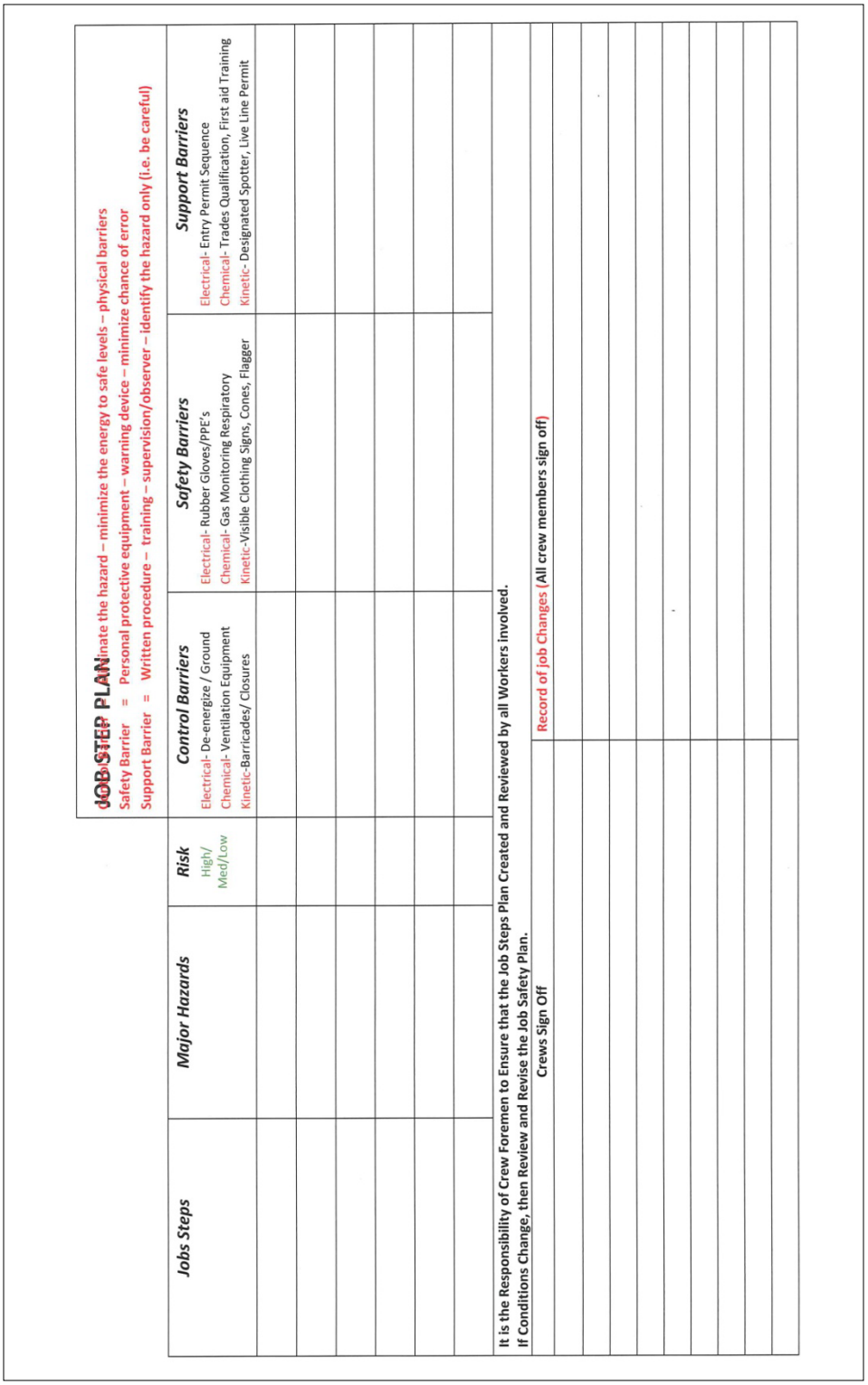
HAZARD IDENTIFICATION LIST

Gravity	Electricity		Mechanical	Kinetic/Vehicular	Other
☐ Falling from heights ☐ Falling objects /structures ☐ Dangerous trees	☐ Live apparatus ☐ Induction / Back feed ☐ Static charge ☐ Ground gradients ☐ Flash potential ☐ Underground utilities ☐Step potential	☐Second Point of Contact ☐Ground Gradients ☐Arc/Flash Potential ☐Min. Approach Distances ☐Vehicle Grounding ☐Equipment Grounding	☐ Equipment failure ☐ Tension loads /springs ☐ Moving parts ☐ Sharp objects ☐ Deterioration of structure / apparatus	☐ Traffic conditions ☐ Driving conditions ☐ Moving / Shifting loads ☐ Vehicle stability	☐ Confined space ☐ Flammable or explosives ☐ Chemicals ☐ Asbestos ☐ Extreme heat / cold ☐ Pressurized fluids/gases

HAVE WE CONSIDERED

People	Procedures	Hardware/Equipment	Environment
☐ Worker qualifications ☐ Worker fatigue ☐ Lifting and twisting strains ☐ Outside influence /distractions ☐ PPE ☐ Other work groups ☐ Other utilities ☐ Public safety ☐ Pedestrian Control ☐ Communications	☐ De-energized apparatus ☐ Check for potential ☐ Adequate grounding ☐ Work Protection ☐ Limits of approach ☐ Vehicle grounds ☐ Work methods ☐ Operational Control Procedures List:_____ _____ _____ _____	☐ Condition of structures ☐ Inspection of equipment/ tools / vehicle ☐ Safe loads for rigging ☐ Temporary support ☐ Adequate cover-up ☐ Adjacent structures ☐ Booms inspected& cleaned ☐ Inspect rubber cover up ☐ Non-standard construction ☐ Contamination Reading ☐Chain Saws ☐Brush Saws ☐Rubber Glove Leakage Test ☐Stick Inspected/Checked	☐ Weather conditions ☐ Lighting conditions ☐ Terrain ☐ Locates ☐ Water bodies ☐ Spills/leaks ☐ Waste disposal ☐ Significant Natural Areas ☐ Permits to work: ☐ Other potential environmental impacts

Sample of **Job Planning Form 2B - Transmission & Distribution Division**



JOB STEP PLAN

Control Barrier = Eliminate the hazard – minimize the energy to safe levels – physical barriers
Safety Barrier = Personal protective equipment – warning device – minimize chance of error
Support Barrier = Written procedure – training – supervision/observer – identify the hazard only (i.e. be careful)

Jobs Steps	*Major Hazards*	*Risk* High/ Med/Low	*Control Barriers* Electrical- De-energize / Ground Chemical- Ventilation Equipment Kinetic-Barricades/ Closures	*Safety Barriers* Electrical- Rubber Gloves/PPE's Chemical- Gas Monitoring Respiratory Kinetic-Visible Clothing Signs, Cones, Flagger	*Support Barriers* Electrical- Entry Permit Sequence Chemical- Trades Qualification, First aid Training Kinetic- Designated Spotter, Live Line Permit

It is the Responsibility of Crew Foremen to Ensure that the Job Steps Plan Created and Reviewed by all Workers involved.
If Conditions Change, then Review and Revise the Job Safety Plan.

Crews Sign Off	Record of job Changes (All crew members sign off)

Sample of **Job Safety Analysis Form 3A**

Job Safety Analysis Form 3A Sample Only

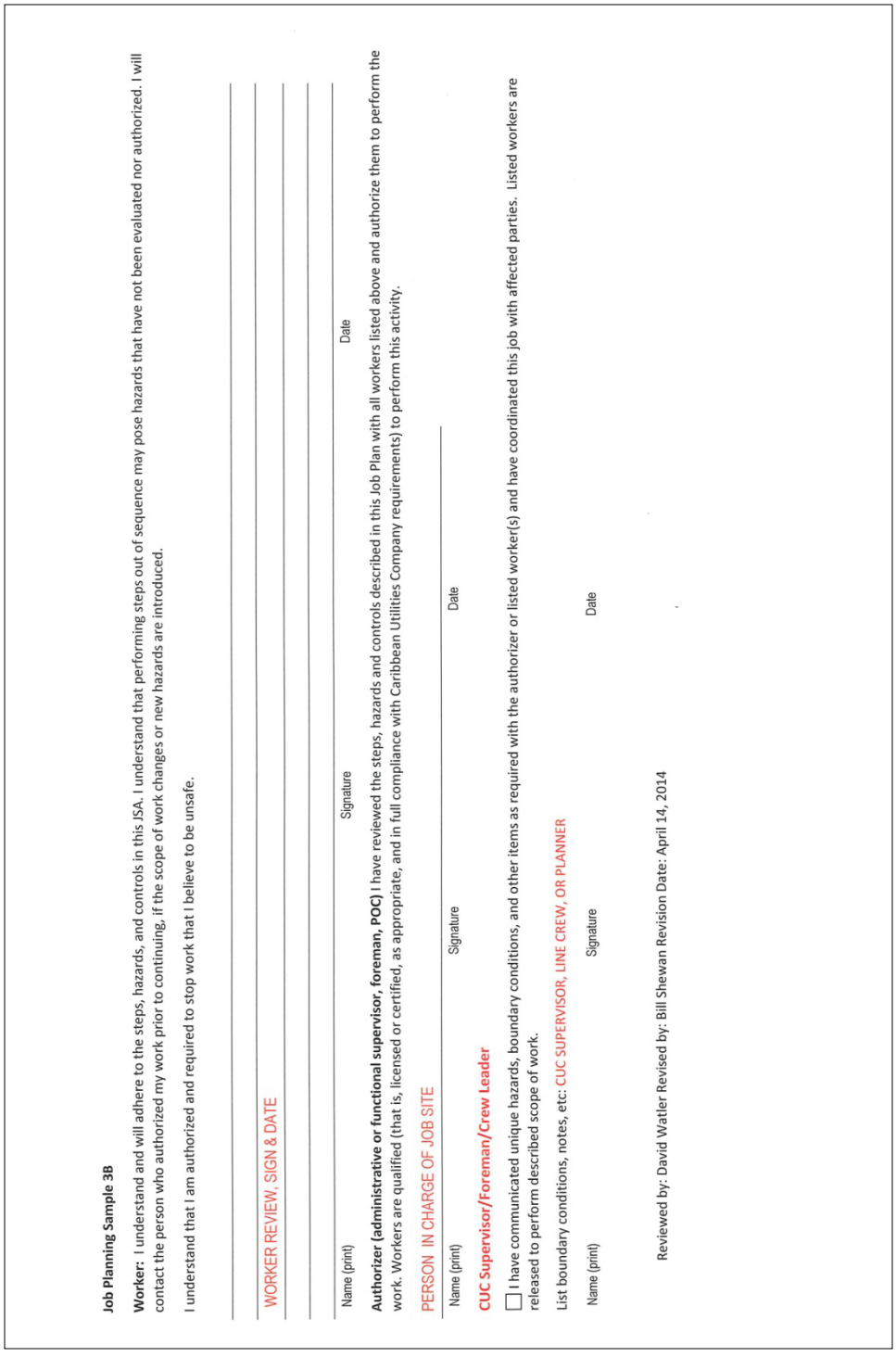
Job / Activity Name: Extend Weather head		**W/O # ######**	**Start Date:**00/00/00	**Valid Through:**00/00/00
Department / Group Name: Lines/Planning	**Bldg / Area Location(s):** House #21 Spinnaker Way	**PPE requirements:** ☐Hard Hat, ☐Steel toe Boots, ☐Safety Glasses ☐Visible clothing ☐Safety Vest ☐ Work Gloves ☐Rubber Gloves ☐Harness/Lanyards ☐FR Clothing	
Scope of Work (Work Order Attached ☐) Extend weather head and replace service wire on pole #			

Hazard Identification List: SELECT HAZARDS ASSOCIATED WITH TASK

☐ Falling from heights ☐ falling objects /structures ☐ Dangerous trees ☐ live apparatus ☐ exposed energized conductors ☐ Limits of approach ☐ Underground utilities ☐ Traffic conditions ☐ Public safety☐ Confined space ☐ Condition of structures ☐ Weather conditions ☐ Terrain ☐ Other utilities ☐ Pole in Poor Condition

Step	Job Step	Major Hazards	Controls
1.	Area Set Up	Traffic, Pedestrians, Live Equipment	Cones, signs, Barricades, rubber gloves, service de-energized, rubber coverup
2.	Set up scaffolding	Falls from heights, Load shifting, Stability, Live lines	Proper rigging, harness/lanyard, scaffold inspections daily, scaffold levelling, utilize proper lifting techniques, work gloves rubber coverup
3.	Set up ladder	Falls from heights, load shifting, Stability	Fiberglass ladder, place on firm footing, non-slip feet, Structure inspection, ladder tied off, harness/lanyard
4.	Extend weather head/ change service wire	F/H Live lines,	Harness/lanyard, rubber gloves, proper rigging

Sample of **Job Safety Analysis Form 3B**



Job Planning Sample 3B

Worker: I understand and will adhere to the steps, hazards, and controls in this JSA. I understand that performing steps out of sequence may pose hazards that have not been evaluated nor authorized. I will contact the person who authorized my work prior to continuing, if the scope of work changes or new hazards are introduced.

I understand that I am authorized and required to stop work that I believe to be unsafe.

WORKER REVIEW, SIGN & DATE

Name (print) Signature Date

Authorizer (administrative or functional supervisor, foreman, POC) I have reviewed the steps, hazards and controls described in this Job Plan with all workers listed above and authorize them to perform the work. Workers are qualified (that is, licensed or certified, as appropriate, and in full compliance with Caribbean Utilities Company requirements) to perform this activity.

PERSON IN CHARGE OF JOB SITE

Name (print) Signature Date

CUC Supervisor/Foreman/Crew Leader

☐ I have communicated unique hazards, boundary conditions, and other items as required with the authorizer or listed worker(s) and have coordinated this job with affected parties. Listed workers are released to perform described scope of work.

List boundary conditions, notes, etc: CUC SUPERVISOR, LINE CREW, OR PLANNER

Name (print) Signature Date

Reviewed by: David Watler Revised by: Bill Shewan Revision Date: April 14, 2014

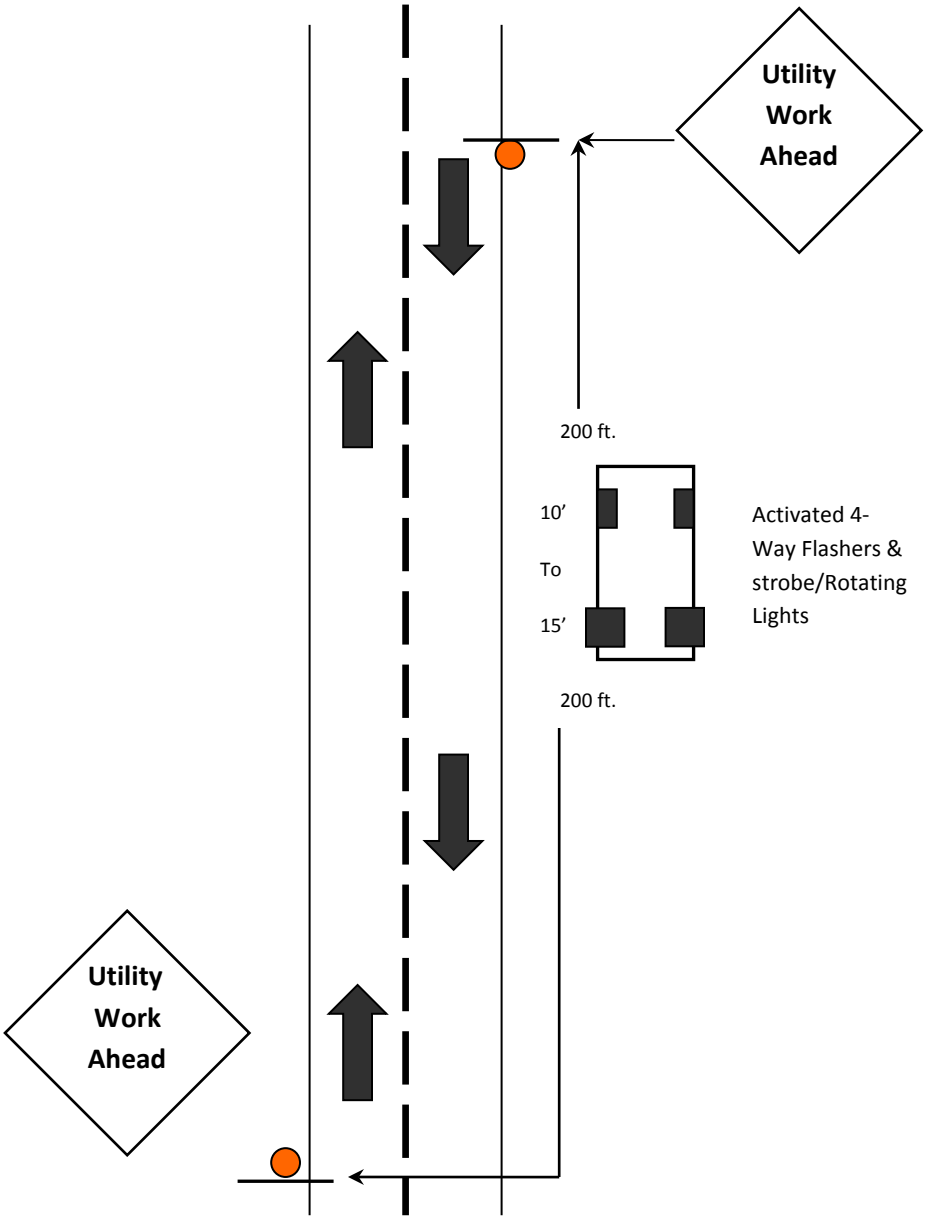
Sample of **Incident Reporting Form 4A**

INCIDENT REPORTING FORM 4A

LOCATION/DEPARTMENT:		
DATE & TIME OF OCCURRENCE:		
DID THE ACCIDENT RESULT IN:	**Medical Aid? Y/N** **Lost time? Y/N** **Near Miss? Y/N**	
LIST EMPLOYEES INVOLVED:	**Name**	**Job Title**
DESCRIPTION OF THE ACCIDENT / NEAR MISS	**DESCRIBE THE PROTECTION OR METHODS IN PLACE TO REDUCE OR ELIMINATE THE RISK**	
LIKELY CAUSE(S) OF UNWANTED EVENT: **1.** **2.** **3.**		
CHANCE OF RECURRENCE? (circle one)	**High** **Moderate** **Low**	
ACTIONS TAKE TO PREVENT RECURRENCE: **1.** **2.** **3.**	**PERSON RESPONSIBLE AND DATE FOR COMPLETION** **NAME:** **DUE DATE:** **NAME:** **DUE DATE:** **NAME:** **DUE DATE:**	
SUPERVISOR'S SIGNATURE *(SIGN OFF WHEN ALL ACTIONS COMPLETED)* Date:		

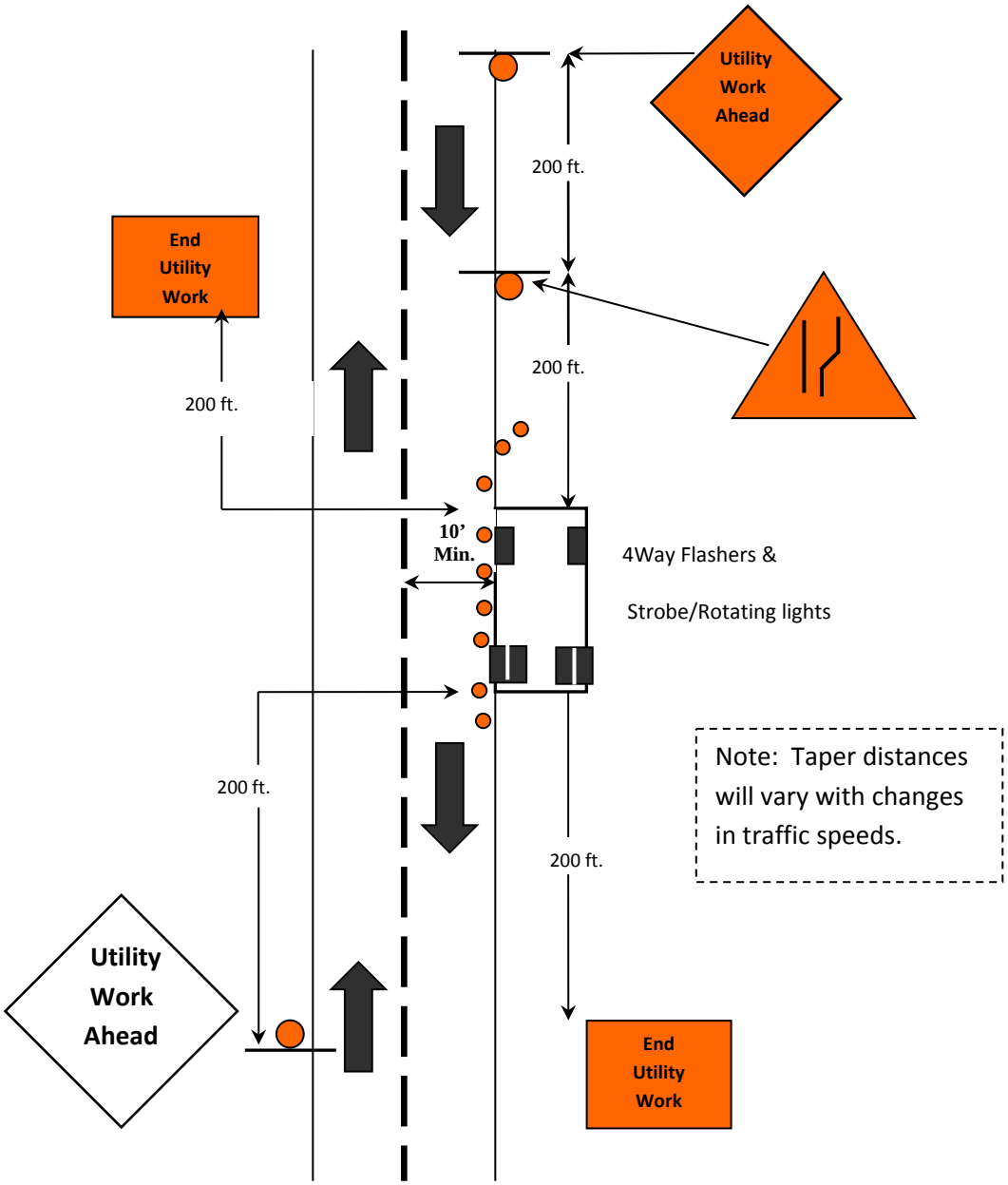
Traffic Protection

Outside the Shoulder 5A



Traffic Protection

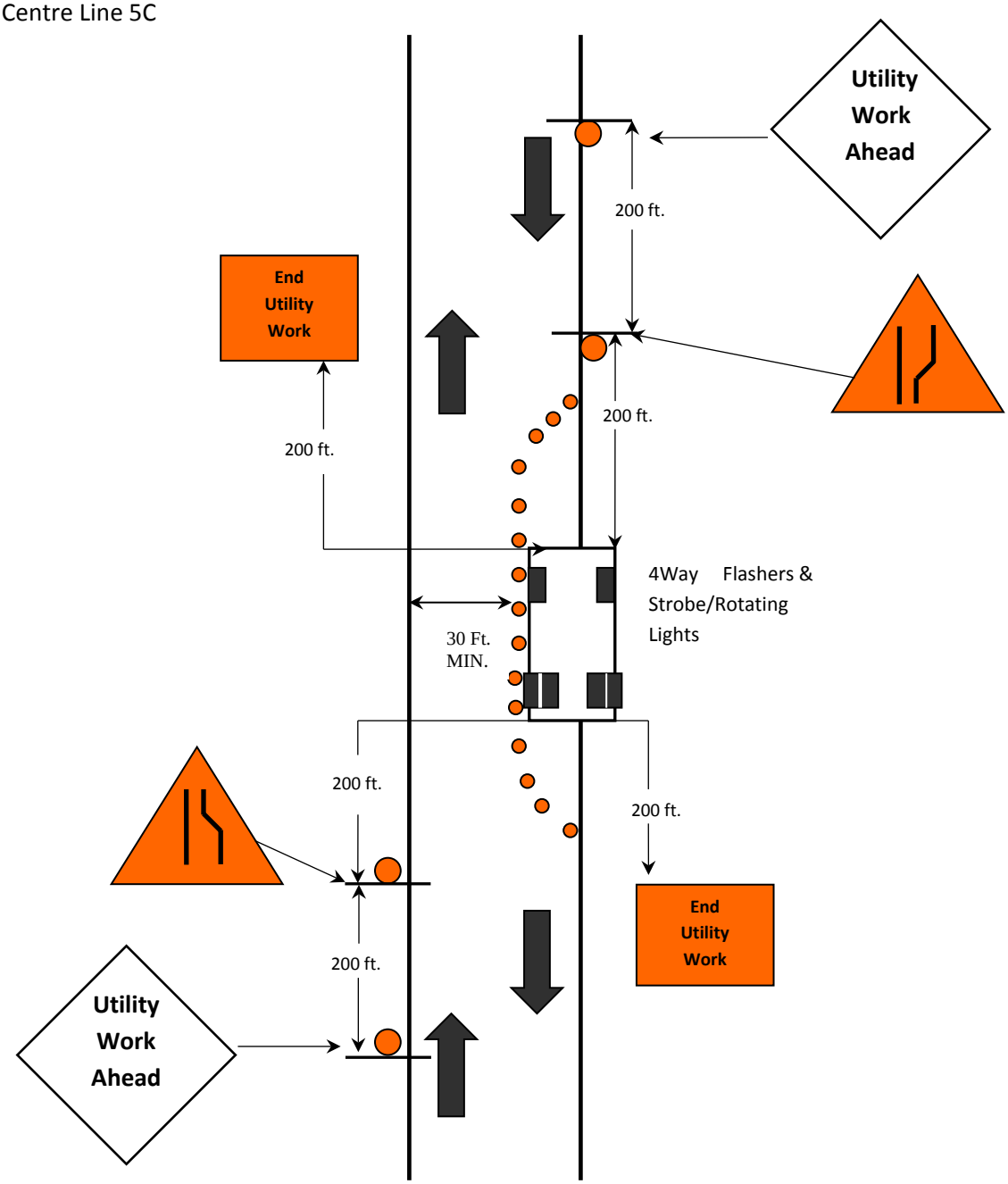
On the Shoulder 5B



Traffic Protection

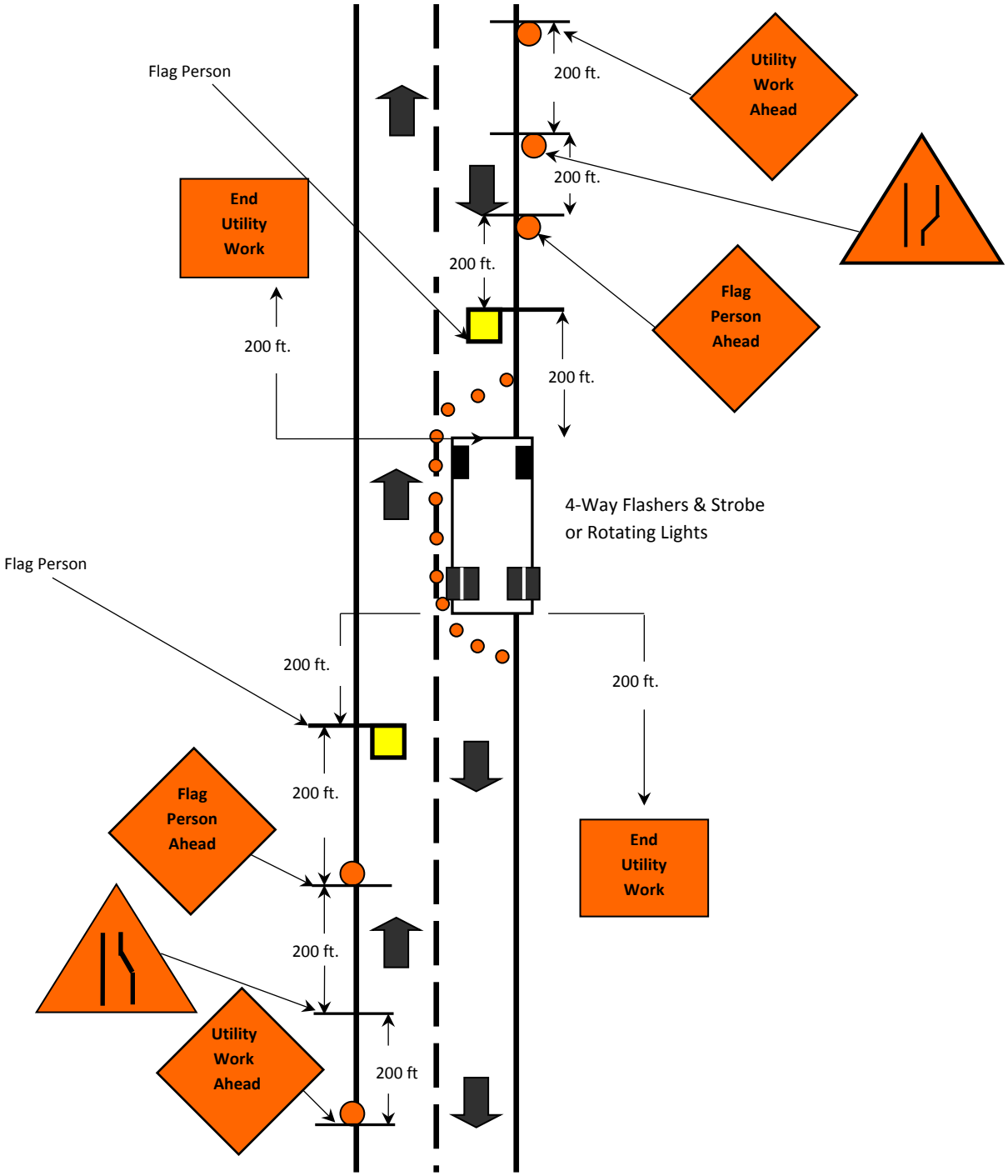
Low Volume Roadway

No Centre Line 5C



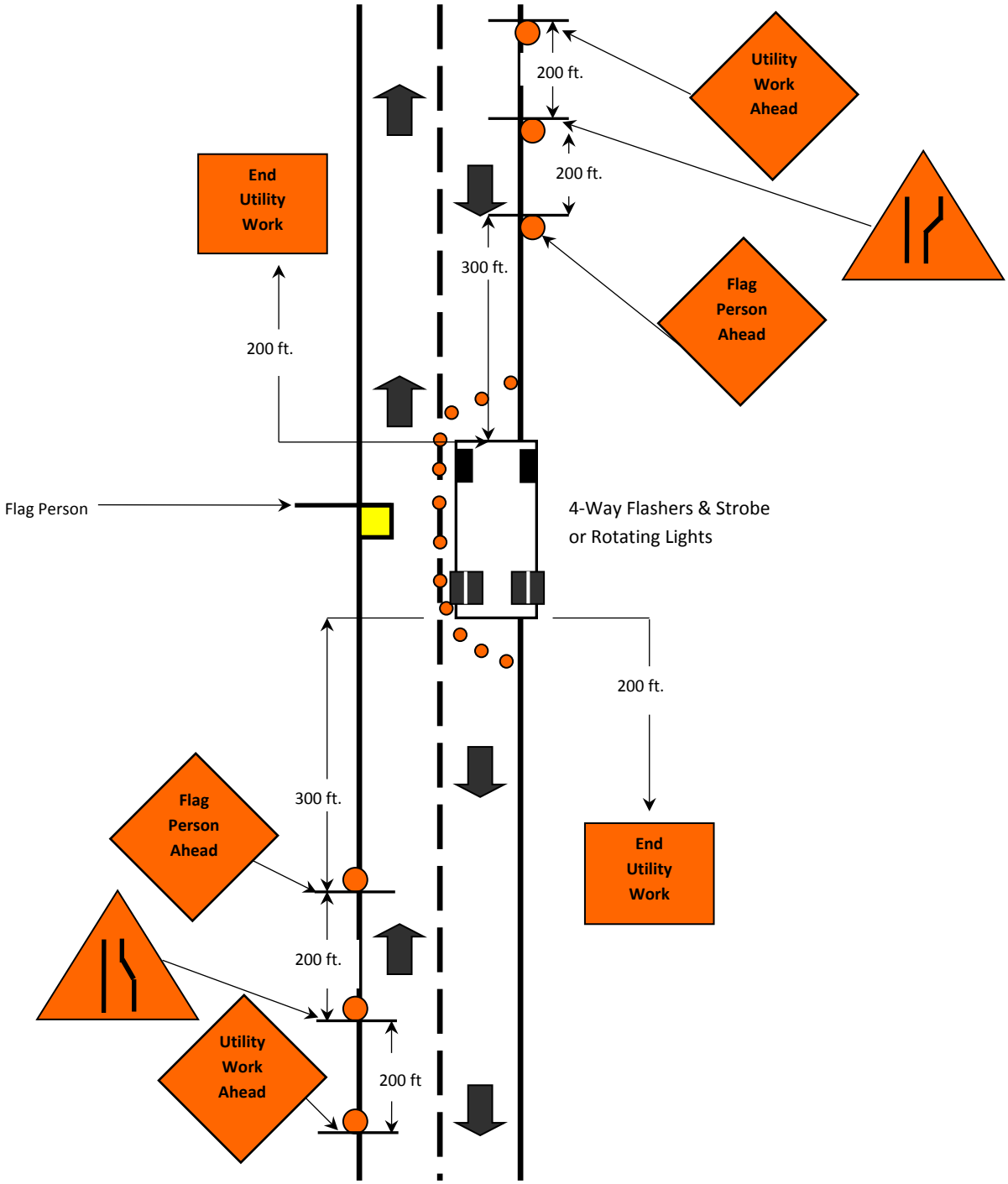
Traffic Protection

Lane Closure - 2 Lane Roadway (2 Flag Persons) 5D



Traffic Protection

Lane Closure - 2 Lane Low-Flow (1 Flag Person) 5E



Sample of **Worksite Observation Assessment Sheet Form 6A** (front)

Worksite Observation Assessment Sheet Form 6A

Department /Contractor	Date of Observation
Manager/Site Foreman	Time of Observation (24 hr)

Type of Inspection:	Specific Location (road, block and parcel, building)	☐ - Plant
☐ - Observation		☐ - Administration
☐ - Routine		☐ - Sub-station
☐ - Other _____		☐ - Transmission & Distribution

Site Information

Location	Vehicles in use? Y/N	# of employees on site	Name of Employees engaged in activities (if more; attach page)
Job Type	If yes, # of vehicles in operation		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____
Manager/Site Foreman	Vehicle ID #(s)		

Items Presented

Person(s) Responsible for Corrective actions

Job Plan/Tailboard Document Hazards/Barriers identified: ☐ Electrical ☐ Mechanical ☐ Chemical	☐ Yes	☐ No	☐ N/A	Notes Written and available for view Y/N
Vehicle Set-up ☐ Suitable Location ☐ Braking Device ☐ Chocks/Outrigger pads ☐ Public Safety ☐ Grounding	☐ Yes	☐ No	☐ N/A	Notes Vehicle in good working order Y/N
Traffic Control ☐ Cones ☐ Signs ☐ Flashers/Hazard lights	☐ Yes	☐ No	☐ N/A	Notes
Work Protection ☐ Visible Tags ☐ Visible clearance Sheet/ Switching Order ☐ Form ☐ Area Grounding/Bonding ☐ Visible Permit to Work	☐ Yes	☐ No	☐ N/A	Notes
Work Method and Procedures Visible ☐ Cover-Up ☐ Rigging ☐ Limits of Approach ☐ Appropriate Tools /Equipment available	☐ Yes	☐ No	☐ N/A	Notes

OBSERVATIONS

Notes & Illustrations	**General Requirements**
	Fire Extinguishers ☐ Sanitary Facilities ☐ Lunch Area ☐ Drinking Water ☐ First Aid Kits ☐ Emergency lights ☐ Eye Wash Station · Oxygen Pac ·

Compliance	Item & Hazard
Housekeeping ☐ Floor /clear from obstruction/ slip hazards ☐ Exits/Signs Marked /Illuminated ☐ Entrance Signs Marked /Illuminated ☐ Storage clear from obstruction	

Sample of **Worksite Observation Assessment Sheet Form 6A** (back)

Compliance	Item & Hazard
Safety Management ☐ Fire (available) ☐ Safety (available) ☐ Emergency (available) ☐ Energy Control Procedure (available) ☐ Environmental (available) ☐ Accident/Incident Reporting forms (available)	
Personnel Protective Equipment ☐ Gloves ☐ Fall Arrest ☐ Safety footwear ☐ Vest/coveralls ☐ Hard-hats ☐ Eye protection ☐ Hearing protection ☐ Breathing apparatus	
Signs ☐ Stored Chemicals (MSDS identified) ☐ Warning signs visible ☐ PPE Signs visible (head, eyes, hearing) ☐ Noise warning signs visible ☐ Smoking signs visible ☐ High voltage sign displayed correctly ☐ Operational signs in place (stop, etc) ☐ Flammable material signs visible	
Storage Facilities ☐ Aisles ☐ Racks (poles/ transformers) ☐ Compressed gas (secured) ☐ Chemicals (secured, area ventilated, PPE available)	
Portable Tools & Equipment · Welding equipment (capped, tagged and secured) · Electrical cords (defective, cut/frayed, trip hazards) · HV /Control panels (secured and identified) · Material Handling (chains & slings, visual defects) · Forklift (tires w/ thread, lights, horns, seatbelts) · Ladders (tagged out of service, visual inspection)	
Tools · All machinery guards in place · Emergency button(s) in operation · Hydraulic/pneumatic hose checked for leakage · Defective equipment marked & tagged	
Testing & Monitoring (Record Keeping) · Lifting equipment tests available (attach copy) · Pressure vessels (good working order) · Crane inspections & equipment (documents) · HV tools (hot sticks, gloves, aerial devices) · Engine alarm system operational (gauges)	
Building Equipment (FACMAN & Production) · Handrails, walkways (visual inspection) · Waste disposal (container available) · Plant compound free of debris & trip hazards · General signs (traffic control & parking visible) · Bulk storage (hazard & leak free, seams checked) · Fire hoses and portable hydrant (visual)	

Inspection completed by	**Attached documentation**
Sign _____ Print Name _____ Date of Completion _____ Time of Completion (24hr) _____	☐ Photos ☐ Hazard Assessment Form ☐ Work Method Form ☐ Employee Listing ☐ Other(s) _____