

PSEG LONG ISLAND LLC
On Behalf of and as Agent for
the LONG ISLAND POWER AUTHORITY f/k/a LONG ISLAND
LIGHTING COMPANY d/b/a LONG ISLAND POWER AUTHORITY

Commercial Avenue Equipment Project
Case 25-T-0243

Terminal
Environmental Management and Construction Plan

APPENDIX C
Emergency Response Plan

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ATTACHMENT C-1 – EXAMPLE HEALTH AND SAFETY PLAN

1 OVERVIEW

This “Emergency Response Plan” (ERP) was developed to support activities associated with the construction of the Commercial Avenue Terminal (Terminal), for the Commercial Avenue Equipment Project (Project). The ERP has been developed in accordance with PSEG Long Island safety standards and with federal and state requirements for construction activities.

PSEG Long Island (the Certificate Holder), its employees and contractors, are committed to safety and the well-being of all who endeavor to work on the Project or any project within its service territory. Every employee and contractor has the right and obligation to stop work if an unsafe situation is occurring. The Project is committed to proactively addressing safety daily before work begins and learning from the day's activities when the work is completed.

This Appendix addresses Amended Certificate Condition 2a of Case 25-T-0243, which states:

- 2a. The Certificate Holder shall regard DPS Staff representatives (authorized pursuant to PSL §8) as the Commission’s designated representatives in the field. In the event of any emergency resulting from specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this proceeding, such DPS Staff representatives may issue a stop-work order for that location or activity.

In addition, if an OSHA Reportable accident occurs in connection with work on the Project, the Certificate Holder shall report any such accident to DPS Staff as soon as possible. A copy of the accident report, if any, shall be provided to DPS upon completion.

This ERP focuses on life safety and emergency issues occurring during the course of the work. Preparation for, and other emergency issues such as environmental contamination, are not addressed within the appendix.

2 PERSONNEL

PSEG Long Island and the contractors performing the work for the Project will establish competent safety personnel who will be on site daily and responsible for establishing and maintaining safety procedures and protocols. The competent safety personnel will be identified to the DPS Field Inspector and will provide regular reporting on daily activities, hours worked, and any perceived incidents or near misses that could benefit workers in safety training.

All personnel on the Project have the right and obligation to stop work, without retribution, if unsafe work practices or environmental damage may occur in their presence.

3 PRE-PLANNING

To maintain a safe worksite, a “Health and Safety Plan” (HASP) will be created for each contractor and each planned and permitted activity prior to its commencement. Each HASP contains activity-specific information and associated safety concerns, including at least: stop-work authority; biological and environmental hazards; and vehicle traffic hazards.

HASPs identify issues to monitor and how to respond to incidents in the field. Each HASP includes the following information:

- a. The nearest locations of emergency service providers (fire, police and ambulance); hospitals with emergency trauma care; occupational health facilities; and travel paths and times to each, including turn-by-turn descriptions to emergency rooms.
- b. Names and contact information for Project safety personnel, and their operating activities within the construction zone.
- c. Safety preparation requirements for each worksite, including but not limited to:
 - i. The location of an AED;
 - ii. The number of people required to be versed and certified in CPR and the use of AEDs;
 - iii. The number of people required to be versed and certified in first aid;
 - iv. The location of the first aid equipment; and
 - v. The location of fire suppression equipment;
- d. Incident reporting procedures, including those described within the Certificate Conditions, which may lead to a Stop Work Order, or rise to the level of an OSHA-level incident.

Each person working on the jobsite must sign and acknowledge the HASP daily at the job site pre-task tailboard meeting (i.e., “tailboard”). Each tailboard highlights activities with increased safety risks (e.g., crane operations, splice vault activities) and all activities planned for the day. Tailboards identify who will perform each task to verify competency.

An example HASP is included as Attachment C-1.

4 EMERGENCY RESPONSE

4.1 Life Safety

In the event of a life-threatening emergency or incident (fire, injury, or other), work shall be stopped at the location, and 911 dialed with information regarding the incident location, the incident issues, and how personnel can assist on site until emergency responders arrive.

Appropriate personnel shall administer lifesaving assistance and first aid until assistance arrives. Upon clearing the incident, those on site will secure the location to allow the appropriate authorities to investigate.

The Certificate Holder shall cooperate and coordinate with federal and state agencies to investigate the incident and provide the necessary reporting as described in the Project's Certificate Conditions.

4.2 Utility Emergency (Dig In)

In the event of an unintended impact to underground utilities (Dig Ins), the Certificate Holder and its contractors will comply with emergency requirements in NYS Code Rule 753-3.14.

Per the code, in the case of a Dig In, the contractor will immediately stop work, evacuate the area, contact 911, and await emergency services.

A report of any Dig In will be provided to the DPS in accordance with the Certificate Conditions, including the resolution of the utility impact.

Attachment C-1 – Example Health and Safety Plan



General Safety & Health Plan



PSEG Long Island Newbridge Bypass Project

PSEG LI Project Number: MA-00008317

BMcD Project Number: 178864

March 20, 2026



**Safety and Health Plan
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**Burns & McDonnell EGS, P.C.
SAFETY AND HEALTH WORK PLAN****1.0 Scope of Work**

The following updated scope outlines the detailed sequence of work carried out by Burns & McDonnell ECG, P.C. (B&M)'s and its subcontractor, Paulus, Sokolowski & Sartor (PS&S), in support of the PSEG Long Island Newbridge Bypass project (the "Project"). The Project includes installation of new underground transmission cable in three distinct locations at, and extending off of, existing transmission circuits 138-467 and 138-567, located at the Uniondale Hub, located in Garden City, Nassau County, the Newbridge Road Substation, located in Levittown, Nassau County and the Ruland Road Property, located in Melville, Suffolk County. An overview of the Project is depicted in Figure A.

This HASP addresses general hazards that may be encountered for the overall Project; however, given the geographical extents of the Project, this HASP includes three separate Addendums for distinct Project segments, as follows:

- Addendum 1** Uniondale Hub (See Figure B)
- Addendum 2** Newbridge Property (See Figure C)
- Addendum 3** Ruland Road Property (See Figure D)

Each addendum shall include site-specific tasks, hazards/mitigations, and hospital location information.

This work will consist of walking the site to visually look for:

- Vegetation, wildlife habitats and land use conditions
- Presence of Wetlands
- Rare, threatened and invasive species
- Archaeological and soil surveys, including digging test holes every 50 feet.
- Demobilization

Project scope activities covered by this HASP include the following:

1. **Pre-Field Planning and Mobilization:** PS&S will initiate the project by conducting pre-field planning sessions, including safety briefings and review of the Health and Safety Plan (HASP), with emphasis on site-specific hazards. Team members will ensure they have proper personal protective equipment (PPE), are aware of minimum approach distances (MAD), mapping devices, and mobile data collection tools. Coordination will include confirmation of required training and validation of entry points based on Figure A.
2. **Access and Site Layout:** Field crews will access the Site Location on foot using established entry points from nearby roads or public rights-of-way. Work limits will be established using cones and stakes if necessary. Where appropriate, spotters will be used near roadways. All parking shall be arranged to avoid obstructing fire lanes, driveways, or emergency access points. Crews should mark vehicles with cones or flags when staging near traffic zones or ROW intersections.
3. **Ecological Field Surveys:** PS&S environmental personnel will conduct visual ecological assessments along the utility corridor, recording habitat features, vegetation types, and land use conditions. This includes photographic documentation, GPS-based mapping, and on-site data entry using tablets. Observations will focus on the defined buffer zones surrounding the site location.

4. Wetland and Waterbody Evaluation: Any surface water features identified within the site location will be assessed using handheld water quality meters and visual assessment protocols. The crew will evaluate physical indicators of wetland presence, document potential ecological impacts, and ensure safe practices when navigating around waterlogged terrain.
5. Rare, Threatened, and Invasive Species Identification: Visual and auditory techniques, supported by mobile species identification apps and reference guides, will be used to locate rare, threatened, or endangered (RTE) species. Invasive species will also be recorded using geotagged photos and field notes. Special attention will be given to minimizing disruption in known or suspected sensitive habitats.
6. Archaeological and Soil Surveys: Cultural resource specialists will perform Phase 1A and 1B archaeological surveys, including surface walkovers and limited subsurface exploration using hand tools (e.g., shovels, augers, trowels). All work will be conducted within the site location with minimum ground disturbance. Approximately one shovel test per 50 feet. Prior to digging, an 811 mark-out is required along with a PSEG Long Island mark-out. The test area will be approximately 2 feet in diameter and 2 feet deep. It will be hand-dug by a shovel with screenings performed to check for artifacts or specimens. Soil characterization activities will be coordinated to avoid sensitive or utility-laden zones.
7. Vegetation and Habitat Analysis: Within forested and vegetated sections of the work area, tree and shrub inventory will be completed using diameter tapes to measure DBH (Diameter at Breast Height), along with health assessments and condition scoring. Habitat characteristics will be logged through checklists and photographic records, informing future restoration planning efforts.
8. Navigation and Communication in Remote Areas: Teams will use GPS devices, printed maps, and two-way radios to ensure safe navigation across wooded or overgrown terrain. Predefined check-in intervals and buddy protocols will be used in areas with limited cellular connectivity. Field teams will maintain situational awareness to prevent disorientation and respond to unexpected hazards.
9. Demobilization and Site Cleanup: At the conclusion of each field day, crews will pack up equipment and conduct a final sweep of the work zone to ensure all materials and trash are removed. Heavy or awkward items will be lifted using proper ergonomic techniques or with two-person teams. Final inspections will verify whether the area is restored to pre-existing conditions or left in accordance with the best environmental practices.

All activities will be conducted without the use of heavy machinery. Work will be performed using only manual equipment and mobile devices and will occur entirely outdoors within the Site Location. Special care will be taken to avoid ecological disruption, keep public and crew safety, and comply with all PSEG Long Island, Burns & McDonnell, and regulatory requirements.

No substation access is required for this scope of work.

Figures

Figure A – Project Overview

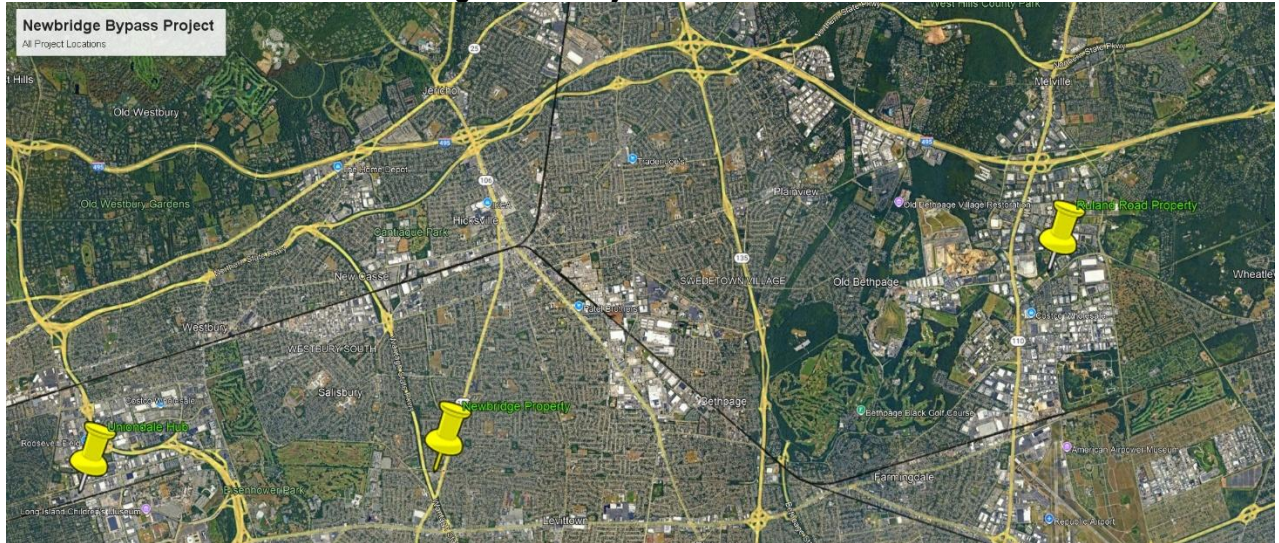


Figure B – Uniondale Hub



Figure C – Newbridge Property



Figure D - Ruland Road Property



2.0 Project Personnel

The following technical project personnel are assigned to this Project. Emergency contact personnel assigned to this project are provided in Section 4.1.

Contractor:

Burns & McDonnell

Project Manager:
LeLand Rowse
816 652 2672 O
913 526 7698 M
lrowse@burnsmcd.com

Ast. Project Manager:
Ana Garcia
816 708 0425 O
316 558 6102 M
asgarcia@burnsmcd.com

Corp. Safety Specialist:
Megan Barcus
816 447 9953 O
913 428 6458 M
mlbarcus@burnsmcd.com

Corp. Safety Specialist:
Ella Olen
816 349 6659 O
763 772 2522 M
ejolen@burnsmcd.com

Subcontractor:

Paulus, Sokolowski and Sartor Engineering, P.C. (PS&S)
ISN#: 400-173755

General Foreman: (Competent Person)
Andrew Clark, Lead Project Scientist
732-584-0454 (o)
908-240-3117 (c)
aclark@psands.com

Project Manager:
Kristin Baltadonis
732 584 0312 (o)
910 297 3007 (c)
kbaltadonis@psands.com

2.1 Roles and Responsibilities:

Burns & McDonnell, as the General Contractor (GC), will be responsible for the safety of its employees and subcontractor.

Burns & McDonnell will verify that all employees on site have the skills and qualifications necessary to perform their job safely and effectively, and in accordance with all regulatory requirements.

The following information defines the obligations and requirements of key personnel for Burns & McDonnell and for subcontractor personnel who play a vital role in the Project Safety & Health Program. Key project personnel are listed below.

The Burns & McDonnell Project Manager will have the responsibility for monitoring and enforcing the Contractor's and PSEG Long Island's safety requirements. The Project Manager has full authority to immediately correct any safety hazard as they deem appropriate. The Project Manager shall:

- Verify subcontractor has designated Competent Persons as applicable for the scope of work.
- Work with the subcontractor to identify potential safety hazards.
- Where hazards are observed, take prompt corrective action;
- Have the authority to order a work stoppage in the event of a serious safety issue.

Subcontractor name: Paulus, Sokolowski & Sartor (PS&S)

- Be in charge of the day-to-day details of this project-specific safety plan;
- Confirm that work is performed in accordance with the company work procedures, the PSEG Long Island requirements and the Safety & Health Plan;
- Walk the job site at the end of each day to confirm a safe environment;
- Where hazards are observed, take prompt corrective action;
- Have the authority to order a work stoppage in the event of a serious safety issue.

The Competent Person shall be the General Foreman or any other employee designated by the Subcontractor. The Competent Person is defined by OSHA as an individual who can identify hazards and has the authority to take prompt corrective action. Competent Person supervision is necessary for activities such as locating and Mark-out type work; i.e., 811 qualified.

Employees and Subcontractor:

- Burns & McDonnell and subcontractor (PS&S) employees are responsible for following all safety requirements outlined in this plan.
- Each employee and subcontractor is responsible for reporting to their supervisor any incidents, including near-miss incidents.
- Each employee and subcontractor has the authority to call a safety stop, refuse to work or request that others stop work if that employee believes the conditions to be unsafe.
- All employees are trained in the proper use of handheld fire extinguishers.

2.2 Qualifications

All contractors will have the skills, qualifications and equipment necessary to perform their jobs safely and effectively and protect the environment and community.

Subcontractor employees shall be trained by their respective employer. All safety-related subcontractor training shall be documented on Safety Form C-9, "Certification of Training," and submitted to Burns & McDonnell prior to the commencement of any work activities.

- *Refer to Appendix D, Safety Form C-9, "Certification of Training"*

There shall be at least two employees trained in CPR, AED and First Aid on-site during working hours.

All personnel performing excavation work are New York State 811 Trained.

Training Requirements

Project personnel shall be required to attend the Burns & McDonnell Project Safety & Health Orientation prior to performing any work activity(s). The trainee shall complete Safety Form C-8, "Project Orientation Training," to document orientation attendance and acknowledge understanding of the expectations set forth in the Project Safety & Health Program.

- Refer to Appendix E, Safety Form C-8, "Project Orientation Training"

Project Safety & Health Orientations shall be conducted by Burns & McDonnell. The Project Safety & Health Orientation may not be restricted to the items listed on Safety Form C-8, "Project Orientation Training," but will, at a minimum, include all applicable items listed on the form.

Subcontractor employees shall be trained by their respective employer. All safety-related subcontractor training shall be documented on Safety Form C-9, "Certification of Training," and submitted to Burns & McDonnell.

- Refer to Appendix D, Safety Form C-9, "Certification of Training"

3.0 Hazard Identification and Risk Assessment

Minimum Personal Protective Equipment (PPE)

The following minimum personal protective equipment is required 100% of the time on the Project:

- Hard Hat Class E/G ANSI Z89.1 (Latest Edition)
- Work Boots ASTM F2412/F2413 (Latest Edition) compliant Safety toe work Boot, minimum 6" high, having an impact rating of 75, a compression rating of 75 and an EH rating when exposed to electrical hazards.
- Safety Glasses w/ Side Shields ANSI Z87.1 compliant (Latest Edition)
- Full-length work pants, coveralls, jeans, etc., Work shirt with a minimum 4" sleeve length
- Hand protection appropriate for the task and in accordance with Hand Protection Reference Guide
 - Refer to Appendix H
- Class 3 Hi-visibility clothing or class 3 vest
- Hearing Protection for noise exposure levels above 85 dBA TWA.

PSEG Long Island requires Flame Resistant Clothing, long-sleeved shirt and pants whenever employees are exposed to electric arc or flash. Minimum 8 cal/cm², with 100% cotton undergarment.

Additionally, long-sleeve shirts are required when working in areas where poisonous plants or insects are evident and in all areas or under any condition where a high degree of exposure to lacerations, abrasions, scratches, etc. may exist. Outer garments, such as jackets and traffic vests, must also be flame-resistant.

All personnel should maintain the Minimum Approach Distance (MAD) table below for all tasks performed under this HASP.

Minimum Approach Distances (MAD) Table

Operation Near High-Voltage Power Lines	
Normal Voltage	Minimum Clearance
to 50 kV	10 feet
Over 50 to 200 kV	15 feet
Over 200 to 350 kV	20 feet
Over 350 to 500 kV	25 feet
Over 500 to 750 kV	35 feet
Over 750 to 1000 kV	45 feet

ASME B30.5-2004

Operation In Transit With No Load And Boom Lowered	
Normal Voltage	Minimum Clearance
to 0.75 kV	4 feet
Over 0.75 to 50 kV	6 feet
Over 50 to 345 kV	10 feet
Over 345 to 750 kV	16 feet
Over 750 to 1000 kV	20 feet

ASME B30.5-2004

3.1 Initial Assessment

The following table identifies major trade/task areas, the primary hazards, and proposed mitigation steps for the Project. Site-specific hazards and mitigation for distinct project segments and locations are included within the respective Addenda. Mitigation steps shall be revised as necessary to reflect Project changes.

Project-Specific Hazard Identification and Risk Assessment Worksheets

Any significant changes to the scope of work, work practices and/or site conditions shall be evaluated for new hazards and the associated risks. This shall be addressed in an additional job briefing. As necessary, new controls will be identified and documented. This safety plan will be amended for site-specific, significant changes. Any changes to the job will be reviewed and documented in a job brief. Document any changes or any additional tasks, hazards and mitigations in the table below.

Subcontractor shall review the General Health and Safety Plan (HASP) prior to commencing work, followed by a review of all applicable site-specific HASPs to identify and evaluate hazards associated with their specific work locations. This process shall be repeated for each site-specific location identified in the HASP [addendum]. Subcontractor is responsible for verifying that all tasks, hazards, and applicable controls are understood and addressed prior to performing work at each location.

Company: Paulus, Sokolowski and Sartor Engineering, P.C. (PS&S),

Prepared by: Paulus, Sokolowski and Sartor Engineering, P.C. (PS&S)

Primary Task: Environmental analysis and mapping of ecological data, as well as field reconnaissance and inventory of environmental conditions/habitat values within the electric transmission corridor (see attached route map assumed for HASP) within road right of way ("ROW") in Levittown, New York.

TASK	HAZARD	MITIGATION
1. Pre-Field Planning and Mobilization:	A. Heat Stroke B. Heat Exhaustion	a. Be aware of the signs and symptoms of heat stress from

<p>Work in Extreme Heat</p>	<p>C. Heat Cramps</p>	<p>exertion or hot environments. Wear temperature-appropriate, breathable clothing and PPE.</p> <ul style="list-style-type: none"> b. Establish a cool place for regular breaks in a shaded or air-conditioned area. c. Drink plenty of liquids and always carry extra water to job sites. d. Monitor your physical condition and that of your coworkers for signs or symptoms of heat illnesses. e. Schedule heavy work during the coolest parts of the day.
<p>2. Pre-Field Planning and Mobilization: Work under Sun Exposure</p>	<ul style="list-style-type: none"> A. Sunburn B. Skin Cancer 	<ul style="list-style-type: none"> a. Avoid prolonged exposure to the sun when possible. Wear sunscreen with a minimum of SPF 15. b. Sunscreen performance is affected by wind, humidity, sweat, and proper application. Use extra care to cover sensitive areas such as ears, scalp, lips, and neck. Reapply as needed to continue protection. c. Optional clothing options can be used to protect from UV exposure, such as wide-brimmed hats and SPF clothing.
<p>3. Access and Site Layout</p>	<p>A. Pedestrian & Vehicular traffic Applicable for Addendum 2</p>	<ul style="list-style-type: none"> a. Use barricades to protect the work area from pedestrian traffic. b. Be aware of building access and walkways that may be nearby; avoid these areas if possible. c. Coordinate and use barricades to protect the work area from vehicular traffic when in or around travel lanes. d. Stage equipment so that it does not impede traffic or block fire routes. e. Use cones as needed to stage the area is visible and secure. f. Crews should mark vehicles with cones and hazard lights when parking off roadways. g. If working on a multi-lane roadway, please confirm you're parking on the side of the road where work is happening. Do

		<p>not cross over multiple lanes of traffic on foot.</p> <ul style="list-style-type: none"> h. Utilize a spotter when backing vehicles. i. Establish a high-visibility buffer zone between work area and active roadways using cones, signage, and barricades. j. If on the roadway, employ flag people as necessary. k. Use 24 inch Stop/Slow Paddles l. Maintain a line of sight between the flaggers m. Use two-way radios if line of sight cannot be maintained between flaggers. n. Wear Class 3 Hi-visibility clothing or class 3 vest/apparel at all times near traffic. o. Coordinate with municipal or traffic control authorities when working near active lanes. p. Position spotters at blind intersections or near equipment backing zones to manage vehicle interaction risks. q. Limit site walk and layout activities to daylight hours whenever feasible to improve visibility. r. Utilize warning flags or portable flashing beacons when working within 10 feet of vehicular lanes.
	<p>B. Biological Hazards (Poisonous Plants, Venomous Insects, Bees and Wasps, Ticks, Mosquitos, Wildlife)</p>	<ul style="list-style-type: none"> a. Provide a laminated visual guide of hazardous plants to staff in the field. b. Wear long sleeves, long pants, boots, and gloves whenever possible to reduce exposed skin. c. Bring wipes or a handwashing station to the worksite to cleanse after contact with irritating plants. d. Use caution around utility equipment and covers where spiders and insects may be present. e. Look before reaching into darkened areas or into foliage to avoid disturbing snakes or other wildlife. f. If ticks or other dangerous animals or plants are present in

		<p>the site, avoid operations in those habitat areas until actions can be taken or controls put in place to eliminate or reduce the risk to an acceptable level.</p> <ul style="list-style-type: none">• If controls aren't feasible, make certain that preventative equipment such as repellants, protective clothing, and tick removal kits are on-site.• To prevent tick and mosquito-borne diseases, use repellents containing 20–50% DEET on exposed skin and clothing.• Spray only outside of clothing with permethrin or permanone, and spray skin with only DEET• Tuck pant legs into boots and frequently check yourself for Ticks before and after work tasks.• Use the buddy system. Have your field partner check your back; the backs of your legs, arms and neck; and your hairline. Checks shall also be done:<ul style="list-style-type: none">○ Before entering the field vehicle after field activities are completed○ At the end of the day when field activities are complete○ When field day is complete, workers should shower as soon as practical to wash off repellent and any unattached ticks. Full body inspection for ticks should be performed focusing on hairline and places skin folds or creases or pinch points such as pant
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		<p>waistlines, bra straps, etc.</p> <ul style="list-style-type: none"> • Pick off and dispose of ticks are on the worker that are not yet embedded. If a large number of seed ticks (very small) are present, use of tape or lint rollers are effective removal tools. • Take the following actions if a tick has already bitten and is embedded in this skin: <ul style="list-style-type: none"> ○ Disinfect the area. ○ Remove ticks quickly using a Tick Removal Kit. ○ Place tick in Zip-Lock Bag for possible future analysis. ○ Thoroughly disinfect the bite and wash hands with soap and water. ○ Monitor site for 30 days for appearance of a rash or early tick-borne illness symptoms.
	<p>C. Topographical Hazards in uneven terrain (Slips, Trips, Falls)</p>	<ul style="list-style-type: none"> a. Confirm two staff members are in the field at all times. b. Keep work area free of excess material and debris. c. Remove trip hazards by keeping materials/objects organized and out of walkways. d. Install rough work surface covers where possible. e. Stay aware of footing and do not run. f. Apply ice melt or sand on icy surfaces. g. Provide work boots with rubber tread for a better grip to the ground. h. In areas of overgrowth above 2-3' confirm a clear path is cut and prepared, prior to performing work.

	D. Potholes/sinkholes	a. Be aware of uneven terrain while walking.
	E. Manual Handling F. Improper Ergonomics	a. Use proper stance and lifting techniques to avoid injury. b. When handling heavy or bulky items, use a team lifting approach to distribute weight evenly. c. Employ a two-person team for objects exceeding the NIOSH recommended weight limit of 50 lbs. d. Utilize carts, dollies, hoists, or lifting straps to reduce strain when moving equipment. e. Take short breaks to stretch and reduce fatigue from prolonged lifting or carrying.
4. Ecological Field Surveys	A. Excavation hand-digging tools	a. All hand-digging tools must have insulated handles. Digging bars shall not be used. b. 811 mark out required prior to digging
	B. Subsurface contaminants	a. If there is an unusual odor or color from the subsurface materials in the open excavation, stop work immediately and contact the manager before proceeding.
	C. Slips, trips, falls	a. Keep work area clear of staged tools and debris to confirm a secure footing.
5. Wetland and Waterbody Evaluation	A. Biological Hazards (Poisonous Plants, Venomous Insects, Bees and Wasps, Ticks, Mosquitos, Wildlife)	a. Provide a laminated visual guide of hazardous plants to staff in the field. b. Wear long sleeves, long pants, boots, and gloves whenever possible to reduce exposed skin. c. Bring wipes or a handwashing station to the worksite to cleanse after contact with irritating plants. d. Use caution around utility equipment and covers where spiders and insects may be present. e. Look before reaching into darkened areas or into foliage to avoid disturbing snakes or other wildlife.

		<p>f. If ticks or other dangerous animals or plants are present in the site, avoid operations in those habitat areas until actions can be taken or controls put in place to eliminate or reduce the risk to an acceptable level.</p> <ul style="list-style-type: none">• If controls aren't feasible, make certain that preventative equipment such as repellants, protective clothing, and tick removal kits are on-site.• To prevent tick and mosquito-borne diseases, use repellents containing 20–50% DEET on exposed skin and clothing.• Spray only outside of clothing with permethrin or permethrin, and spray skin with only DEET• Tuck pant legs into boots and frequently check yourself for Ticks before and after work tasks.• Use the buddy system. Have your field partner check your back; the backs of your legs, arms and neck; and your hairline. Checks shall also be done:<ul style="list-style-type: none">○ Before entering the field vehicle after field activities are completed○ At the end of the day when field activities are complete○ When field day is complete, workers should shower as soon as practical to wash off repellent and any unattached ticks. Full body inspection for ticks should be performed focusing on hairline and places skin folds or creases or pinch
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		<p>points such as pant waistlines, bra straps, etc.</p> <ul style="list-style-type: none"> • Pick off and dispose of ticks are on the worker that are not yet embedded. If a large number of seed ticks (very small) are present, use of tape or lint rollers are effective removal tools. • Take the following actions if a tick has already bitten and is embedded in this skin: <ul style="list-style-type: none"> ○ Disinfect the area. ○ Remove ticks quickly using a Tick Removal Kit. ○ Place tick in Zip-Lock Bag for possible future analysis. ○ Thoroughly disinfect the bite and wash hands with soap and water. <p>b. Monitor site for 30 days for appearance of a rash or early tick-borne illness symptoms.</p>
	<p>B. Topographical Hazards in uneven terrain (Slips, Trips, Falls)</p>	<p>a. Confirm two staff members are in the field at all times.</p> <p>b. Keep work area free of excess material and debris.</p> <p>c. Remove trip hazards by keeping materials/objects organized and out of walkways.</p> <p>d. Install rough work surface covers where possible.</p> <p>e. Stay aware of footing and do not run.</p> <p>f. Apply ice melt or sand on icy surfaces.</p> <p>g. Provide work boots with rubber tread for a better grip to the ground.</p> <p>h. In areas of overgrowth above 2-3' confirm a clear path is cut and prepared, prior to performing work.</p>

	C. Slips, trips, falls	a. Keep work area clear of staged tools and debris to confirm secure footing.
	D. Cuts or Abrasions	<p>a. Wear proper PPE as required in section 4.0 (Hard Hat, Work Boots, Safety Glasses w/ side shields, full-length work pants, hand protection/gloves)</p> <p>b. Carry a first aid kit for minor cuts.</p>
6. Rare, Threatened, and Invasive Species Identification	A. Biological Hazards (Poisonous Plants, Venomous Insects, Bees and Wasps, Ticks, Mosquitos, Wildlife)	<p>a. Provide a laminated visual guide of hazardous plants to staff in the field.</p> <p>b. Wear long sleeves, long pants, boots, and gloves whenever possible to reduce exposed skin.</p> <p>c. Bring wipes or a handwashing station to the worksite to cleanse after contact with irritating plants.</p> <p>d. Use caution around utility equipment and covers where spiders and insects may be present.</p> <p>e. Look before reaching into darkened areas or into foliage to avoid disturbing snakes or other wildlife.</p> <p>f. If ticks or other dangerous animals or plants are present in the site, avoid operations in those habitat areas until actions can be taken or controls put in place to eliminate or reduce the risk to an acceptable level.</p> <ul style="list-style-type: none"> • If controls aren't feasible, make certain that preventative equipment such as repellants, protective clothing, and tick removal kits are on-site. • To prevent tick and mosquito-borne diseases, use repellents containing 20–50% DEET on exposed skin and clothing. • Spray only outside of clothing with permethrin or permanone, and spray skin with only DEET • Tuck pant legs into boots and frequently check

		<p>yourself for Ticks before and after work tasks.</p> <ul style="list-style-type: none">• Use the buddy system. Have your field partner check your back; the backs of your legs, arms and neck; and your hairline. Checks shall also be done:<ul style="list-style-type: none">○ Before entering the field vehicle after field activities are completed○ At the end of the day when field activities are complete○ When field day is complete, workers should shower as soon as practical to wash off repellent and any unattached ticks. Full body inspection for ticks should be performed focusing on hairline and places skin folds or creases or pinch points such as pant waistlines, bra straps, etc.• Pick off and dispose of ticks are on the worker that are not yet embedded. If a large number of seed ticks (very small) are present, use of tape or lint rollers are effective removal tools.• Take the following actions if a tick has already bitten and is embedded in this skin:<ul style="list-style-type: none">○ Disinfect the area.○ Remove ticks quickly using a Tick Removal Kit.○ Place tick in Zip-Lock Bag for possible future analysis.
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		<ul style="list-style-type: none"> ○ Thoroughly disinfect the bite and wash hands with soap and water. ● Monitor site for 30 days for appearance of a rash or early tick-borne illness symptoms.
	B. Topographical Hazards in uneven terrain (Slips, Trips, Falls)	<ul style="list-style-type: none"> a. Confirm two staff members are in the field at all times. b. Keep work area free of excess material and debris. c. Remove trip hazards by keeping materials/objects organized and out of walkways. d. Install rough work surface covers where possible. e. Stay aware of footing and do not run. f. Apply ice melt or sand on icy surfaces. g. Provide work boots with rubber tread for a better grip to the ground. h. In areas of overgrowth above 2-3' confirm a clear path is cut and prepared, prior to performing work.
	C. Slips, trips, falls	<ul style="list-style-type: none"> a. Keep work area clear of staged tools and debris to confirm secure footing.
	D. Cuts or Abrasions	<ul style="list-style-type: none"> a. Wear proper PPE as required in section 4.0 (Hard Hat, Work Boots, Safety Glasses w/ side shields, full-length work pants, hand protection/gloves) b. Carry a first aid kit for minor cuts.
7. Archaeological and Soil Surveys	A. Excavation hand-digging tools	<ul style="list-style-type: none"> a. All hand-digging tools must have insulated handles. Digging bars shall have chisel points. Pointed digging bars are prohibited. b. 811 mark out required prior to digging
	B. Subsurface contaminants	<ul style="list-style-type: none"> a. If there is an unusual odor or color from the subsurface materials in the open excavation, stop work immediately and contact the manager before proceeding.

	C. Slips, trips, falls	a. Keep work area clear of staged tools and debris to confirm secure footing.
8. Vegetation and Habitat Analysis	A. Cuts or Abrasions	a. Wear proper PPE as required in section 4.0 (Hard Hat, Work Boots, Safety Glasses w/ side shields, full-length work pants, hand protection/gloves) a. Carry a first aid kit for minor cuts.
9. Demobilization and Site Cleanup	A. Manual Handling B. Heavy Lifting C. Improper Ergonomics	a. Use proper lifting when repacking all tools and equipment to the trucks. b. Employ a two-person team for objects exceeding the NIOSH recommended weight limit of 50 lbs. c. Utilize carts, dollies, hoists, or lifting straps to reduce strain when moving equipment. d. Take short breaks to stretch and reduce fatigue from prolonged lifting or carrying.
	D. Slips, Trips, Falls	a. Sweep any debris that has been created during operations.

3.2 Project-Specific Hazard Identification, Risk Assessment and Controls

The following lists other common hazards anticipated for this Project.

- Biological plants, insects, etc.
- Electrical; Describe: Overhead energized circuits. Maintain 10'-0" minimum clearance.
- Heat Stress; summer heat/humidity – follow heat stress plan
- Cold Stress; cold winter temperatures/snow/ice – follow cold stress plan
- Moving heavy items, ergonomics.
- Roadway/traffic hazards: Wear high-visibility vest/clothing if working near traffic
- Weather Hazards: Follow severe weather procedures.

3.3 Traffic and High-Visibility

Traffic Safety

The following items address safety procedures for employees working on or near busy highways or roadways. Employees should adhere to the following guidelines as applicable:

- Park on the side of the highway or roadway where work will occur.
- Never walk across the highway as part of daily work activities.
- If parking near work activities is not available, then supplies and equipment are to be unloaded/loaded on the side of the highway where work will occur. The vehicle will then be

parked in the designated parking area.

- Work near roadways will follow the work-zone safety procedures outlined in the most recent edition of the Manual on Uniform Traffic Control Devices (MUTCD) for traffic safety in addition to applicable OSHA regulations.
- A Traffic Control Plan must be developed when work activities may reasonably be anticipated to impact traffic patterns. DOT requirements must be followed throughout the entire route. In most instances, this Traffic Control Plan may need to be submitted to local and/or State transportation authorities for pre-approval. Traffic control plans within the DOT ROW must be submitted and approved by DOT prior to work.
- BMcD requires the subcontractor to provide traffic control personnel and signage where needed.

Severe Weather Hazards

Lightning

Caution is necessary in the field with regard to the hazards of lightning. Raised rigs and derricks may be particularly susceptible. The following precautions should be taken:

- Be aware of the weather to foresee and watch for the buildup of possible thunderstorms.
- Be prepared to demobilize and take cover before thunderstorms are too close.

The subcontractors shall be responsible for monitoring the potential of hazardous weather conditions.

When lightning occurs, the Subcontractors shall convey the appropriate response actions to confirm that they can react quickly and safely.

Outdoors

While outdoors, project personnel shall remain aware of the weather to foresee possible thunderstorms.

Personnel shall be prepared to demobilize and take shelter before thunderstorms are too close.

Note: A safe shelter is a substantial building with electricity or plumbing, or an enclosed, metal-topped vehicle with windows up.

Project personnel working outdoors during thunderstorms, or when lightning is possible, shall observe the following precautions:

- Stay off and away from anything tall or high, including rooftops, scaffolding, utility poles, and ladders.
- Stay off and away from large equipment such as bulldozers, cranes, backhoes, track loaders, and tractors.
- Do not touch materials or surfaces that can conduct electricity, including metal scaffolding, metal equipment, utility lines, water, water pipes and plumbing.

Individuals caught outside with no safe shelter anywhere nearby shall take the following actions to reduce their risk:

- Immediately get off elevated areas such as hills, mountain ridges or peaks.
- Never lie flat on the ground, seek shelter under an isolated tree, or shelter under a cliff or rocky overhang.
- Immediately get out and away from ponds, lakes, and other bodies of water.
- Stay away from objects that conduct electricity — e.g., barbed wire fences, power lines, windmills, etc.

Curtailment of Site Activity

Lightning activity shall be monitored using appropriate detection equipment. Project Entities shall be responsible for ensuring the appropriate steps are taken to minimize personnel exposure if lightning threatens during site activities.

Yellow Alert

When an approaching storm with lightning is detected — using appropriate detection equipment or NOAA — within 25 miles of the job site, a Yellow Alert shall be given to all personnel on site.

Yellow Alert — This is a warning used to inform crane operators, man lift operators, and personnel working in elevated positions that a storm with potential lightning is approaching. This announcement is for informational purposes only; the intent is that personnel working at elevated positions or performing crane operations understand that lightning activity is imminent.

Orange Alert

When an approaching storm with lightning is detected — using appropriate detection equipment or NOAA — within 15 miles of the job site, an Orange Alert shall be given to all personnel on site.

Orange Alert — This is used to alert all personnel involved with crane operations, man lift operations, and those personnel working at elevated locations to stop work, exit elevated positions, and/or secure loads due to inbound lightning activity.

Red Alert

When an approaching storm with lightning is detected — using appropriate detection device or NOAA — within 10 miles of the job site, a Red Alert shall be given to all personnel on site.

Red Alert — This is used to alert all site personnel that a storm containing lightning activity is inbound. All personnel shall move to protected areas that are properly grounded without delay.

The following areas are prohibited from use during the 10 Mile Lightning Stand-Down Action Alert unless the area is properly grounded:

- Smoking pits
- Welding shacks

- Exposed rooms/locations
- Tools sheds or shanties

All Clear

All Clear — An All Clear is a call to go back to continue groundwork.

All Clear will be announced once lightning activity has ceased for a period of 30 minutes and there is no additional lightning activity within the 10-mile radius — i.e., Red Alert. This determination shall be made using appropriate detection equipment or NOAA.

As lightning moves further away from the job site, beyond the Orange and Yellow Alert radii, the announcement will be made for crane operations, man lift operations, and elevated work to recommence.

Once lightning has gone beyond the radius of the Red Alert but not yet reached the Orange Alert, workers on crane operations, man lift operations, and elevated work may return to their work areas but shall not start those operations until the lightning activity has gone beyond the Orange Alert. In between the Orange Alert and Yellow Alert, employees must remain aware that a storm is in the area, but all work may resume.

Lightning activity alerts shall be managed by the on-site project management team.

Tornado

Tornado Watch — This means tornadoes are possible in the area; remain alert for the approaching storm.

Tornado Warning — This occurs when a tornado has been sighted or has been indicated by weather radar. If a tornado warning is issued for a person's area, they shall move to a pre-designated place of safety.

Project Entities shall be responsible for the development of a Tornado Response Plan based on project location and the availability of adequate shelter.

Project Entities shall confirm that project personnel are able to react quickly and safely by conveying the appropriate response actions if a tornado occurs.

Flash Floods

Flash Flood Watch — This indicates that a flash flood is possible in the area. Individuals are to stay alert and watch for deteriorating conditions.

Flash Flood Warning — This is issued when a flash flood is imminent. Individuals are to take immediate protective actions.

In the event of a flash flood, project personnel shall take the following steps:

- Listen to local radio and TV stations for information and advice.
- Stop work — if advised to evacuate, do so immediately.
- Move to a safe area.

- Do not attempt to drive over a flooded roadway.
- Do not drive into barricaded areas

Heat Stress

In areas where heat stress may impact employee health and safety, acclimatization and heat stress shall be assessed to establish proper work/rest regimens and fluid replacement. Heat stress and heat strain are conditions resulting from environmental factors, including temperature, relative humidity, radiant heat transfer, and air movements, as they are affected by clothing.

The primary objective of the Heat Illness Prevention Program is to prevent heat stroke, which is life-threatening and the most serious of the heat-induced disabilities.

Project Entities shall be required to develop a Heat Illness Prevention Program. Safety Form K-5, "Heat Illness Prevention Program," shall be submitted to Burns & McDonnell and/or its subsidiaries.

Project Entities shall designate program administrator(s) to confirm compliance with their Heat Illness Prevention Program.

Training

The Subcontractors designated program administrator(s) shall have received training in first aid and cardiopulmonary resuscitation (CPR), including training in heat-related illnesses.

While in hot environments, toolbox safety training shall include recognizing, preventing, and treating the signs and symptoms of heat stress. While in potential heat stress conditions, ice shall be readily available to rapidly cool victims.

Body Fluid Replacement

When the Subcontractors program administrator(s), determine heat stress to be a concern, water shall be made available for employee fluid replacement. Balanced, electrolyte solutions to replace fluid and electrolyte loss may be present, but shall not be used as a substitute for water. Employees shall be provided with replacement fluids, as needed.

Heat Assessment

The Subcontractor's program administrator(s) shall assess employees and weather conditions to determine when to begin heat stress assessment. For employees with permeable work clothing, Wet Bulb Globe Temperature (WBGT) Index or physiological monitoring shall be conducted. For employees in impermeable work clothing, only physiological monitoring shall be conducted to determine appropriate controls.

WBGT Monitoring

WBGT Index Monitoring guidelines for the threshold limit values (TLVs) are provided in Table 29-1.

Table 29-1 WBGT Index Monitoring for TLV				
TLV BASED ON WBGT READINGS IN DEGREES FAHRENHEIT				
Allocation of Work in a Cycle of Work and Recovery	Light Sitting with light manual work with hands and/or arms; driving; standing with some light arm work; and occasional walking.	Moderate Sustained, moderate hand and arm work; moderate arm and leg work; moderate arm and trunk work; light pushing and pulling; or normal walking.	Heavy Intense arm and trunk work; carrying; shoveling; manual sawing; pushing and pulling heavy loads; and walking at a fast pace.	Very Heavy Very intense activity at fast to maximum pace.
75 to 100%	87.8	82.4	-	-
50 to 75%	87.8	84.2	81.5	-
25 to 50%	89.6	86	84.2	76.1
0 to 25%	90.5	88.7	86.9	80.6
Adapted from AGCIH 2011 TLV®s and BEI®s, Thermal Stress, Tables 2 and 3.				
Notes: Operations conducted outdoors may expose workers to weather, ecological hazards, and other location-related hazards.				

Physiological Monitoring

One or more measures may mark excessive heat strain, and an individual's exposure to heat stress shall be discontinued when any of the following occur:

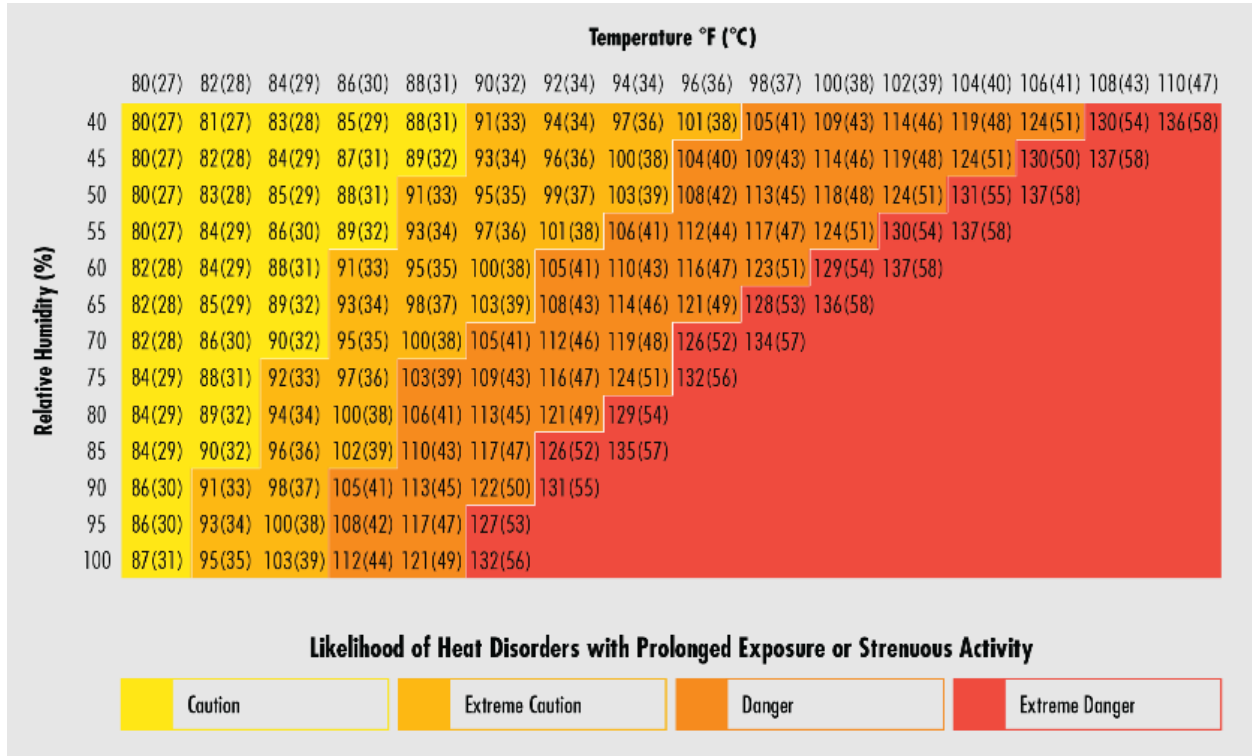
- Sustained — i.e., several minutes — heart rate exceeding 180 beats per minute (bpm) minus the individual's age in years — e.g., 180 minus age — for individuals with assessed normal cardiac performance.
- Body core temperature is greater than 101.3 degrees Fahrenheit for medically selected and acclimatized personnel, or greater than 100.4 degrees Fahrenheit in unselected, unacclimatized workers.
- Recovery heart rate at one minute after a peak work effort is greater than 120 bpm.
- There are symptoms of sudden and severe fatigue, nausea, dizziness or lightheadedness.

An individual may be at greater risk of heat-related disorders if:

- Profuse sweating is sustained over hours.
- Weight loss over a shift is greater than 1.5% of body weight.

- 24-hour urinary sodium excretion is less than 50 moles.

Figure 29-1 Heat Index Chart



Acclimatization

A properly designed and applied heat acclimatization program decreases the risk of heat-related illnesses. Such a program, in essence, involves exposing employees to work in a hot environment for progressively longer periods. The following protocol shall be followed:

- For workers who have had previous experience in jobs where heat levels are high enough to produce heat stress, the regimen shall be 50% exposure on day one, 60% on day two, 80% on day three, and 100% on day four.
- For new workers who will be similarly exposed, the regimen shall be 20% on day one, with a 20% increase in exposure each additional day.

Rest Breaks

When heat stress conditions are applicable, all rest breaks shall be taken away from the work area, and in a cooler, shaded rest area. If these conditions are not available, more frequent rest breaks shall be taken. Persons who are not acclimatized shall be allowed additional breaks.

Sunscreen

Where there is potential for sunburn to skin exposed to solar radiation — short or long term — Personnel shall be responsible for providing their employees sunscreen with a sun protection factor (SPF) appropriate for their skin type and length of exposure.

Monitoring Heat Stress

Project Entities shall monitor their employees for heat stress by observing the symptoms of workers. See Table 29-2, “Symptoms and Treatment of Heat Stress,” for more information about the symptoms of heat stress.

Heat Stroke

The most serious heat-related disorder is heat stroke. Heat stroke occurs when the body becomes unable to control its temperature: the body’s temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature may rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Heat Exhaustion

Heat exhaustion is the body’s response to an excessive loss of water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those who are elderly, have high blood pressure, and those working in a hot environment.

Heat Cramps

Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body’s salt and moisture levels; low salt levels in muscles then cause painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Heat Rash

Heat rash is a form of skin irritation caused by excessive sweating during hot, humid weather.

Heat Syncope

Heat syncope refers to a fainting — i.e., syncope — episode or dizziness that usually occurs with prolonged standing, or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

Table 29-2 Symptoms and Treatment of Heat Stress

	HEAT SYNCOPE	HEAT RASH	HEAT CRAMPS	HEAT EXHAUSTION	HEAT STROKE
Signs and Symptoms	Sluggishness or fainting while standing erect or immobile in heat.	<ul style="list-style-type: none"> • A skin irritation caused by excessive sweating during hot, humid weather. • Profuse tiny, raised, red, 	Painful spasms in muscles used during work — e.g., arms, legs, or abdomen — onset during or	<ul style="list-style-type: none"> • Fatigue, nausea, headache, giddiness. • Skin cool, moist and/or clammy. • Complexion pale, muddy, flushed or red skin. 	<ul style="list-style-type: none"> • Life threatening. • Red, hot, dry skin. • Dizziness. • Confusion. • Rapid breathing and rapid weak pulse. • High oral temperature, as high as 105°F.

Table 29-2 Symptoms and Treatment of Heat Stress					
	HEAT SYNCOPE	HEAT RASH	HEAT CRAMPS	HEAT EXHAUSTION	HEAT STROKE
		blister-like vesicles on affected areas, along with prickling sensations during heat exposure.	after work hours.	<ul style="list-style-type: none"> • May faint on standing. • Rapid, weak pulse and low blood pressure. • Oral temperature normal or low. 	
Treatment	<ul style="list-style-type: none"> • Remove to cooler area. • Rest lying down. • Increase fluid intake. • Recovery usually is prompt and complete. 	<ul style="list-style-type: none"> • Keep skin clean and dry, preventing infection. • Avoid using ointments or creams, as they keep the skin warm and moist, and may make the condition worse. • Try to work in a cooler, less humid environment when possible. 	<ul style="list-style-type: none"> • Remove to cooler area. • Rest lying down. • Increase fluid intake. 	<ul style="list-style-type: none"> • Remove to cooler area. • Remove or loosen tight clothing and apply cool, wet cloths, such as towels or wet sheets. • Rest lying down, with head in low position. • If person is awake and alert, give a half glass of cool water every 15 minutes. Do not let them drink too quickly. • Seek medical attention. 	<ul style="list-style-type: none"> • Call 911 or local Emergency Medical Services. • Move the person to a cooler place. • Keep the person lying down. • Quickly cool the body by wrapping wet sheets around the body and fan it. • If ice packs or cold packs are available, wrap them in a cloth and place them on each of the victim's wrists and ankles, in the armpits, and on the neck to cool the large blood vessels. • Watch for signals of breathing problems and make sure the airway is clear.

Ultraviolet Radiation/Sun Exposure

Ultraviolet (UV) Rays

Ultraviolet (UV) rays are a part of sunlight that is an invisible form of radiation. UV rays are able to penetrate and change the structure of skin cells.

The three types of UV rays are:

- **Ultraviolet A (UVA)**
 - UVA is the most abundant source of solar radiation at the Earth's surface and penetrates beyond the top layer of human skin. Scientists believe that UVA radiation can cause damage to connective tissue and increase a person's risk for developing skin cancer.
- **Ultraviolet B (UVB)**

- UVB rays penetrate less deeply into skin but can still cause some forms of skin cancer.

- **Ultraviolet C (UVC)**

- Natural UVC rays do not pose a risk to workers because they are absorbed by the Earth's atmosphere.

Sunlight Exposure

Sunlight exposure is highest during the summer and between 10:00 a.m. and 4:00 p.m. Working outdoors during these times increases the chances of getting sunburned.

Snow and light-colored sand reflect UV light and increase the risk of sunburn.

Subcontractors personnel may be at risk of UV radiation even on cloudy days.

Prevention

Project Entities shall be responsible for taking the following steps to protect workers from exposure to UV radiation:

- If possible, avoid scheduling outdoor work when sunlight exposure is the greatest.
- Provide employees with training regarding UV radiation, including:
 - Their risk of exposure.
 - How to prevent exposure.
 - The signs and symptoms of overexposure.

Project Entities shall be responsible for ensuring their employees observe the following recommendations to protect themselves from UV damage:

- Wear sunscreen with a minimum SPF of 15.
- Wear appropriate clothing.

Sunscreen Performance and SPF

SPF refers to the amount of time that person will be protected from a burn. A sunscreen with an SPF of 15 allows a person to stay out in the sun 15 times longer than they normally would be able to stay without burning.

The SPF also rating applies to skin reddening and protection against UVB exposure.

SPF does not refer to protection against UVA. Products containing Mexoryl, Parsol 1789, titanium dioxide, zinc oxide, or avobenzone block UVA rays.

Sunscreen performance is affected by wind, humidity, perspiration, and proper application.

Old sunscreens shall be thrown away because they lose their potency after one to two years.

Sunscreens shall be liberally applied at least 20 minutes prior to sun exposure.

When sunscreen is applied, special attention shall be given to covering the ears, scalp, lips, neck, tops of feet, and backs of hands.

Sunscreens shall be reapplied at least every two hours.

Some sunscreens may also lose efficacy when applied with insect repellents, necessitating more frequent application when the two products are used together.

When applying sunscreen, the application directions provided on the sunscreen bottle shall be followed.

Appropriate Clothing

Clothing with a tight weave is more protective than loosely woven clothing.

High-SPF clothing has been developed to provide additional protection for those with photosensitive skin or a history of skin cancer.

Cold Stress

This procedure applies to project personnel who perform fieldwork in cold environments at risk of cold stress injury. Frostbite, hypothermia, and trench foot are the most common cold-induced problems that personnel must be protected against.

Project Entities shall be required to develop a Cold Stress Prevention Program using Safety Form K-6, "Winterization & Preparedness Plan," or equivalent, which shall be submitted to Burns & McDonnell and/or its subsidiaries.

Training

Project Entities shall be responsible for ensuring project personnel are training on cold stress safety and health procedures, as applicable. The Subcontractor's training program shall include, at a minimum, instruction in the following areas:

- Proper first aid treatment.
- Proper clothing practices.
- Proper eating and drinking habits.
- Recognition of impending frostbite.
- Recognition of the signs and symptoms of impending hypothermia or excessive cooling of the body when shivering does not occur.
- Safe working practices.

Environmental Monitoring

Frostbite and hypothermia are two types of cold injury that project personnel shall be protected against during the performance of field duties. Factors influencing the development of a cold injury include ambient temperature, wind velocity, moisture from the environment, and/or sweating.

Project Entities shall be responsible for monitoring environmental conditions by recording ambient temperature and estimated wind speed. Information contained in Tables 32-1 and 32-2 shall be used to evaluate the possibility of hypothermia occurring among workers on site.

Protective Clothing and Rest Breaks

Project personnel shall wear appropriate cold weather clothing when temperatures are at or below 40 degrees Fahrenheit to protect exposed skin. These protective items may include coats, thermal suits, gloves, facemasks, and footwear. The objective is to protect all parts of the body, with emphasis on the hands and feet. If windchill is a factor on the work site, the cooling effect of the wind shall be reduced by shielding the work area or requiring workers to wear an outer windbreak-layer garment. Eye protection against glare and ultraviolet light are recommended in snowy and icy conditions.

If heavy work must be done, opportunities for rest breaks shall be provided where workers have the opportunity to remove clothing layers and/or to change into dry clothing. Conversely, work activities shall be planned to minimize time spent sitting or standing still. Rest breaks shall be taken in a warm, dry area. Workers handling evaporative solvents during cold stress conditions shall take special precautions to avoid soaking gloves and clothing because of the added danger of prolonged skin contact and evaporative cooling.

In addition to wearing gloves for hand warmth, the following recommendations are adapted from the Occupational Safety and Health Administration's (OSHA's) 2007 cold-stress Emergency Preparedness Guide:

- Wear at least three layers of clothing.
 - An inner layer of wool, silk or synthetic to wick moisture away from the body.
 - A middle layer of wool or synthetic to provide insulation even when wet.
 - An outer layer for wind and rain protection that allows some ventilation to prevent overheating.
- Wear a hat or hood. Up to 40% of body heat can be lost when the head is left exposed.
- Wear insulated boots or similar waterproof footwear.
- Keep a change of dry clothing available in case work clothes become wet.
- With the exception of the wicking layer, do not wear tight clothing. Loose clothing allows better ventilation of heat away from the body.
- Avoid touching cold metal surfaces with bare skin.
- Monitor your physical condition and that of your co-workers.
- Move into warm locations during work breaks.

- Limit the amount of time outside on extremely cold days.

Drink plenty of liquids to keep hydrated, avoiding caffeine and alcohol.

Identification and Treatment of Cold Stress

When frostbite, hypothermia, or other cold stress symptoms are suspected, treat the patient to relieve symptoms or transport them to a medical facility.

Figure 32-1 Cooling Power of Wind on Exposed Flesh

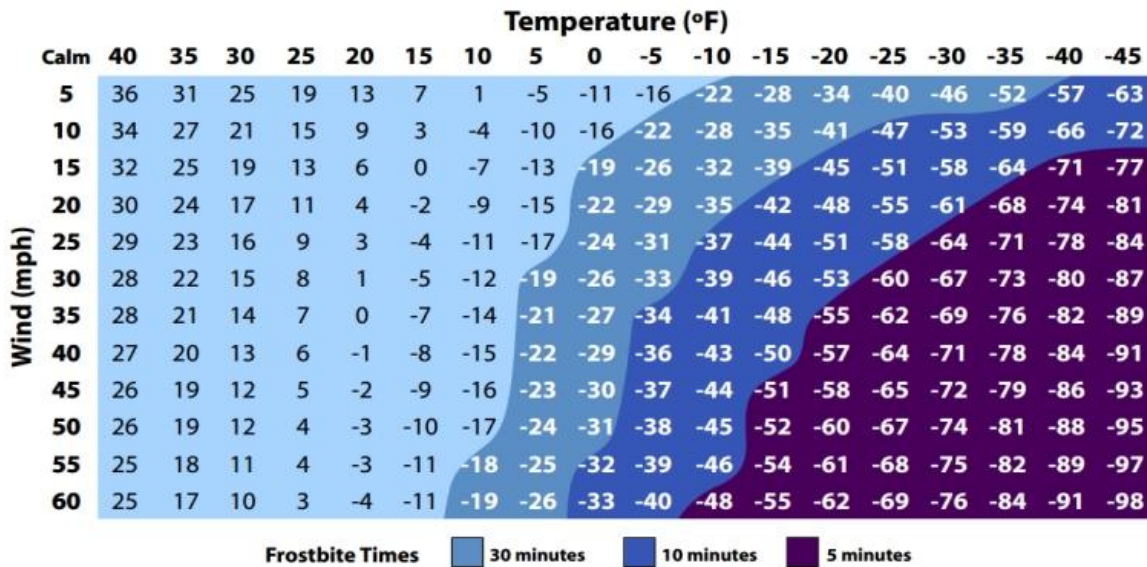
Wind Speed	Air Temperature (°F)																	
	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	27	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95

Wind speed based on measures at 33 feet height. If wind speed measured at ground level multiply by 1.5 to obtain wind speed at 33 feet and then utilize chart.

Risk of Frostbite		
Green	Yellow	Red
Slight Danger (frostbite occurs in less than two hours in dry, exposed skin)	Increased Danger (frostbite could occur in 45 minutes or less in dry, exposed skin)	Great Danger (frostbite could occur in 5 minutes or less in dry, exposed skin)
Wet skin could significantly decrease the time for frostbite to occur		

Windchill index is used to estimate the combined effect of wind and low air temperatures on exposed skin. The windchill index does not take into account the body part that is exposed, the level of activity, or the amount or type of clothing worn. For those reasons, it shall only be used as a guideline to warn workers when they are in a situation that may cause cold-related illnesses.

Figure 32-2 NOAA Wind Chill Chart



$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

NSC Guidelines for work and warm-up schedules can be used with the windchill index to estimate work and warm-up schedules for fieldwork. The guidelines are not absolute; workers shall be monitored for symptoms of cold-related illnesses. If symptoms are not observed, the work duration may be increased.

Hypothermia

When exposed to cold temperatures, the body begins to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up the body's stored energy. The result is hypothermia, i.e., an abnormally low body temperature. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia particularly dangerous because a person may not know it is happening and will not be able to do anything about it.

Symptoms of hypothermia can vary depending on how long an individual has been exposed to cold temperatures.

Early Symptoms

Early symptoms of hypothermia include:

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

Late Symptoms

Late symptoms of hypothermia include:

- No shivering
- Blue skin
- Dilated pupils
- Slowed pulse and breathing
- Loss of consciousness

Treatment of Hypothermia

The following steps shall be taken to treat project personnel who are suffering from hypothermia:

- Alert the supervisor and request medical assistance.
- Move the victim into a warm room or shelter.
- Remove their wet clothing.
- Warm the center of their body first — chest, neck, head, and groin —using an electric blanket, if available; or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels, or sheets.
- Warm beverages may help to increase body temperature, but do not give alcoholic beverages to an individual with hypothermia, and do not attempt to give beverages to an unconscious person.
- After their body temperature has increased, keep the victim dry and wrapped in a warm blanket, including the head and neck.
- If the victim has no pulse, begin cardiopulmonary resuscitation (CPR).

Frostbite

Frostbite is an injury to the body that is caused by freezing. Frostbite causes a loss of feeling and color in the affected areas. It most often affects the nose, ears, cheeks, chin, fingers or toes. Frostbite can permanently damage body tissues, and severe cases may lead to amputation. In extremely cold temperatures, the risk of frostbite is increased in workers with reduced blood circulation and among workers who are not dressed properly.

Symptoms of Frostbite

Symptoms of frostbite include:

- Reduced blood flow to hands and feet — fingers or toes can freeze
- Numbness
- Tingling or stinging
- Aching

- Bluish or pail, waxy skin

Treatment of Frostbite

Project personnel suffering from frostbite shall do the following:

- Get into a warm room as soon as possible.
- Unless absolutely necessary, do not walk on frostbitten feet or toes — this increases the damage.
- Immerse the affected area in warm, not hot, water — the temperature is to be comfortable to the touch for unaffected parts of the body.
- Warm the affected area using body heat; for example, the heat of an armpit can be used to warm frostbitten fingers.
- Do not rub or massage the frostbitten area; doing so may cause more damage.
- Do not use a heating pad, heat lamp, or the heat of a stove, fireplace, or radiator for warming. Affected areas are numb and can be easily burned.

Cold Water Immersion

Cold water immersion creates a specific condition known as immersion hypothermia. It develops much more quickly than standard hypothermia because water conducts heat away from the body 25 times faster than air. Typically people in temperate climates don't consider themselves at risk from hypothermia in the water, but hypothermia can occur in any water temperature below 70 degrees Fahrenheit.

Survival times can be lengthened by wearing proper clothing — wool and synthetics and not cotton — using a personal flotation device (PFD) — e.g., life vest, immersion suit, dry suit, etc. — and having a means of both signaling rescuers — e.g., strobe lights, personal locator beacon, whistles, flares, waterproof radio, etc. — and having a means of being retrieved from the water.

3.4 Significant Changes and Hazard Updates

A daily job briefing shall be held prior to the commencement of work and after lunch break or other significant break. It shall be conducted by the Crew Leader. As work progresses, it may be necessary to add or change the tasks and controls. If there are changes to the work, a job briefing shall be held. Any significant changes to the scope of work, work practices and/or site conditions shall be evaluated for new hazards and the associated risks. As necessary, new controls will be identified and documented. The safety plan must be amended for site-specific, significant changes. Any changes to the job will be reviewed and documented in a job brief. If the change is temporary and minor, the new information may be documented in the job brief only.

Crew Leader shall conduct a Daily job briefing prior to commencement of work, and after lunch break or other significant break.

4.0. Communication

4.1 Emergencies

Methods of communicating life-threatening emergencies must be determined and communication devices tested before the start of a job. The location and directions to the job site must be readily available at the job site and at the office that may be communicating the emergency to responders. The location and directions to the closest emergency facility must also be available on-site. It is the General Foreman's responsibility to confirm that all crew members on site are aware of the nearest emergency facilities during the morning safety meeting.

Given the geographical extents of the Project, site-specific hospital information has been identified for each of the three distinct project segments identified in Section 1.0. Please refer to the respective HASP Addendums for site-specific hospital information and route to hospital maps/directions.

4.2 Incident Reporting and Analysis

The subcontractors shall immediately notify Burns & McDonnell, who shall immediately notify PSEG Long Island of any incidents that take place on the project site.

The PSEG Long Island "Incident Analysis Report" shall also be submitted to Burns & McDonnell and the PSEG Long Island team within twenty-four (24) hours of the incident.

All "recordable" accidents, deaths or incidents involving significant equipment damage, facility damage or PSEG Long Island property damage shall be immediately communicated to the Site Safety & Health Professional and the Site Manager. If the Site Safety & Health Professional or the Site Manager is not available, notify any Burns & McDonnell employee.

4.3 Safety Meetings and Job Briefings

Safety Meetings

Meeting records retention shall comply with regulatory and company requirements, including the requirements for documented, signed job briefs that are available on-site and retained for 30 days after the job is complete.

At the time of the Weekly Project Site Coordination Meeting, Project Safety & Health Coordination will also be discussed. At this weekly meeting, up-to-date Subcontractors work hours shall be submitted as well as other safety & health statistics. Allotted time shall be, up to two hours attendance by the Subcontractors Safety & Health representative, for Burns & McDonnell to specifically address safety, health and coordination concerns with the Subcontractors. This time shall also serve as a forum for the Subcontractors to discuss safety & health concerns as related to each other and the project. Burns & McDonnell will facilitate any concerns between the Subcontractors and will assist in finding adequate solutions.

Job Briefing / Pre-Task Analysis (PTA)

A daily job briefing shall be held prior to the commencement of work and after lunch break or other significant break. It shall be conducted by the Crew Leader. As work progresses, it may be necessary to add or change the tasks and controls. If there are changes to the work, a job briefing shall be held. Any significant changes to the scope of work, work practices and/or site conditions shall be evaluated for new hazards and the associated risks. As necessary, new controls will be identified and documented. The safety plan must be amended for site-specific, significant changes. Any changes to

the job will be reviewed and documented in a job brief. If the change is temporary and minor, the new information may be documented in the job brief only.

A Job Briefing shall:

- Cover at least the following subjects: Hazards associated with the job, work procedures involved, special precautions, energy-source controls, and personal protective equipment requirements.
- Be conducted and documented daily, before work (specific to the task being performed)
- Additional job briefings shall be held if significant changes or break, which might affect the safety of the employees, occur during the course of the work. This includes after lunch, when scope of work changes, or if an additional employee joins the crew.
- The briefing must be signed by all crew members.
- A copy of all PTA reports must be submitted to Burns & McDonnell weekly.

Refer to Appendix C – Job Briefing Form /Pre-Task Analysis (PTA)

Work Area Safety & Health Inspections

The front-line supervisor of each crew shall conduct daily work area safety and health inspections. The completed reports are to be submitted weekly to Burns & McDonnell. The reports shall include deficiencies detected and corrective action taken.

Task Safety Observations (TSO)

The site manager shall be responsible for the implementation of the Task Safety Observation Program when Burns & McDonnell and/or its subsidiaries are contractually responsible for safety.

When contractually responsible for safety, Burns & McDonnell and/or its subsidiaries' executive/senior management may conduct Task Safety Observations at their sole discretion.

Burns & McDonnell and/or its subsidiaries' site management shall be required to perform a minimum of three (3) formal Task Safety Observations per week and provide immediate, certain, and positive feedback to those individuals/groups observed.

The requirement to participate in the Task Safety Observation Program applies to, but is not limited to, the following:

- Site manager/construction manager.
- Assistant project manager — when applicable.
- Project superintendent(s).
- Discipline superintendent(s).
- General Foremen.

- Foremen.
- Quality assurance manager — when applicable.
- Site safety manager/specialist — when applicable.
- Field engineer — when applicable.

Subcontractors/contractors, supervisors and front-line managers shall be required to perform a minimum of three (3) formal Task Safety Observations per week, when present on site, and provide immediate, certain, and positive feedback to those individuals/groups observed.

Subcontractors/contractors supervisors and front-line managers include, but are not limited to:

- Project/site manager.
- Assistant project/site manager — when applicable.
- Project/general superintendent(s).
- Discipline superintendents(s).
- General foremen.
- Foremen.

A formal Task Safety Observation shall consist of the following process:

- Observe crew at work, noting the safe and “at risk” behaviors.
- Review safe and “at risk” behaviors with crew after observation is complete (immediate).
- Commend safe behaviors (positive/certain).
- Corrective coaching, if necessary (certain), crew shall be involved to make the condition or task safe (positive).
- Encourage continued improvement (certain).
- Completion of the Task Safety Observation Card/Form.
- Workers being observed shall remain anonymous.

Completed Task Safety Observations shall be submitted to the site manager or his/her designee daily.

No later than the fifth day of each month, the previous month’s Task Safety Observations shall be submitted via the Safety Management System.

Negative trends or issues identified are to be targeted for improvement.

Project Task Safety Observation results will be communicated to the workforce.

Improvements made by the workforce will be recognized and/or rewarded at the discretion of the project/site management team.

4.4 Safety and Health Plan

The contents of the Safety and Health Plan must be reviewed with the work crews at a minimum, before the start of the project, whenever there is a significant change, or when new workers join the crew. The review should focus on the work tasks and associated hazards, risks and control measures.

5.0 PSEG Long Island Technical Safety Requirements

The PSEG Long Island Safety Procedure entitled, "Contractor Safety Requirements", presents rules and work practices that are unique to operations at PSEG Long Island. Contractors will be subject to all or some of these requirements depending on the work.

6.0 Safety Compliance

Procedure

The Subcontractors are responsible for managing its own Project Specific Safety & Health Program and related programs. The subcontractors are also responsible for monitoring and enforcing the project disciplinary procedures, or disciplinary procedures which are more stringent, for workers performing non-conformance work in relation to Safety & Health. The subcontractors shall monitor the work of their workers to confirm the workers' actions do not create an unsafe condition, which may result in harm to themselves, other persons on site or property damage.

If the subcontractors management fails to enforce the disciplinary procedures established in this manual, Burns & McDonnell may take disciplinary action against it.

Enforcement

The subcontractors are responsible for enforcing all Safety & Health procedures adopted on this project. Burns & McDonnell will take disciplinary action against Subcontractors management for failing to enforce such procedures.

7.0 Environmental Compliance

Contractors must comply with all environmental regulations, permit conditions and restrictions. In accordance with company requirements, PSEG Long Island representatives are responsible for monitoring environmental conditions during the project and ensuring deficiencies and emergencies are handled appropriately.

8.0 Burns & McDonnell Requirements

In addition to this Safety Plan, the Subcontractors of Burns & McDonnell must also follow the Burns & McDonnell Site-Specific Safety and Health Plan.

Appendix A – Emergency Contact Information

**SAFETY AND HEALTH PLAN
EMERGENCY CONTACT INFORMATION**

Project Name & Location: Newbridge Bypass Project	
Emergency/Fire/Police Phone Number:	Emergency: Call 911
Nearest Hospital Name/Address/Phone	REFER TO SITE-SPECIFIC ADDENDUMS

PSEG Long Island Health and Safety Program Manager:		Michael Forstmann	
Office Phone No.	N/A	Mobile Phone No.	512-924-8196
E-mail address:	Michael.Forstmann@psegliny.com		

PSEG Long Island Senior Safety Representative:		Joe Dwyer	
Office Phone No.	N/A	Mobile Phone No.	516-805-1367
E-mail address:	Joseph.Dwyer@psegliny.com		

PSEG Long Island Project Manager:		Jim Godfrey	
Office Phone No.	N/A	Mobile Phone No.	516-383-8005
E-mail address:	James.godfrey@psegliny.com		

PSEG Long Island Field Supervisor		TBD	
Office Phone No.	N/A	Mobile Phone No.	TBD
E-mail address:	TBD		

Contractor Contact and Title:		LeLand Rowse / Project Manager	
Contractor Company Name:		Burns & McDonnell EGS, P.C.	
Office Phone No.	816-652-2672	Mobile Phone No.	913 526 7698

E-mail address:	lrowse@burnsmcd.com
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Contractor Contact and Title:	Ana Garcia / Ast. Project Manager		
Contractor Company Name:	Burns & McDonnell EGS, P.C.		
Office Phone No.	816-708-0425	Mobile Phone No.	316-558-6102
E-mail address:	asgarcia@burnsmcd.com		

Contractor Contact and Title:	Megan Barcus, Safety Specialist		
Contractor Company Name:	Burns & McDonnell Consultants, Inc. d/b/a Burns & McDonnell Consultants, P.C.		
Office Phone No.	816-447-9953	Mobile Phone No.	913-428-6458
E-mail address:	mlbarcus@burnsmcd.com		

Contractor Contact and Title:	Ella Olen, Safety Specialist		
Contractor Company Name:	Burns & McDonnell Consultants, Inc. d/b/a Burns & McDonnell Consultants, P.C.		
Office Phone No.	816-349-6659	Office Phone No.	763-772-2522
E-mail address:	ejolen@burnsmcd.com		

Subcontractor Contact and Title:	Kristin Baltadonis, Project Manager		
Subcontractor Company Name:	Paulus, Sokolowski and Sartor Engineering, P.C. (PS&S)		
Office Phone No.	732 584 0312	Office Phone No.	732 584 0312
E-mail address:	kbaltadonis@psands.com		

Subcontractor Contact and Title:	Andrew Clark, Lead Project Scientist (General Foreman)		
Subcontractor Company Name:	Paulus, Sokolowski and Sartor Engineering, P.C. (PS&S)		
Office Phone No.	732-584-0454	Mobile Phone No.	908-240-3117

E-mail address:	aclark@psands.com
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Appendix B – General Project Work Plan

The following step-by-step work plan outlines the tasks to be conducted by the subcontractor PS&S field crews under the direction of Burns & McDonnell. All activities will be performed within the Site Location defined in Figure A and will be executed on foot using manual tools and mobile devices. No heavy machinery will be used.

1. Pre-Field Planning and Mobilization
 - a. Conduct pre-field safety briefings and job hazard analyses.
 - b. Confirm team training compliance (e.g., CPR, First Aid, AED).
 - c. Distribute field equipment (GPS units, tablets, forms, PPE).
 - d. Coordinate access with BMcD and secure necessary site notifications.
2. Access and Site Layout
 - a. Enter site via approved roadways, ROW access points, or public lands.
 - b. Define work areas using cones or stakes if necessary.
 - c. Use spotters near roadways; wear Class 3 high-visibility gear.
3. Ecological Field Surveys
 - a. Perform visual habitat evaluations across the corridor.
 - b. Map ecological features using GPS and document with photos.
 - c. Use mobile tablets and digital or paper forms for data entry and logging.
4. Wetland and Waterbody Evaluation
 - a. Identify and assess wetlands and drainage features.
 - b. Collect water quality indicators using handheld meters.
 - c. Complete standardized visual assessment protocols.
5. Rare, Threatened, and Invasive Species Documentation
 - a. Observe and record RTE species using visual/auditory identification.
 - b. Photograph and log invasive species with location metadata.
 - c. Ensure minimal habitat disturbance.
6. Archaeological and Soil Investigations
 - a. Execute Phase 1A and 1B archaeological surveys.
 - b. Excavate hand shovel test pits (STPs) with hand tools (trowels, augers).
 - c. Log soil types, stratigraphy, and artifact observations.
 - d. Perform shallow auguring for soil characterization (hand auger/probe only).
7. Vegetation and Habitat Assessment
 - a. Measure tree diameters at breast height (DBH); score vegetation health.
 - b. Document dominant vegetation types and cover conditions.
 - c. Record findings on digital checklists and with photo logs.
8. Navigation and Communication
 - a. Use GPS, hardcopy maps, phones, and/or radios to maintain team awareness.
 - b. Follow buddy system and maintain field check-in schedule.
 - c. Ensure communications are active in remote or low-signal areas.
9. Demobilization and Site Cleanup
 - a. Secure and pack up all field equipment.
 - b. Sweep work zones for litter, debris, and markers.

Appendix C – Job Briefing Form /Pre-Task Analysis (PTA)

		Burns & McDonnell Safety Form C-10 Pre-Task Analysis (PTA-T&D)				
Project Name:		Project #:		Date:		
Location:			Work Area:			
Company:			Submitted By:			
<p>The PTA shall be completed daily by the front line supervisor for each major work task with the participation of the work crew. Each employee involved in the task shall sign the PTA. If deviation from known safe work practice or procedure occurs, work must be stopped immediately.</p>						
Task / Activity Description:						
AHA #:	Employees trained on the AHA? <input type="checkbox"/> Yes <input type="checkbox"/> No	Does task require special training? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, note in certifications below, or Other:				
R-10 Host – Contractor Information Transfer completed? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Communication plans: In place? <input type="checkbox"/> Yes <input type="checkbox"/> No		Communication Method(s):		Emergency Number:		
DAP - Designated Assembly Points			Primary		Secondary	
Safety Equipment:			Safety shower & Eyewash location(s):		First Aid Kit Location(s):	
Wind: Direction: Speed: mph/knots		Weather conditions:		Temperature: °F	Weather acceptable for task? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Nearest Hospital:			Nearby Occupational Health Clinic:			
Air Monitoring Equipment: <input type="checkbox"/> H2S Monitor <input type="checkbox"/> 4-Gas <input type="checkbox"/> Other:				Calibration/Bump Test Date:		
Respirator		Air: <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please list the type:				
Contaminants of Concern:			Safety Department involved in planning this job? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Daily inspections completed - <input type="checkbox"/> Yes <input type="checkbox"/> No		Utilities Contacted (One Call) <input type="checkbox"/> Yes <input type="checkbox"/> No		Underground Utilities Located: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Permits/Plans/Procedures/Programs - Required and IN-PLACE: <input type="checkbox"/> Yes <input type="checkbox"/> No Check as appropriate			Name of competent person(s):		Contacts for Owner's Control Center:	
<input type="checkbox"/> Excavation/Trenching	<input type="checkbox"/> LOTO	<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> Cranes/Critical Lifts	<input type="checkbox"/> Abatement- Asbestos	<input type="checkbox"/> System Testing	
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Steel Erection	<input type="checkbox"/> Geo Drilling/Pushing	<input type="checkbox"/> Materials Storage/Handling	<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Line Breaking/Hot Tapping	
<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Signs/Barricades	<input type="checkbox"/> Railway/ Blue Flag/ De-Railer	<input type="checkbox"/> Demolition	<input type="checkbox"/> Housekeeping	
<input type="checkbox"/> Decontamination	<input type="checkbox"/> Grounding Plans	<input type="checkbox"/> Hazardous Waste	<input type="checkbox"/> Isolation of Equip.	<input type="checkbox"/> Switching	<input type="checkbox"/> Outages	
<input type="checkbox"/> Other (Specify)						
Employee Certification's Required: <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> CPR/First Aid <input type="checkbox"/> LOTO <input type="checkbox"/> Rigging	<input type="checkbox"/> Crane Operator <input type="checkbox"/> Fall Protection <input type="checkbox"/> Signalman	<input type="checkbox"/> Mobile Equipment Operator <input type="checkbox"/> Forklift Operator <input type="checkbox"/> Powder Actuated Tool User	<input type="checkbox"/> High Voltage <input type="checkbox"/> Lead or Asbestos <input type="checkbox"/> Welding/ Cutting	<input type="checkbox"/> HAZWOPER <input type="checkbox"/> Radiation <input type="checkbox"/> Scaffold Erection
<input type="checkbox"/> Blasting/Explosives <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Tower Rescue						
Standard PPE Required: safety-toed footwear w/6" upper & defined heel, shirt w/ 4" sleeve, long pants, safety glasses w/ side shields, hardhat						
Additional job/task specific PPE required? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, indicate below						
List the types of Personal Protective Equipment being used in the spaces below.						
Fall Protection		Examples of Additional PPE				
Eye/Head/Face		Full Body Harness	Welding hood	Chem. Resistant Clothes		
Respirator		SA/SR Lanyard	Gripping Gloves	Coveralls		
Footwear		Pole Climbing	Driving Gloves	FR Clothing		
Hand		Roof Clamps	Welding Gloves	Rain Coat		
Special Clothing		Life Lines	Cryogenic Gloves	Wind Resistant		
Other/ Additional		Guardrails	Electric Gloves	Cooling Vest		
		Barricades	Arc Flash PPE	Reflective Vest		
		Hole covers	Ice Cleats	FRC Fire		
		Mono Goggles	Metatarsal Guards	FRC Electric		
		Full Face Shield	Leather Gloves	FRC Welding		
		Chemical Goggles	Chem. Resistant Gloves	Heat Resistant Gloves		
		Welding/Cutting Lenses	Cut Resistant Gloves	Dielectric Boots		





**Safety Form C-9
Certification of Training**



Training Requirements from the OSHA Standards

Standard Training Topic	29 CFR 1926	29 CFR 1910
Emergency Plans & Fire Prevention Plans	.35	.38
Powered Platforms		.66
Ionizing - Non-ionizing	.53 & .54	.11
Hazard Communication	.59	.1200
Lead	.62	.1025
Process Safety Management	.64	.119
Hearing Protection / Conservation	.101	.95
Respiratory Protection	.103	.134
Fire Extinguisher	.150	.157
PPE	.28 & .95	.132
Signaling	.201	
Rigging	.251	
Powder Actuated Hand Tools	.302	
Welding & Cutting (Gas & Arc)	.350 - .351	.252 - 255
Fire Prevention	.352	
GFCI	.404	.268
Lockout / Tagout	.417	.147
Scaffolds	.454	
Confined Space Entry		.146
Fall Protection	.503	
Cranes & Derricks	.550 - .556	
Material Hoists, Personnel Hoists, & Elevators	.552	
Site Clearing	.604	
Excavations and Trenching	.651	
Underground Construction	.800	
Compressed Air / Decompression	.803	
Demolition	.850 - .859	
Blasting & Explosives	.900 - .909	.109
T&D; High voltage	.950 - .957	.269
Ladders	.1053 & .1060	
Commercial Diving	.1076	0.41
HAZWOPER	.65	.120
Asbestos	.1101	.1001
Other Hazardous Chemicals	.1102 - .1152	.1003 - 1050
Forklifts		.178 - .179
First Aid	.50	.151
Logging		.266
Bloodborne Pathogens		.1030
Derrick Trucks		.268
Powered Industrial Vehicles (Rollers, compactors, front-end loaders, bulldozers, earthmoving equipment: scrapers, loaders, crawler or wheel tractors, bulldozers, off-highway trucks, graders, agricultural & industrial tractors, forklifts and similar equipment.)	.602	.178

Appendix E – Safety Form C-8 “Project Orientation Training”

		Safety Form C-8 Project Orientation Training						
Project Name:		Project Number:		Date:				
Location:		Company:						
Submitted By:		Worker Trained (print):						
Instructions: Please Check the Appropriate Box in Front of Each Topic as the Topic is Covered by the Trainer.								
<input type="checkbox"/>	Safety Commitment and Safety & Health Goals							
<input type="checkbox"/>	Reporting, Surveillance, and Correcting of Hazardous Conditions / Unsafe Acts / Work Practices / Stop Work Authority							
<input type="checkbox"/>	Project Disciplinary Procedures - Violation Notification Policy and Consequences for Unsafe Acts, Unsafe Behaviors, or Creation of Unsafe Conditions							
<input type="checkbox"/>	Drug Free workplace: Substance & Alcohol Abuse Policy & Testing							
<input type="checkbox"/>	Site Emergency Action / Fire Prevention / Evacuation Plans & Emergency Response Procedures (Form E-1)							
<input type="checkbox"/>	Reporting of ALL Incidents / Accidents/Injuries / Near Misses							
<input type="checkbox"/>	Project Safety & Health Coordination and Submittal Requirements							
<input type="checkbox"/>	Inspections – Forms / Reports: Types & Frequencies: JHA, PTA, mobile equipment, vehicles, PPE etc.							
<input type="checkbox"/>	Project & Site-Specific Safety and Health Procedures / Rules:							
Hazards								
Yes	No		Yes	No		Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	Compressed Air & Gases	<input type="checkbox"/>	<input type="checkbox"/>	Electrical Safety
<input type="checkbox"/>	<input type="checkbox"/>	Ladders & Stairs	<input type="checkbox"/>	<input type="checkbox"/>	Cranes, Derricks & Hoists	<input type="checkbox"/>	<input type="checkbox"/>	LOTO
<input type="checkbox"/>	<input type="checkbox"/>	Scaffolds & Safe Supports	<input type="checkbox"/>	<input type="checkbox"/>	Mobile Equipment	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous Materials
<input type="checkbox"/>	<input type="checkbox"/>	Aerial Lifts & Platforms	<input type="checkbox"/>	<input type="checkbox"/>	Material Handling	<input type="checkbox"/>	<input type="checkbox"/>	Flam. & Comb. Liquids
<input type="checkbox"/>	<input type="checkbox"/>	Confined Spaces	<input type="checkbox"/>	<input type="checkbox"/>	Vehicles	<input type="checkbox"/>	<input type="checkbox"/>	Silica Dust
<input type="checkbox"/>	<input type="checkbox"/>	Noise Exposure / HCP	<input type="checkbox"/>	<input type="checkbox"/>	Power & Hand Tools	<input type="checkbox"/>	<input type="checkbox"/>	Biological Hazards
<input type="checkbox"/>	<input type="checkbox"/>	Process Safety Management	<input type="checkbox"/>	<input type="checkbox"/>	Hot Work, Welding & Cutting	<input type="checkbox"/>	<input type="checkbox"/>	Severe Weather
<input type="checkbox"/>	<input type="checkbox"/>	HAZWOPER	<input type="checkbox"/>	<input type="checkbox"/>	Demolition	<input type="checkbox"/>	<input type="checkbox"/>	Heat Stress
<input type="checkbox"/>	<input type="checkbox"/>	PPE	<input type="checkbox"/>	<input type="checkbox"/>	Steel Erection	<input type="checkbox"/>	<input type="checkbox"/>	Cold Stress
<input type="checkbox"/>	<input type="checkbox"/>	Exit Routes / Emergencies	<input type="checkbox"/>	<input type="checkbox"/>	Hoisting & Rigging	<input type="checkbox"/>	<input type="checkbox"/>	Working Around Water
<input type="checkbox"/>	<input type="checkbox"/>	Respiratory Protection	<input type="checkbox"/>	<input type="checkbox"/>	Fall Protection	<input type="checkbox"/>	<input type="checkbox"/>	Signage & Barricades
<input type="checkbox"/>	<input type="checkbox"/>	Excavations	<input type="checkbox"/>	<input type="checkbox"/>	Concrete / Masonry	<input type="checkbox"/>	<input type="checkbox"/>	Sanitation & Waste Plan
<input type="checkbox"/>	<input type="checkbox"/>	Fire Protection	<input type="checkbox"/>	<input type="checkbox"/>	Radiation (Non- & Ionizing)	<input type="checkbox"/>	Other (List) _____	
<input type="checkbox"/>	<input type="checkbox"/>	Heaters	<input type="checkbox"/>	<input type="checkbox"/>	Explosives & Blasting	<input type="checkbox"/>		
Competent Person								
<input type="checkbox"/>	<input type="checkbox"/>	Competent Person Requirements & Designation Policies						
Training								
<input type="checkbox"/>	<input type="checkbox"/>	Regulatory required (e.g. fall protection, confined space, LOTO, rigging, equipment operator, etc.), certifications (e.g. riggers, signalman), licenses (e.g. operators)						
Hazard Communication Program								
<input type="checkbox"/>	<input type="checkbox"/>	Right-To-Know Explanation & Question Forum						
<input type="checkbox"/>	<input type="checkbox"/>	SDS Location						
<input type="checkbox"/>	<input type="checkbox"/>	Location and Storage of Products & Hazardous Materials						
Hazardous Energy Control / LOTO								
<input type="checkbox"/>	<input type="checkbox"/>	Lock-Out/Tag-Out Procedures						
<input type="checkbox"/>	<input type="checkbox"/>	Tagging Authority for Placing/Removing						
<input type="checkbox"/>	<input type="checkbox"/>	Permitting System - Records						
<input type="checkbox"/>	<input type="checkbox"/>	Necessary to Have Continued Training Prior to Using Program						
Reminders								
<input type="checkbox"/>	<input type="checkbox"/>	Daily PTA & Weekly Toolbox Meetings						
<input type="checkbox"/>	<input type="checkbox"/>	Daily, Weekly, Monthly, & Annual Inspections						
<input type="checkbox"/>	<input type="checkbox"/>	Viewed Postings: Employee Benefits, Emergency Numbers and Emergency Action Plan						
I understand that compliance with safety policies is mandatory and a condition of employment on this project. I understand that violations of safety and health policies could result in disciplinary action, up to, and including termination.								
Worker's Signature:				Instructor's Signature:				

Appendix F – Hand Protection Reference Guide

Table 9-1 Hand Protection Reference Guide	
ACTIVITY/EXPOSURE	GLOVE TYPE
Light lifting, moving boxes, etc.	Leather or cut-resistant
Handling lumber, steel, rebar, etc.	Leather or cut-resistant
Exposure to sharp edges, glass, box cutters, etc.	Cut resistant
Exposure to open flame or molten metal, etc.	Insulating gloves with gauntlet cuff (welding glove, etc.)
Low Temperature	Insulating gloves
Electrical	Use appropriate PPE for high voltage — NFPA 70E
Chemicals	Refer to SDS/manufacturer recommendations

