Standard Operating Procedure

Heat Stress Management

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HEALTH, SAFETY & ENVIRONMENTAL (HSE) DEPARTMENT

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DOCUMENT CONTROL INFORMATION

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Annual review of this SOP is conducted by the IPS Director of Compliance in conjunction with IPS Executive Management.

Approval

The signatures below certify that this procedure has been reviewed and accepted. They also demonstrate that the signatories are aware of all the requirements contained herein and are committed to ensuring their provision.

	Name	Signature	Position	Date
Prepared by	Babette Burnett	*Babette Burnett*	Safety Director	05.27.2026
Reviewed by	Kris Gray	*Kris Gray*	Executive Director of Petro & Compliance	05.27.2026
Approved by	Kevin Gray	*Kevin Gray*	Chief Executive Officer	05.27.2026

Amendment Record

This procedure is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual additions or omissions is given below:

Page No.	Context	Revision	Date

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1. Purpose

1.1 The purpose of this Heat Stress Management Program is to protect employees of Industrial Power Systems, Inc. from heat-related illnesses, injuries, and reduced productivity caused by exposure to hot work environments. Heat stress occurs when the body is unable to adequately cool itself due to a combination of internal body heat generated through physical work and external environmental heat exposure.

This program establishes procedures for recognizing, evaluating, preventing, and responding to heat stress hazards in the workplace. It also outlines the responsibilities of management and employees in maintaining a safe work environment and reducing the risk of heat-related incidents.

Heat stress may be influenced by several factors, including:

- Air temperature and humidity
- Air movement and radiant heat
- Physical workload and duration of exposure
- Clothing and personal protective equipment (PPE)
- Individual health conditions and physical fitness

Heat exposure can contribute to illnesses such as heat cramps, heat exhaustion, and heat stroke, while also increasing the likelihood of workplace accidents and injuries.

2. Objective

2.1 The objectives of this Heat Stress Management Program are to:

- Prevent heat-related illnesses and injuries among employees and subcontractors.
- Provide employees with training to recognize the signs and symptoms of heat stress.
- Establish safe work practices to minimize heat exposure.
- Ensure proper hydration, acclimatization, and recovery procedures are implemented.
- Define emergency response procedures for heat-related illnesses.
- Ensure compliance with applicable Occupational Safety and Health regulations.
- Promote awareness and accountability for heat stress prevention at all job sites.

3. Scope

3.1 This program applies to all employees, supervisors, superintendents, foremen, subcontractors, and visitors working on or visiting Industrial Power Systems, Inc. job sites or facilities where heat stress hazards may exist.

The program applies to both indoor and outdoor work environments where employees may be exposed to elevated temperatures due to:

- Environmental weather conditions
- Radiant heat sources
- Hot equipment or materials
- Physical exertion
- Use of PPE or specialized protective clothing

This program shall be implemented whenever heat exposure conditions create a potential risk to employee health and safety.

4. Authority and Responsibilities

4.1 Superintendent/Foreman Responsibilities

Superintendents and foremen are responsible for:

- Attending training on the Heat Stress Management Program requirements.
- Understanding the hazards, warning signs, and symptoms of heat stress.
- Implementing and enforcing all heat stress procedures and job-specific controls.
- Evaluating job site conditions for heat-related hazards.
- Ensuring additional controls are implemented when temperatures reach 80°F or when heat advisories are issued by the National Weather Service.
- Encouraging proper hydration and rest breaks.
- Monitoring employees for signs and symptoms of heat-related illness.
- Completing an Employee Incident Report for any heat-related illness or injury.
- Ensuring compliance with all applicable safety and regulatory requirements.
- Ensuring required PPE is properly used.
- Reporting hazardous conditions to the Director of Health and Safety.
- Providing daily oversight of heat stress prevention activities.
- Review heat-related hazards during daily JSA review meetings when temperatures are expected to exceed 80°F.
- Ensure emergency communication methods are available at all job sites and that employees know the physical address or GPS location needed in case of an emergency.

4.2 Affected Employee Responsibilities

Employees are responsible for:

- Attending required heat stress training.
- Understanding the hazards, warning signs, and symptoms of heat stress.
- Following all heat stress prevention procedures and job-specific requirements.
- Complying with applicable safety and regulatory requirements.
- Properly wearing and using required PPE.
- Reporting hazardous conditions to their supervisor immediately.
- Reporting all work-related injuries or illnesses promptly.
- Seeking medical attention when symptoms of heat illness occur.
- Informing supervision of any medical conditions or medications that may increase susceptibility to heat stress.
- Monitoring coworkers for signs of heat-related illness and participating in the buddy system.

4.3 Director of Health and Safety Responsibilities

The Director of Health and Safety is responsible for:

- Developing, implementing, and annually reviewing the Heat Stress Management Program.
- Conducting heat stress hazard assessments upon request.
- Providing recommendations for heat stress risk reduction and control measures.
- Assisting supervisors and employees with heat stress prevention and response procedures.
- Ensuring training requirements are maintained and documented.

4.4 Subcontractors

Subcontractors are responsible for:

- Providing equivalent heat illness prevention procedures.
- Complying with this program.
- Being trained in their companies' heat standard operating procedures.
- Supplying adequate potable water to their employees.

5. Overview

Heat stress prevention requires a combination of hazard recognition, environmental monitoring, employee training, and effective work practices. Supervisors shall evaluate environmental and workplace conditions that may contribute to heat stress, including:

- Radiant heat exposure (e.g., asphalt, roofing materials, rock surfaces).
- Air movement and wind conditions.
- Conductive heat from equipment or machinery.
- Workload intensity and duration.
- Use of respirators or specialized PPE.

6. Procedures

6.1 Acclimatization

Employees who are new to hot environments or returning after an absence must gradually increase exposure to heat to allow the body to adapt safely.

- New employees shall work no more than 20% of their shift at full intensity in hot conditions on the first day.
- Exposure time may increase by no more than 20% per day until acclimatization is achieved.
- Employees returning after a one-week absence shall follow an acclimatization schedule with gradual increases in exposure.
- Full acclimatization generally requires 14 days depending on individual factors and environmental conditions.

6.2 Work Practices

To reduce the risk of heat stress, the following practices shall be implemented:

- Use the buddy system to monitor employees for signs of heat illness.

- Reduce strenuous physical activity when possible.
- Rotate employees or provide additional workers for demanding tasks.
- Schedule heavy work during cooler parts of the day.
- Provide shade or air-conditioned recovery areas.
- Implement work/rest schedules appropriate for environmental conditions.
- Monitor employees who may be at increased risk of heat illness.

6.3 Heat Monitoring

- Site supervisor shall be responsible for monitoring heat conditions throughout the workday and ensuring appropriate protective measures are implemented.
- Heat conditions shall be monitored daily before work begins and periodically throughout the shift.
- Monitoring will be conducted using Wet Bulb Globe Temperature (WBGT) meter or National Weather Service heat index data.
- Actual temperature and heat index readings must be recorded twice per day on the JSA, if working outside or in a high heat area, before each shift and at midday.
- Heat conditions shall be reassessed whenever weather conditions change, work activities increase in intensity, employees report symptoms of heat stress, or when work areas with different environmental conditions are entered.

6.4 High Heat Trigger Levels and Required Actions

Heat Index	Required Actions
80-89°F	Water, buddy system, supervisor observations
90-99°F	Mandatory shade breaks every 2 hours, active monitoring
100-104°F	15-minute cool-down every hour
105°F+	Evaluate postponement, rescheduling, additional staffing, continuous monitoring

6.5 Drinking Water Requirements

Cool drinking water shall be readily available at all job sites and facilities.

- A minimum of one quart of water per employee per hour shall be available.
- Employees shall be encouraged to drink at least one cup of water every 20 minutes, regardless of thirst.
- Water shall be accessible at offices, sheet metal, pipe fabrication, shop, and active job sites.

6.6 Heat Related Illness Response

- Move employee to a shaded or cooled area.
- Remove unnecessary PPE.
- Provide cool water if conscious.

- Begin active cooling measures.
- Call 911 immediately if symptoms indicate heat stroke.
- Never leave the employee alone.
- Notify supervision and complete incident documentation.

6.7 Training Requirements

- Upon hire or assignment to a construction project.
- Prior to the summer season or anticipated heat exposure.
- Refresher training shall be conducted annually, whenever procedures change, following a heat-related incident or near miss and when observations indicate inadequate employee understanding.
- Training shall include, but not limited to, heat stress causes, heat exhaustion, heat stroke, hydration practices, acclimatization, emergency procedures and employee reporting requirements.

6.8 Recordkeeping

The following records shall be maintained in accordance with company records retention requirements:

- Heat stress training documentation.
- Heat-related illness and incident reports.
- Daily heat monitoring and assessment records documented on JSAs.
- Acclimatization records for new and returning employees.
- Any corrective actions resulting from heat-related incidents, inspections, or hazard assessments.

7. Related Forms (Links to Related Controlled Documents)

Document	Document Number
7.1 JSA Form	
7.2 Heat Stress Training Sign In Sheet	
7.3 Incident Reporting Template	
7.4 Acclimatization Record Form	