Written Heat Illness Prevention Plan for Indoor Places of Employment

California employers must protect their workers from the hazards of excessive heat exposure. California Code of Regulations, Title 8 (CCR T8), section 3395 addresses outdoor workplaces, and section 3396 addresses indoor workplaces. Depending on the circumstances, employers must develop written worker heat illness prevention procedures that address one or both types of workplaces.

These sample procedures have been created to assist employers in establishing their own heat illness prevention procedures for indoor and outdoor workplaces. They are not intended to supersede or replace the application of any other Title 8 sections, particularly section 3203, which requires an employer to establish, implement, and maintain an effective Injury and Illness Prevention Program (IIPP). You may:

- Integrate your heat illness prevention procedures into your IIPP.
- Develop separate indoor and outdoor workplace procedures by using this program.

Use of this program does not guarantee compliance with sections 3395 or 3396 and does not shield an employer from being cited for violations of those sections.

You must also be aware that other standards may apply to heat illness prevention, such as the construction, agriculture, and general industry requirements to provide drinking water, first aid, and emergency response.

Note: These procedures describe the minimum essential heat illness prevention steps applicable to most outdoor and indoor work settings. In work environments where there is a higher risk for heat illness (e.g., during a heat wave or other severe working or environmental conditions), you must exercise greater caution and employ protective measures as needed to protect workers.

To effectively establish your procedures, carefully review the requirements of sections 3395 and/or 3396, along with the instructions provided for each of the elements, then develop written procedures applicable to your workplace. The Heat Illness Prevention Plan must be written in English and the language understood by the majority of the workers and must be available at the worksite. Effectively implement and maintain the heat illness prevention procedures you develop, including training workers and supervisors on your company procedures. Be sure to follow up to ensure your procedures are fulfilled.

To tailor these procedures to your work activities, evaluate and consider the specific conditions present at your site such as:

- Whether workers work indoors, outdoors, or both.
- The number of workers.
- The length of the work-shift.
- The ambient temperatures, heat index, and additional sources of heat workers are exposed to.
- The fact that personal protective equipment may increase the body's heat burden.

These sample procedures do not include every workplace scenario, so it is essential that you evaluate all conditions found in your individual workplace that are likely to cause a heat illness.

Cal/OSHA Publications Unit

Heat Illness Prevention Plan for
TORO ENTERPRISES, INC

Responsibility

Frank Borjon has overall authority and responsibility for implementing the provisions of this program in our workplace. In addition, all managers and supervisors are responsible for implementing and maintaining the Heat Illness Prevention Program in their assigned work areas and for ensuring workers receive answers to questions about the procedures in a language they understand.

All workers are responsible for using safe work practices; following all directives, policies, and procedures; and assisting in maintaining a safe work environment.

This plan is in English and *Spanish.* It is maintained at our worksite at *2101 Ventura Blvd, Oxnard, CA 93036* and can be accessed electronically at M:\Safety\Toro Safety Book 03-25. It is available to workers or their representatives upon request.

Procedures for the Provision of Water:

1. Fresh, pure, suitably cool water will be provided to workers free of charge. *Water will be provided through a continuously supplied and filtered water fountain.*

2. Supervisors will ensure that the water is fresh, pure, and suitably cool. Supervisors will ensure water will be fresh by way of a filtration system designed to filter chlorine/chloramine, sediment, silt and debris. Supervisor will visually examine the water at the start of a shift and throughout the day, as needed. To ensure water is suitably cold, supervisors will allow water to flow on the skin for at least 30 seconds. During hot weather or high indoor heat work conditions, the water will be cooler than the ambient temperature, but not so cool as to cause discomfort. Ice will also be provided by way of industrial ice makers to ensure water is cool in high indoor heat work conditions.

3. The available water will be in the upstairs break room and in the breezeway between the mechanics shop and the storage garage.

4. Workers will be reminded and encouraged to frequently consume small quantities of water throughout their shift. The supervisor will encourage frequent water breaks every 20-30 minutes specifically for water consumption. To assist in reinforcing the habit, reminders and signage about the importance of consistent hydration can be posted.

5. All water containers will be kept in a sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used, they must be approved for potable drinking water systems, as shown on the manufacturer's label.

6. For outdoor work locations, when the temperature equals or exceeds 95 degrees Fahrenheit, or during a heat wave, pre-shift meetings will be conducted before the commencement of work to both encourage workers to drink plenty of water and to remind workers of their right to take a cool-down rest when necessary. Additionally, the number of water breaks will increase. Supervisors/foremen will lead by example and remind workers throughout the work shift to drink water.

Procedures for Access to Cool-Down Areas for **Indoor Places of Employment**

1. Cool-down areas(s) will be located in the breakroom that can be access from the shops main floor. The temperature in the indoor cool-down areas will be maintained at less than 82 degrees Fahrenheit by way of programmable thermostats which allow users to set temperature thresholds which automatically turn a rooms HVAC systems on or off to maintain desired temperatures.

2. The cool-down area(s) will be available at the site to accommodate all workers who are on a break at any point in time and will be large enough so that all workers on break can sit in a normal posture fully in the cool-down area(s) without having to be in physical contact with each other. To ensure this, ample tables and seating have been provided for individuals who choose to take their breaks in the available cool-down area

3. Workers will be informed of the location of the cool-down area(s) and will be encouraged and allowed to take cool-down breaks in the cool-down area(s) whenever they feel they need a break. A worker who takes a preventative cool-down rest break will be monitored and asked if they are experiencing symptoms of heat illness. In no case will the worker be ordered back to work until signs or symptoms of heat illness have abated (see the section on Emergency Response for additional information). If a worker exhibits signs or symptoms of heat illness while on a preventative cool-down rest, then appropriate first aid or emergency response will be provided. Preventative cool-down rest periods will be at least 5 minutes, in addition to the time needed to access the cool-down area.

Procedures for Temperature Assessment for **Indoor Places of Employment**

1. A Thermometer, Heat Stress Monitor or like-kind Temperature Display will be used throughout the workplace to monitor temperature or heat index. Monitoring instruments will be maintained according to manufacturer's recommendations and the instruments used to measure the heat index shall be based on the heat index chart in Appendix A of Section 3396. The locations for the temperature measurements will be:

   A. In the shop above or next two the first aid kit

   B. In the TC/Project Coordinators Operations Room on a thermostat or other temperature measuring device.

   C. In the Shop Operations room on a thermostat or other temperature measuring device.

   D. In the upstairs Main Office Room on a thermostat or other temperature measuring device.

2. The temperature or heat index will be measured and recorded by Frank Borjon. Workers will be actively involved in the planning, conducting, and recording of measurements of temperature or heat index. Site specific procedures for ensuring the participation of workers in the planning, conduction and recording of the temperature or heat index measurement will include:

- Determining a Monitoring Location by identifying key areas where workers spend the most time, especially near heat sources such as: machinery, welding stations, etc.

- Select Measurement Tools by using calibrated thermometers, hygrometers or heat stress monitors to record temperatures, humidity and heat index.

- Set a monitoring frequency such as hourly or shift based routine checks, increased monitoring during extreme weather conditions or event-based checks such as: equipment malfunctions or ventilation failures.

3. Records of the temperature or heat index measurements, whichever value is greater, will be retained for 1 year or until the next measurements are taken, whichever is later, and made available at the 2101 Ventura Blvd, Ventura, CA 93036 to workers or designated representatives upon request. The records will include the date, time, and specific location of all measurements.

4. Initial temperature or heat index measurements shall be taken where workers work and at times during the work shift when worker exposures are expected to be the greatest and when it is suspected to equal or exceed 82 degrees Fahrenheit.

5. Measurements will be taken again when they are reasonably expected to be 10 degrees Fahrenheit or more above the previous measurements where workers work and at times during the work shift when worker exposures are expected to be the greatest.

6. Workers will be actively involved in identifying and evaluating other environmental risk factors for heat illness that may exist in the workplace. This procedure should include:

- **Evaluating worker-specific risk factors**
    - Identify workers wearing heavy, layered or non-breathable PPE such as coveralls or full body harnesses
    - Assess if double layer clothing (coveralls over street clothes) prevents heat dissipation
    - Determine if PPE requirements can be adjusted.
- ***Physical Activity Levels***
    - *Observe whether workers engage in strenuous, repetitive or prolonged physical labor.*

- *Assess if rest breaks are adequate for cooling and adjust as needed.*

- ***Worker Acclimatization***
  - *Identify new or returning workers who may not yet be acclimated to high temperatures*
  - *Evaluate if there is a gradual exposure plan for heat adaptation.*

- ***Assess Workplace Policies and Engineering Controls***
  - *Ensure Shade and Cooling Measures such as airflow and ventilation are sufficient.*
  - *Ensure Hydration by access to cool drinking water and hydration reminders or schedules are in place.*
  - *If applicable, ensure break schedule and work rotations are adjusted for extreme heat conditions. Consider implementing buddy systems for monitoring signs of heat illness.*

Procedures for Control Measures for Indoor Places of Employment

Control measures will be implemented when either of the following occurs:

- Indoor temperature or heat index is 87 degrees Fahrenheit or higher.
- Indoor temperature is 82 degrees Fahrenheit or higher and workers are either:
    - Wearing clothing that restricts heat removal or
    - Working in an area with high radiant heat.

1. Feasible engineering controls will be implemented first to reduce the temperature and heat index to below 87°F (or temperature to below 82°F for workers working in clothing that restricts heat removal or working in high radiant heat areas). Administrative controls will be added if feasible engineering controls are not enough to comply with the standard. If both feasible engineering and administrative controls are not enough to decrease the temperature and minimize the risk of heat illness, then personal heat-protective equipment will be provided.

2. The following engineering controls will be implemented to lower the indoor temperature, heat index, or both to the lowest possible level. These controls help make the work environment cooler or create a barrier between the worker and the heat:

    - *Cooling fans or air conditioning*
    - *Increased natural ventilation, such as open windows and doors when the outdoor temperature or heat index is lower than the indoor temperature and heat index*
    - *Local exhaust ventilation at points of high heat production or moisture (such as exhaust hoods in laundry rooms)*
    - *Insulating/isolating heat sources from workers, or isolating workers from heat source*
    - *Elimination of steam leaks*
    - *Evaporative coolers*
    - *Dehumidifiers*

3. The following administrative controls will be implemented once all feasible engineering controls have been implemented. These controls are modified work practices that can reduce heat exposure by adjusting work procedures, practices, or schedules:

    - *Modify work schedules and activities to times of the day when the temperature is cooler or schedule shorter shifts, especially during heat waves. Heat waves mean any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least 10 degrees Fahrenheit higher than the average high daily temperature in the preceding five days. For newly hired workers and unacclimatized existing workers, gradually increase shift length over the first one to two weeks.*
    - *Require mandatory rest breaks in a cooler environment, such as a shady location or an air-conditioned building. The duration of the rest breaks should increase as heat stress rises.*
    - *Schedule work at cooler periods or times of day, such as early morning or late afternoon.*
    - *Rotate job functions among workers to help minimize exertion and heat exposure. If workers must be in proximity to heat sources, mark them clearly, so they are aware of the hazards.*
    - *Require workers to work in pairs or groups during extreme heat so they can monitor each other for signs of heat illness.*

4. The following personal heat-protective equipment will be provided if feasible engineering controls do not decrease

the temperature enough and administrative controls do not minimize the risk of heat illness. This personal heat-protective equipment consists of special cooling devices that the worker wears on their body that can protect them in hot environments:

- *Water and/or air-cooled garments, cooling vests, jackets, and neck wraps. The cooling source can be reusable ice packs or cooled air connected to an external source.*
- *Cooling Towels and Bandanas*
- *Water Dispensers*
- *Evaporative Coolers*

Procedures for Acclimatization:

Acclimatization is the temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. The body needs time to adapt when temperatures rise suddenly, and a worker risks heat illness by not taking it easy when a heat wave or heat spike strikes, or when starting a new job that exposes the worker to heat to which the worker's body hasn't yet adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. The following are additional protective procedures that will be implemented when conditions result in sudden exposure to heat that workers are not accustomed to.

1. The weather will be monitored daily. The supervisor will be on the lookout for heat waves, heat spikes, or temperatures to which workers haven't been exposed for several weeks or longer.

   New workers and those who have been newly assigned to a high-heat area will be closely observed by the supervisor or designee for the first 14 days. Supervisors or designee *will conduct routine visual checks every 15-30 minutes in extreme heat and require workers to report any discomfort or symptoms immediately.*

2. The intensity of the work will be lessened during a two-week break-in period by using procedures such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early morning or evening). Steps taken to lessen the intensity of the workload for new workers will be documented.

3. For indoor work areas, this 14-day observation period applies when the temperature or heat index equals or exceeds 87 degrees Fahrenheit, or when the temperature or heat index equals or exceeds 82 degrees Fahrenheit when a worker wears clothing that restricts heat removal or when a worker works in a high radiant heat area.

4. Workers and supervisors will be trained in the importance of acclimatization, how it is developed, and how these company procedures address it.

Procedures for Emergency Response:

1. Effective means of bringing emergency services to the worker in need, or the worker in need to emergency services will be ensured by:
    A. *For indoor places of employment, workers and the foreman will be provided a map of the worksite that will allow them to give clear and precise directions to the worksite (e.g., street or road names, distinguishing features, and distances to major roads) to avoid a delay of emergency medical service.*
    B. *The supervisor will designate a worker or workers to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated worker(s) shall be given Class 3 reflective vests or flashlights to direct emergency personnel to the sick worker's location, which may not be visible from the road or highway.*

2. Effective communication will be ensured by *voice, direct observation, mandatory buddy system, or electronic means, such as cell phone, text, or two-way radio,* and will be maintained so that workers can contact a supervisor when necessary. If the supervisor is unable to be near the workers (to observe them or communicate with them), then *cell phone, text, email or two-way radio* may be used for this purpose.

3. Appropriately trained and equipped personnel will be made available at the site to render first aid. *Toro Enterprises will provide appropriate personnel or appropriate training to equip personnel to provide first aid.*

4. Determinations will be made if there is a language barrier present in the workplace that might inhibit the calling of emergency services. The following will be the measures taken to ensure emergency services can be promptly called *such as designating English-speaking foremen, supervisors, or workers. Also consider situations where temporary service workers may introduce language barriers that are not normally present in your workplace.*

5. To ensure that emergency medical services can be called, all supervisors will have access to or carry communication devices, such as *cell phone or landline phones.* These communication devices will be checked prior to each shift to ensure that they are functional.

6. When a worker shows signs or symptoms of severe heat illness, emergency medical services will be called, and steps will immediately be taken to keep the stricken worker cool and comfortable to prevent the progression to more serious illness. Under no circumstances will the affected worker be left unattended.

7. During a heat wave, heat spiking, or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.

8. Workers and supervisors will be trained in these written procedures for emergency response.

Procedures for Handling a Sick Worker:

1. When a worker displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will evaluate the sick worker and determine whether resting in the *closest breakroom or air-conditioned room* and drinking water (NOT ICE WATER) will suffice or if emergency service providers will need to be called. A sick worker will not be left alone in the *cool down area,* as their condition could take a turn for the worse.

2. When a worker displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be immediately called by *a party designated by the superintendent or acting supervisor.*

3. Emergency service providers will be called immediately if a worker displays signs or symptoms of severe heat illness (e.g., decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), does not look okay, or does not get better after drinking cool water and resting in the shade. While the ambulance is en-route, first aid will be initiated (e.g., cool the worker by placing the worker in the shade, removing excess layers of clothing, placing ice packs in the armpits and groin area, and fan the victim). We will not let a sick worker go home, because even if they start to feel better, their condition could worsen, and they may die before reaching a hospital.

4. If a worker displays signs or symptoms of severe heat illness (e.g., decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face) emergency service providers will be called, the signs and symptoms of the victim will be communicated to them, and an ambulance will be requested.

Procedures for Worker and Supervisor Training:

To be effective, training must be understood by workers. Therefore, it must be given in a language and vocabulary the workers understand. Training records will be maintained and will include the date of the training, who performed the training, who attended the training, and the subject(s) covered. Training records will be maintained *online at HCSS.com*

1. Supervisors will be trained prior to being assigned to supervise other workers. Training will include this company's written procedures and the steps supervisors will follow when workers exhibit symptoms consistent with heat illness.

2. Supervisors and workers will be trained as it is *Toro Enterprises'* responsibility to provide water, access to cool-down areas or shade, preventative cool-down rests, and first aid, as well as the workers' right to exercise their rights under this standard without retaliation.

3. Supervisors and workers will be trained in appropriate first aid and/or emergency response to different types of heat illness and made aware that heat illness may progress quickly from mild signs and symptoms to a serious, life-threatening illness.

4. Supervisors will be trained in how to track the weather at the job site (by monitoring predicted temperature or heat index highs and periodically using a thermometer). Supervisors will be instructed on how weather information will be used to modify work schedules, increase the amount of water and rest breaks, or cease work early if necessary.

5. All workers and supervisors will be trained prior to working. Training will include all aspects of implementing this company's written procedures, including access to sufficient water and *shade or cool-down area(s) designated by the superintendent or foreman,* cool down rests, high-heat procedures, emergency response procedures, control measures, importance of frequent consumption of water, different types of heat illness, common signs and symptoms of heat illness, and acclimatization procedures. Workers and supervisors will also be trained on the environmental and personal risk factors of heat illness, as well as the burden of heat load on the body caused by exertion, clothing, and personal protective equipment. The importance of immediately reporting signs and symptoms of heat illness will be especially emphasized.

6. In addition to initial training, workers will be retrained annually.

7. Workers will be trained on the steps for contacting emergency medical services, including how they are to proceed when there are non-English speaking workers, how clear and precise directions to the site will be provided, how to transport ill workers to a point where they can be reached by an emergency responder, and the importance of making visual contact with emergency responders at the nearest road or landmark to direct them to their worksite, if necessary.

8. New workers will be assigned a “buddy,” or experienced co-worker, to ensure that they understand the training and follow company procedures.