



OSHA REGIONAL NOTICE

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 2 02-00-027 | **EFFECTIVE DATE:** October 1, 2018

SUBJECT: Regional Emphasis Program for Heat Illnesses

REGIONAL IDENTIFIER: Region VI

ABSTRACT

- Purpose:** This Notice renews a Regional Emphasis Program (REP) for outdoor heat-related health hazards.
- Scope:** This Notice applies to all worksites in Arkansas, Louisiana, Oklahoma, and Texas, and those worksites in New Mexico that are under Federal OSHA jurisdiction.
- References:**
OSHA Instruction CPL 04-00-001 (CPL 2-0.102A)
OSHA Instruction CPL 02-00-160 (CPL 2.148)
OSHA Instruction CPL 02-00-025 (CPL 2.25I)
OSHA Instruction CPL 02-00-051 (CPL 2-0.51J)
OSHA Instruction TED 01-00-015 (TED 1-0.15A)
- Cancellations:** Region VI Regional Notice CPL 2 02-00-027 dated October 1, 2016, Regional Emphasis Program for Heat Illnesses.
- State Impact:** Region VI 21(d) Consultation Project Offices in Arkansas, Louisiana, Oklahoma, New Mexico and Texas will provide outreach, consultation services, and training to affected employers as requested.
- Action Offices:**
Region VI Area and District Offices
Region VI Consultation Project Offices
Dallas Regional Office
- Information Office:** New Mexico Occupational Health and Safety Bureau
- Originating Office:** Dallas Regional Office
- Contact:** Assistant Regional Administrator for Enforcement Programs
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Dallas, Texas 75202-5007
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By and Under the Authority of

ERIC S. HARBIN
Acting Regional Administrator

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I. Purpose. This notice establishes and implements a regional emphasis program (REP) for the purpose of conducting heat illness inspections of outdoor work activities on days when the National Weather Service (NWS) issues a “Heat Advisory”. The majority of NWS offices in Region 6 issue advisories when the predicted daily maximum temperature is 105°F (Fahrenheit) or greater for two consecutive days and the night time minimum temperature is at least 75°F. This Notice supports OSHA’s Campaign to Prevent Heat Illness in Outdoor Workers.

II. Scope. This Notice applies to all Area Offices in Region VI and those worksites in New Mexico that are under Federal Jurisdiction.

III. References.

- A. OSHA Instruction CPL 04-00-001 (CPL 2-0.102A), Procedures for Approval of Local Emphasis Programs (“LEPs”), November 10, 1999, or current update.
- B. OSHA Instruction CPL 02-00-160 (CPL 2.148), Field Operations Manual (FOM), August 2, 2016, or current update.
- C. OSHA Instruction CPL 02-00-025 (CPL 2.25I), Scheduling System for Programmed Inspections, January 4, 1995, or current update.
- D. OSHA Instruction CPL 02-00-051 (CPL 02-0.51J), Enforcement Exemptions and Limitations under the Appropriations Act, May 28, 2005, or current update.
- E. Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environment, DHHS (NIOSH) Publication Number 2016-106, February 2016.
- F. OSHA Directive TED 01-00-015 [TED 1-0.15A], OSHA Technical Manual – Section III, Chapter 4 – Heat Stress, (September 15, 2017).
- G. OSHA Safety and Health Topic Page “ Occupational Heat Exposure” https://www.osha.gov/SLTC/heatstress/industry_resources.html
- H. OSHA’s Heat Illness Prevention Campaign <https://www.osha.gov/heat/>
- I. OSHA-NIOSH Heat Safety Tool – Smartphone Application

IV. Expiration. This Notice expires on September 30, 2019, but may be renewed as necessary.

V. Background.

According to BLS data from the Injuries, Illnesses, and Fatalities program, high temperatures can be dangerous to people at work and can lead to injuries, illnesses, and even death. Exposure to environmental heat led to 37 work-related deaths and 2,830 nonfatal occupational injuries and illnesses involving days away from work in 2015.

Thirty-three of the 37 fatal work injuries caused by exposure to environmental heat occurred in the summer months of June through September. Texas and California had the highest number of nonfatal injuries and illnesses with days away from work in 2015. (Updated in BLS, August 30, 2017)
<https://www.bls.gov/pub/ted/2017/work-injuries-in-the-heat-in-2015.html>

CDC has found that heat stress, an environmental and occupational hazard is associated with heat related illnesses such as heat stroke which can lead to death. NIOSH has published recommended occupational exposure limits for heat stress. These limits are consistent with American Conference of Governmental Industrial Hygienists. NIOSH studies heat-related fatalities of workers in the United States during 1992 through 2006 [CDC 2008]. During this 15-year period, a total of 423 worker deaths from exposure to environment heat were reported. In 2011, the U.S. Department of Labor stated that 2 of every 1,000 workers are at risk for heat stress and that some occupations-such as logging, firefighting, agriculture, and construction-are at a greater than average risk [U.S. Department of Labor 2011] <https://www.cdc.gov/niosh/docs/wp-solutions/2013-143.pdf>

The National Weather Service asserts (1) that heat is the number one weather-related killer in the United States, resulting in hundreds of fatalities each year and (2) on average, excessive heat claims more lives each year than floods, lightning, tornadoes and hurricanes combined.

The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) is the U.S. Government Agency responsible for weather, water and climate forecasts and warnings. One activity of the NWS is to issue alerts for excessive heat. These heat advisories are broadcast on NOAA Weather Radio and on local radio and television stations. These alerts are issued by most National Weather Service offices when the predicted daily maximum temperature will be 105°F or greater for two consecutive days or heat index more than 115°F for any period of time.

The National Institute of Occupational Safety and Health (NIOSH) Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments. DHHS (NIOSH) Publication Number 2016-106, February 2016, recommends environmental limits for physical work at which engineering controls, preventative work and hygienic practices, and administrative or other control procedures should be implemented in order to reduce the risk of heat illnesses.

During FY 2018 Region VI conducted 105 inspections under this REP with seven reported heat related fatalities and no inspections with significant enforcement actions. These inspections resulted in the issuance of 158 violations with penalties totaling \$585,384. The most frequently cited standards during inspections under this program were related to hazards associated with falls, reporting fatalities, scaffold platforms, and unprotected sides and edges.

VI. Objectives.

- A. The purpose of this REP is to prevent hot environmental temperatures from adversely affecting employees working outdoors. This REP is targeted to keep employees from developing heat cramps, heat exhaustion, and heat stroke. Evidence from the Centers for

Disease Control, American Red Cross and the National Institute of Occupational Safety and Health (NIOSH) show that hot environmental temperatures cause hundreds of employees working outdoors to experience heat related illnesses and deaths annually.

Most NWS offices in Region VI issue “heat advisories” on days when they determine that the predicted daily maximum temperature will be 105°F or greater for two consecutive days and the night time minimum temperature or heat index more than 115°F for any period of time.

Excessive Heat Watch

Issued by the National Weather Service when heat indices in excess of 105°F (41°C) during the day combined with nighttime low temperatures of 80°F (27°C) or higher are forecast to occur for two consecutive days. Heat watches are issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased.

Excessive Heat Warning

Issued within 12 hours of the onset of the following criteria: heat index of at least 105°F for more than 3 hours per day for 2 consecutive days, or heat index more than 115°F for any period of time.

Excessive Heat

Excessive heat occurs from a combination of high temperatures (significantly above normal) and high humidity’s. At certain levels, the human body cannot maintain proper internal temperatures and may experience heat stroke.

The “Heat Index” (HI) or the “Apparent Temperature” is an accurate measure of how hot it really feels when the Relative Humidity (RH) is added to the actual air temperature.

To prevent these heat related illnesses, OSHA will utilize heat advisories from the NWS to identify dangerous outdoor conditions and make sure employers take appropriate precautions to address the associated hazards.

These heat illness precautions include: (1) training employees on the hazards of hot environmental temperatures, (2) making appropriate first aid available, (3) having drinking water available, and (4) having made provisions for prompt medical attention if a heat related illness occurs.

This notice is provided to address the unsafe working conditions created by hot environmental temperatures and inappropriate safety precautions.

VII. Action. The Area Director will ensure that all compliance staff are familiar with the contents of this notice and that the inspection guidelines and procedures are followed.

VIII. Inspection Process.

A. Procedures: Each NWS office establishes the specific criteria it will use for issuing heat advisories. Since the temperature criteria can differ from one NWS office to another, OSHA must utilize the NWS website www.weather.gov to determine if weather advisories have been issued within an area office’s jurisdiction.

On days where the National Weather Service issues a heat advisory in an area office's jurisdiction; Area Directors will instruct CSHOs to be alert during their travels throughout the Area Office's jurisdiction for job sites where employees are working outdoors for extended periods of time. Upon finding such a work place the CSHO will communicate with the Area Director or Supervisor to determine: (1) whether the identified job site or contractor has been inspected within the last 30 days and (2) whether the employer has been inspected three (3) or more times under this REP within the last 90 days. If the jobsite or contractor has been inspected within the above time frames, the Area Director or Supervisor will direct the CSHO not to conduct an inspection.

Otherwise, the CSHO will conduct a limited scope inspection of the outdoor activity and ensure: (1) employees have been trained on the hazards of a hot environment, (2) drinking water and first aid supplies are available and (3) there are provisions for receiving prompt medical attention. If other "plain view" hazards are observed on the job site, the CSHO will include them in the limited scope inspection.

Note: The CSHO will document in the case file that on the day of the inspection, the NWS issued a heat advisory for the geographical area of the inspection site.

- B. Exemptions and Limitations: Before initiating enforcement activities, the CSHO will determine if an inspection is prohibited through OSHA Instruction CPL 02-00-051, "Enforcement Exemptions and Limitations under the Appropriations Act".
- C. Interface with other inspection activity: Follow-ups, referrals, complaints, fatalities and catastrophes will still be inspected under procedures outlined in the FOM.
- D. Basis of Inspection: Whenever an inspection is begun under this REP, the CSHO will include in the case file narrative a description of the circumstances which resulted in discovery of the work activity that was the basis of the inspection.
- E. Size of Employer: Establishments with ten or fewer employees will be included in this program because of the insidious nature of high environmental temperatures. Safety violations discovered under this program will be addressed in accordance with CPL 02-00-051 (CPL 2-0.51J) "Enforcement Exemptions and Limitations under the Appropriations Act."
- F. VPP and Partnership Sites: If an employer and/or contractor are a Voluntary Protection Program (VPP) employer or have passed an annual OSHA verification inspection, the terms of the VPP and/or partnership agreement will be followed. A list of current partnership sites within the area office jurisdiction will be maintained and made available for CSHO review.
- G. Scope of REP Inspections: Inspections under this emphasis program will focus on all outdoor job activities that occur on days where the NWS issues a heat advisory for the geographical area. Other apparent health and safety hazards observed by the CSHO will be evaluated; if necessary, a referral will be made. If the CSHO's evaluation indicates a more comprehensive inspection should be completed at the worksite, they will request authority to expand the inspection from the Area Director or the Assistant Area

Director. In determining whether to approve the expansion, the Area Director or Assistant Area Director will follow the FOM and current agency policy. The CSHO will evaluate all on-site employers through inspection and observation, which may include photographs, video footage, measurements, and interviews of management and employees.

- H. Citations: Citations for violations will be issued in accordance with the FOM, Chapters V, VI, and VII.
- I. Inspection Resources: All OSHA personnel participating in this REP must be familiar with the policies and procedures described in this notice.
- J. CSHO Personal Protective Equipment (PPE): CSHOs shall use personal protective equipment suitable for general industry or construction inspections.

IX. Recording in OIS.

- A. Enforcement Inspections: Enforcement inspections completed under this initiative will be coded:

In OIS in the Inspection Type sub tab:

- 1. Initiating Type will be coded “Programmed Planned” with the following exception. Any inspections conducted as a result of a complaint, referral, or fatality/catastrophe will be coded as the appropriate “unprogrammed” activity.
- 2. Local Emphasis Program will be coded **HOTDAYS** for all programmed and unprogrammed inspections.
- 3. Strategic Plan Activity will be coded with any strategic plan codes applicable to the current inspection.
- 4. Additional Codes, will be coded to indicate the industry type as follows:

<u>Type</u>	<u>ID</u>	<u>Value</u>	
N	02	HEATCON	(construction)
N	02	HEATGI	(general industry)
N	02	HEATMI	(maritime)
N	02	HEATAG	(agriculture)

- B. Enforcement Interventions: Enforcement Interventions completed under this initiative, including partnerships, alliances, Voluntary Protection Programs, and other interventions, will be coded:

In OIS in the Task sub tab, Task Details, Emphasis Areas as follows:

- 1. Local Emphasis Programs will be coded **HOTDAYS**.

2. Strategic Emphasis Areas will be coded with any strategic plan codes applicable to the current inspection.
 3. Other Emphasis Areas will include any applicable additional codes and the codes specific to the construction, general industry, maritime or agriculture activity covered by the inspection per IX.A.4.
- C. Consultation Visits: Consultation Visits completed under this initiative will be coded:
1. In OIS on the Request Form CONS-20:
 - a. Local Emphasis will be coded **HOTDAYS**.
 - b. Field 18 will include any applicable additional codes and the codes specific to the construction, general industry, maritime or agriculture activity covered by the inspection per IX.A.4.
 2. In OIS on the Visit Form CONS-30:
 - a. Local Emphasis will be code d **HOTDAYS**.
 - b. Field 22 will include any applicable additional codes and the codes specific to the construction, general industry, maritime or agriculture activity covered by the inspection per IX.A.4.
- D. Consultation Interventions: Consultation Interventions completed under this initiative will be coded:
- In OIS on the Consultation Intervention Form CONS-66:
1. Local Emphasis will be coded **HOTDAYS**.
 2. Field 15 will include any applicable additional codes and the codes specific to the construction, general industry, maritime or agriculture activity covered by the inspection per IX.A.4.
- E. Area Offices, Consultation Projects, and the Regional Office shall periodically check their OIS databases to verify accuracy of the data for the initiative.
- X. **Outreach.**

All REPS must contain an outreach component that must be executed prior to the initiation of the enforcement program. The method of outreach is at the Area Director's discretion and can consist of one or more of the following components.

1. Broadcast mail-outs or program information.
2. Stakeholder meetings.
3. Targeted training sessions.
4. Presentations to the affected group(s).

The outreach component selected should be conducted prior to the start of the inspection portion of the REP. The timing of this should be sufficient to insure that employers have been provided fair notice of the program and opportunities to achieve voluntary compliance. These outreach efforts should be coordinated with or include the consultation program for that area.

XI. Partnerships and Alliances.

In the event outreach efforts result in interest for developing an alliance or partnership, the Area Director will insure that these efforts conform to current National and Regional Policy.

XII. Evaluation.

The regional office will evaluate the impact of the REP at the conclusion of the fiscal year. Information and data from OIS along with input from the Area Directors will be used in the evaluation. Elements to be considered in the evaluation are contained in OSHA Instruction CPL 04-00-001.

Appendix A - First Aid for Heat Stress

The NIOSH website: <http://198.246.98.21/niosh/topics/heatstress/> provided the reference information below.

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

Symptoms of heat rash include:

- Heat rash looks like a red cluster of pimples or small blisters.
- It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

Workers experiencing heat rash should:

- Try to work in a cooler, less humid environment when possible.
- Keep the affected area dry.
- Dusting powder may be used to increase comfort.

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 causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Symptoms of heat cramps include:

Muscle pain or spasms usually in the abdomen, arms, or legs.

Workers with heat cramps should:

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous work for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.
- Seek medical attention if any of the following apply:
 - The worker has heart problems.
 - The worker is on a low-sodium diet.
 - The cramps do not subside within one hour.

Heat Syncope is a fainting (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.

Symptoms of heat syncope include:

- Light-headedness
- Dizziness
- Fainting

Workers with heat syncope should:

- Sit or lie down in a cool place when they begin to feel symptoms.
Slowly drink water, clear juice, or a sports beverage.

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

Symptoms of heat exhaustion include:

- Heavy sweating
- Extreme weakness or fatigue
- Dizziness, confusion
- Nausea
- Clammy, moist skin
- Pale or flushed complexion
- Muscle cramps
- Slightly elevated body temperature
- Fast and shallow breathing

Treat a worker suffering from heat exhaustion with the following:

- Have them rest in a cool, shaded or air-conditioned area.
- Have them drink plenty of water or other cool, nonalcoholic beverages.
- Have them take a cool shower, bath, or sponge bath.

Heat Stroke is the most serious heat-related disorder. It 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 can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Symptoms of heat stroke include:

- Hot, dry skin (no sweating)
- Hallucinations
- Chills
- Throbbing headache
- High body temperature
- Confusion/dizziness
- Slurred speech

Take the following steps to treat a worker with heat stroke:

- Call 911 and notify their supervisor.
- Move the sick worker to a cool shaded area.
- Cool the worker using methods such as:
 - I. Soaking their clothes with water.
 - II. Spraying, sponging, or showering them with water.
 - III. Fanning their body.

Appendix B - Additional Resources

OSHA•NIOSH INFOSHEET, Protecting Workers from Heat Illness,
<https://www.cdc.gov/niosh/docs/2011-174/pdfs/2011-174.pdf?id=10.26616/NIOSH PUB2011174>

About the Heat Index

https://www.osha.gov/SLTC/heatillness/heat_index/about.html

Using the Heat Index: A Guide for Employers

https://www.osha.gov/SLTC/heatillness/heat_index/using_heat_protect_workers.html

For Additional Information - NIOSH

For more information on heat stress and educational products for safety and health professionals, employers, and workers, visit the [NIOSH Topic Page on Heat Stress](#).

<https://www.cdc.gov/niosh/topics/heatstress/>