Oregon OSHA’s Rules for Preventing Heat-Related Illnesses, OAR 437-002-0156 and 437-004-1131

# Sample Rest Breaks Plan for Heat Illness Prevention

**Company name: Click or tap here to enter text.**

**Date approved: Click or tap to enter a date.**

Oregon OSHA’s rules for preventing heat-related illnesses requires employers to develop a heat illness prevention rest break schedule when the Heat Index[[1]](#footnote-1) equals or exceeds 90 °F and the rules provide three options. Option A allows an employer to implement a self-designed schedule by building on a minimum rest break schedule using four specific elements. Option B allows an employer to implement a schedule by using an example heat illness prevention plan designed by NIOSH. Option C allows an employer to implement a schedule by using a simplified schedule designed by Oregon OSHA and based on a high-heat scenario in the NIOSH plan. Oregon OSHA has developed a factsheet[[2]](#footnote-2) that contains detailed information about the three options.

**Of the three options, we have decided on option**  **Pick A, B, or C.**

*Note to employers; feel free to remove the two options below that you decided not to follow.*

**Option A** allows employers to develop their own heat illness prevention rest break schedule. Employers must integrate the four elements below into their written heat illness prevention rest break schedule

(i) The effect of personal protective equipment (PPE) on the body’s ability to retain heat;

(ii) The effect of the type of work clothing on the body’s ability to retain heat;

(iii) Relative humidity, whether work activities are indoors or outdoors; and

(iv) The intensity of the work being performed.

Table 1. Minimum employer-designed heat illness prevention rest break schedule, upon which subsections (i) through iv) must be applied:

|  |  |
| --- | --- |
| **Heat index (°F)** | **Rest break durations and intervals** |
| 90 or greater | 10 minutes every two hours |
| 100 or greater | 15 minutes every hour |

This is how we are going to address the effect of personal protective equipment (PPE) on the body’s ability to retain heat. We will:

1. Example – Ensure that you remove any PPE worn while you are on your heat illness prevention rest break.
2. Click or tap here to enter text and add more rows as needed.

This is how we are going to address the effect of the type of work clothing on the body’s ability to retain heat. We will:

1. Example – Follow NIOSH’s work/rest schedule if you are wearing chemical-resistant suits (IF option B chosen).
2. Click or tap here to enter text and add more rows as needed.

This is how we are going to address relative humidity, whether work activities are indoors or outdoors. We will:

1. Example – Adjust the length of your heat illness prevention rest breaks when the relative humidity is equal to or greater than 50% for more than half of the work day.
2. Click or tap here to enter text and add more rows as needed.

This is how we are going to address the intensity of the work being performed by our employees. We will:

1. Example – Adjust the length of your heat illness prevention rest breaks when you are performing work in either the heavy or very heavy workloads, based upon the information in the rule appendix.
2. Click or tap here to enter text and add more rows as needed.

After consideration of the above elements, **Employer** will implement the following rest break schedule:

|  |  |
| --- | --- |
| **Heat Index (°F)** | **Rest break durations and intervals** |
| ## or greater | ### minutes every ### hours |
| ### or greater | ### minutes every ### hour |

**Option B** allows an employer to implement a schedule by using an example heat illness prevention plan designed by NIOSH. An employers that chooses option B MUST adjust the temperatures in the first column, by following the instructions below the table.

### Work/rest schedules for workers wearing normal work clothing\*

| **Adjusted  temperature (°F)†** | **Light work**  (minutes work/rest) | **Moderate work**  (minutes work/rest) | **Heavy work**  (minutes work/rest) |
| --- | --- | --- | --- |
| 90 | Normal | Normal | Normal |
| 91 | Normal | Normal | Normal |
| 92 | Normal | Normal | Normal |
| 93 | Normal | Normal | Normal |
| 94 | Normal | Normal | Normal |
| 95 | Normal | Normal | 45/15 |
| 96 | Normal | Normal | 45/15 |
| 97 | Normal | Normal | 40/20 |
| 98 | Normal | Normal | 35/25 |
| 99 | Normal | Normal | 35/25 |
| 100 | Normal | 45/15 | 30/30 |
| 101 | Normal | 40/20 | 30/30 |
| 102 | Normal | 35/25 | 25/35 |
| 103 | Normal | 30/30 | 20/40 |
| 104 | Normal | 30/30 | 20/40 |
| 105 | Normal | 25/35 | 15/45 |
| 106 | 45/15 | 20/40 | Caution‡ |
| 107 | 40/20 | 15/45 | Caution‡ |
| 108 | 35/25 | Caution‡ | Caution‡ |
| 109 | 30/30 | Caution‡ | Caution‡ |
| 110 | 15/45 | Caution‡ | Caution‡ |
| 111 | Caution‡ | Caution‡ | Caution‡ |
| 112 | Caution‡ | Caution‡ | Caution‡ |

\*With the assumption that workers are physically fit, well-rested, fully hydrated, under age 40, and have adequate water intake and that there is 30% RH [relative humidity] and natural ventilation with perceptible air movement.

†Note: Adjust the temperature reading as follows before going to the temperature column in the table:

Full sun (no clouds): Add 13°

Partly cloudy/overcast: Add 7°

No shadows visible/work is in the shade or at night: no adjustment

**Per relative humidity:**

10%: Subtract 8°

20%: Subtract 4°

30%: No adjustment

40%: Add 3°

50%: Add 6°

60%: Add 9°

‡High levels of heat stress; consider rescheduling activities.

If workers are wearing chemical-resistant suits, they MUST follow the heat illness prevention rest break schedule below, based upon the workload, when employers have chosen Option B.

### Work/rest schedules for workers wearing chemical-resistant suits\*

|  |  | **Air Temperature (°F)** | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **75** | **80** | **85** | **90** | **95** |
| **Light work** | Full sun | Normal | 30/30 | 15/45 | Caution§ | Stop work |
| Partly cloudy | Normal | Normal | 40/20 | 15/45 | Stop work |
| No sun† | Normal | Normal | Normal | 40/20 | 14/45 |
| **Moderate work** | Full sun | Normal | 20/40 | 10/50 | Caution§ | Stop work |
| Partly cloudy | Normal | Normal | 25/35 | Caution§ | Stop work |
| No sun† | Normal | Normal | Normal | 25/35 | Stop work |
| **Heavy work** | Full sun | 35/25‡ | 10/50 | Caution§ | Stop work | Stop work |
| Partly cloudy | Normal | 40/20 | 15/45 | Caution§ | Stop work |
| No sun† | Normal | Normal | 40/20 | 15/45 | Stop work |

\*With the assumption that workers are heat-acclimatized, under the age of 40, physically fit, well-rested, fully hydrated, and wearing Tyvek coveralls, gloves, boots, and a respirator. Cooling vests may enable workers to work for longer periods. Adjustments must be made when additional protective gear is worn.

†No shadows are visible or work is in the shade or at night.

‡35 minutes work and 25 minutes rest each hour.

§High levels of heat stress; consider rescheduling activities.

**Option C** allows an employer to implement a schedule by using a simplified schedule designed by Oregon OSHA and based on a high-heat scenario in the NIOSH plan. No other adjustments are necessary.

### Simplified work/rest schedule

|  |  |
| --- | --- |
| **Heat index temperature (°F)** | **Rest break durations** |
| 90 or greater | 10 minutes every two hours |
| 95 or greater | 20 minutes every hour |
| 100 or greater | 30 minutes every hour |
| 105 or greater | 40 minutes every hour |

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# Sample Acclimatization Plan for Heat Illness Prevention

**Company name: Click or tap here to enter text.**

**Date approved: Click or tap to enter a date.**

## Purpose

Our employees are our most valuable resource and we have developed acclimatization plans to protect the health and safety of our employees to protect them from suffering a heat-related illness.

Acclimatization is the process in which the body adjusts to increased heat exposure and this takes place over time. According to federal OSHA, most workplace-related heat-related fatalities occur within the first three days of employment.

Per Oregon OSHA’s Heat Illness Prevention rules, if we chose to develop our own Acclimatization plan, we must integrate the items below into our plan:

(A) Acclimated and unacclimated workers;

(B) The effects of clothing and personal protective equipment on adding to the heat burden of workers;

(C) The personal and environmental risk factors that put workers at a higher risk of heat-related illness;

(D) Re-acclimatizing workers as necessary, either due to changes in the weather or a worker spending more than seven days away from the job; and

(E) The use and maintenance of auxiliary cooling systems such as water-cooled garments, air-cooled garments, cooling vests, and wetted overgarments.

### Acclimatization Plan for employees new to the job or at worksites where they are at risk for heat illness

|  |  |
| --- | --- |
| **Day of work** | **Percent of time working in the heat** |
| 1st | Click or tap here to enter text. |
| 2nd | Enter text. |
| 3rd | Enter text. |
| 4th | Enter text. |
| 5th | To add more rows click the **+** to the right >. |

Those employees returning from at least a  **Enter a number**  day absence will follow the acclimatization plan for new employees

### Acclimatization Plan for employees who have previous experience with the job and at worksites where they are at risk for heat illness

|  |  |
| --- | --- |
| **Day of work** | **Percent of time working in the heat** |
| 1st | Click or tap here to enter text. |
| 2nd | Enter text. |
| 3rd | Enter text. |
| 4th | Enter text. |
| 5th | To add more rows click the **+** to the right >.. |

***Note:*** *Employers may need to adjust the number of rows in either table to suit their needs. Add rows by selecting the*  **+**  *at the end of a row.*

### Sample NIOSH acclimatization plan for new employees

|  |  |
| --- | --- |
| **Day of work** | **Percent of time working in the heat**  (Based upon an 8-hr work day) |
| 1st | 20\* |
| 2nd | 40\*\* |
| 3rd | 60\*\*\* |
| 4th | 80\*\*\*\* |
| 5th | 100\*\*\*\*\* |

\*On the first day of work, employees will work no more than two hours in excessive heat (equal to or above a Heat Index[[3]](#footnote-3) of 80 °F). Employees are/may be allowed to break this into two, 1-hour periods .

\*\*On the second day of work, employees will work no more than 3.2 hours in excessive heat (equal to or above a Heat Index of 80 °F).

\*\*\* On the third day of work, employees will work no more than 5 hours in excessive heat (equal to or above a Heat Index of 80 °F).

\*\*\*\* On the fourth day of work, employees will work no more than 6.5 hours in excessive heat (equal to or above a Heat Index of 80 °F).

\*\*\*\*\* On the fifth day of work, employees may work the entire shift in excessive heat (equal to or above a Heat Index of 80 °F).

### Sample NIOSH Acclimatization Plan for employees with previous experience with the job (have worked the past seven days or returning from an absence of three days or less)

|  |  |
| --- | --- |
| **Day of work** | **Percent of time working in the heat**  (Based upon an 8-hr work day) |
| 1st | 50 |
| 2nd | 60 |
| 3rd | 80 |
| 4th | 100 |

1. Heat Index chart from NOAA and current weather conditions found at <https://www.weather.gov/safety/heat-index> [↑](#footnote-ref-1)
2. Fact sheet found at [osha.oregon.gov/OSHAPubs/factsheets/fs91.pdf](https://osha.oregon.gov/OSHAPubs/factsheets/fs91.pdf) [↑](#footnote-ref-2)
3. Heat Index chart from NOAA and current weather conditions found at <https://www.weather.gov/safety/heat-index> [↑](#footnote-ref-3)