# 1. Risk Assessment for: Workplace Fatigue when responding to emergencies

|  |  |  |  |
| --- | --- | --- | --- |
| **WORK LOCATION:**  |  | **DESCRIPTION OF WORK:** | Various - working long hours in the EOC, operating equipment/driving a vehicle in the field, labour-intensive work such as sandbagging |
| **COMPLETED BY**:  |  | **ASSESSMENT DATE:** |  | **RANKING:** | **Medium** |

**2. WORK ACTIVITIES: (Include PPE Requirements for Quick Reference)**

|  |
| --- |
| **List Task Activity:** Working long/extended hours due to emergency situation (ie. flooding) or during project work  |
| **PPE Required:** Task-specific PPE |

**3. HAZARDS & RISK LEVEL RATINGS: SCORE = C + P + E = Rate (**3-4 are L**OW) (**5-6-7 are **MEDIUM)** (8-9 are **HIGH)** priority

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **HAZARD #** | **HAZARD IDENTIFICATION** | **CONSEQUENCES** | **PROBABILITY** | **EXPOSURE** | **RISK** | **RATING****L/M/H** |
|  | Fatigue at work can occur due to any of the following:1. Inadequate rest breaks
2. Length of shifts/length of time worked (ex. 12 hours, multiple days in a row)
3. Timing of shifts (switching from nights to days)
4. Insufficient time between shifts
5. Type of work being undertaken (mentally or physically demanding work)
6. Poor planning/scheduling

One of or a combination of many of the above may lead to reduced ability to:1. Coordinate hand-eye movement
2. Communicate effectively
3. Recognize risks
4. Make sound decisions
5. Recall/remember events and their sequence
6. Think analytically
7. Concentrate/avoid distraction
8. Maintain vigilance

***Increased risk of incident or injury can occur due to fatigue*** | 3 | 2 | 2 | 7 | Medium |
| **RISK TOTAL:** | **3** | **2** | **2** | **7** | **Medium** |

 **Add up the individual columns: (Consequence, Probability, Exposure, Risk and divide by number of Hazards)**

**4. MATRIX FOR RANKING THE HAZARDS:**

|  |  |  |  |
| --- | --- | --- | --- |
| **SCORE** | **1** | **2** | **3** |
| **CONSEQUENCES:** |  first aid / minor damage |  lost time injury/moderate damage |  fatality / major damage |
| **PROBABILITY:** |  unlikely |  possible |  likely |
| **EXPOSURE:** |  rarely (less than 1/month) |  often (3 times/week) |  everyday |

**5. CONTROL MEASURES FOR EACH HAZARD IDENTIFIED IN SECTION 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **HAZARD #** | **LIST ALL EXISTING CONTROL MEASURES****(Eliminate, Substitute, Engineering, Administrative, PPE)** | **RECOMMENDATIONS** | **Date required** | **Person Responsible** | **Initial when complete** |
|  | A combination of many of the following should be used to prevent fatigue:1. Introduce job rotation to limit build-up of mental and physical fatigue
2. Reduce the amount of time spent performing physically and mentally demanding tasks
3. Schedule safety critical work outside low body clock periods (ex. not between 2am and 6am)
4. Manage work load and pacing
5. Provide adequate breaks between shift to allow workers enough recovery time – this includes time needed for travelling, eating, sleeping, socializing
6. Limit shift length to 12 hours, including overtime
7. If a split shift is necessary, ensure enough time is given to allow for sleep – workers must not be disturbed during sleep time
8. Ensure there are adequate resources on the job without placing excessive demands on staff
9. Ensure work demands gradually increase towards the middle of the shift and decrease toward the end

Special considerations should be taken for night shift work, such as, but not limited to:1. Perform night work only if it’s necessary -non-essential work ***should not*** be carried out at night
2. Give adequate rest between each night worked. Do not disturb workers during their rest period between shifts.
3. Keep sequential night shifts to a minimum (ex. no more than 4 in a row)
4. Provide an adequate period of non-work following a sequence of night shifts.
5. Except for emergencies, give at least 24 hours of notice before night work. Consider providing a longer period of notice so that workers have time to adjust their activities.
 | If control measures are followed and you experience levels of fatigue that may be detrimental to yourself or others, advise your immediate supervisor.  |  |  |  |

**6. HIERARCHY OF CONTROL MEASURES: (Must be followed in the order below)**

|  |  |  |
| --- | --- | --- |
| **ORDER** |  **CONTROL** | **DESCRIPTION**  |
| **1** |  **ELIMINATION:** | Can the hazard be removed at the source? Can the task be eliminated entirely? Example: eliminating the need to have a worker enter an excavation by hydro-excavating to expose underground infrastructure. |
| **2** |  **SUBSTITUTION:** | Can a hazard, hazardous process or hazardous material be substituted with one with no hazards? Example: using salt water brine instead of a chemical for deicing the roads. |
| **3** |  **ENGINEERING:** | Engineering controls include isolation, ventilation and equipment modification. These controls focus on the source of the hazard. Example: a guard placed around a saw blade, or a shoring system placed in an excavation. |
| **4** |  **ADMINISTRATIVE:** | Remove or reduce the exposures by reducing the duration, frequency and severity of exposure to hazards. Example: changes to work procedures & practices, scheduling, job rotation, breaks during heat/cold exposure. |
| **5** |  **PPE:** | Personal Protective Equipment does not control the hazard but reduces the effect of exposure to the hazard has on the worker. PPE must always be the last line of defense Example: earplugs, latex gloves, CSA boots, CSA Hard Hats  |

# 7. REVIEWED BY:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DATE** | **REVISION DATE** | **PRINT NAME** | **POSITION** | **SIGNATURE** |
|  |  |  |  |  |
|  |  |  |  |  |

**THE HAZARD IDENTIFICATION AND ASSESSMENT PROCESS**

1. Identify the task to be assessed, determine if the task is **H**igh, **M**edium or **L**ow risk
2. Include workers who have experience in performing the task, ensure the process is led by someone who has training and experience in

conducting hazard assessments. These individuals must have some type of formal training.

1. Identify hazards associated with the tasks. Consider PHYSICAL, CHEMICAL, BIOLOGICAL, AND PSYCHOLOGICAL
2. Rate the hazards by degree of risk using the following matrix:

|  |  |  |  |
| --- | --- | --- | --- |
|  **SCORE** |  **1** |  **2** |  **3** |
| **CONSEQUENCES:** | first aid / minor damage | lost time injury/moderate damage | fatality / major damage |
| **PROBABILITY:** | unlikely | possible | likely |
| **EXPOSURE:** | rarely (less than 1/month) | often (3 times/week) | everyday |

**TOTAL** the three columns: **(T)**

* 3-4 are **low** priority hazards
* 5-7 are **medium** priority hazards
* 8-9 are **high** priority hazards

The **high** priority hazards are addressed first, followed by the **medium** priority hazards. **Low** priority hazards may not require attention at this time, they may simply require monitoring. The Hierarchy of Control Measures must be followed when eliminating or mitigating hazards in the following order:

|  |  |  |
| --- | --- | --- |
| **1** |  **ELIMINATION:** | Can the hazard be removed at the source? Can the task be eliminated entirely? Example: eliminating the need to have a worker enter an excavation by hydro-excavating to expose underground infrastructure. |
| **2** |  **SUBSTITUTION:** | Can a hazard, hazardous process or hazardous material be substituted with one with no hazards? Example: using salt water brine instead of a chemical for deicing the roads. |
| **3** |  **ENGINEERING:** | Engineering controls include isolation, ventilation and equipment modification. These controls focus on the source of the hazard. Example: a guard placed around a saw blade, or a shoring system placed in an excavation. |
| **4** |  **ADMINISTRATIVE:** | Remove or reduce the exposures by reducing the duration, frequency and severity of exposure to hazards. Example: changes to work procedures & practices, scheduling, job rotation, breaks during heat/cold exposure. |
| **5** | **PPE** | Personal Protective Equipment does not control the hazard but reduces the effect of exposure to the hazard has on the worker. PPE must always be the last line of defense Example: earplugs, latex gloves, CSA boots, CSA Hard Hats  |

 Hazard Assessments **must be reviewed** in accordance with Hazard Assessment Program Guide.