

WAC 173-183-340 Oil class ranking. (1) The purpose of this section is to provide a relative ranking of the severity of effects caused by a spilled oil. The ranking is based on the known chemical, physical, and mechanical properties of oils in the six classes identified in this section, as well as other properties affecting propensity to cause acute toxicity and mechanical injury, and to persist in the environment. For purposes of the compensation schedule, relative rankings of the severity of effects caused by a spilled oil are provided for the following classes of oils:

- (a) Prudhoe Bay crude oil;
- (b) Bunker C;
- (c) No. 2 fuel oil;
- (d) Gasoline;
- (e) Kerosene; and
- (f) Kerosene-type jet fuel.

(2) The relative ranking scores for the oil classes range from 1 to 5, where 1 represents the least harmful effect and 5 represents the most harmful effect. For purposes of RCW 90.48.366 and 90.48.367, the acute toxicity, mechanical injury, and persistence relative ranking scores for the oils described by the classes enumerated in subsection (1) of this section shall be as follows:

Table 1. Acute Toxicity, Mechanical Injury and Persistence Relative Ranking Scores for Classified Oils (OIL).

| Oil Class | Acute Toxicity | Mechanical Injury | Persistence |
|------------------------|----------------|-------------------|-------------|
| Prudhoe Bay Crude Oil | 0.9 | 3.6 | 5 |
| Bunker C | 2.3 | 5.0 | 5 |
| No. 2 Fuel Oil | 2.3 | 3.2 | 2 |
| Gasoline | 5.0 | 1.0 | 1 |
| Kerosene | 1.4 | 2.4 | 1 |
| Kerosene-type Jet Fuel | 1.4 | 2.4 | 1 |

(3) In cases where the spilled oil is not described by any of the oil classes listed in subsection (1) of this section, or is a mixture of oils, the department shall determine the acute toxicity, mechanical injury, and persistence scores as follows:

(a) By assigning the acute toxicity, mechanical injury, and persistence scores assigned to the oil class best describing the spilled oil from subsection (2) of this section; or

(b) By using the following guidance to determine the acute toxicity, mechanical injury, and persistence relative ranking scores:

(i) Acute toxicity relative ranking score. An acute toxicity raw score is determined by summing the weighted averages of the 1-, 2-, and 3-ringed aromatic compounds comprising the spilled oil and dividing this sum by 107, where aromatic compound composition is determined by percent-weight, and weighting is determined by aqueous solubility of the aromatic compounds, as described by the following formula:

$$\text{Acute Toxicity Raw Score} = \frac{[(\text{SOL}_1 * \text{PCT-WT}_1) + (\text{SOL}_2 * \text{PCT-WT}_2) + (\text{SOL}_3 * \text{PCT-WT}_3)]}{107}$$

where SOL_i = solubility in seawater of i-ring aromatic hydrocarbons, and

PCT-WT_i = percent weight of i-ring aromatic hydrocarbons in the spilled oil, $i = 1, 2, \text{ and } 3$.

The final acute toxicity relative ranking score is determined by rounding the acute toxicity raw score to the nearest 0.1 using standard rounding procedures where decimals less than 0.05 are rounded down and decimals equal to or greater than 0.05 are rounded up.

(ii) Mechanical injury relative ranking score. A mechanical injury raw score is determined by subtracting 0.688 from the specific gravity of the spilled oil and dividing this result by 0.062 as follows:

$$\text{Mechanical Injury Score} = (\text{SP} - 0.688) / 0.062$$

where SP = specific gravity of the spilled oil.

The final mechanical injury ranking score is determined by rounding the mechanical injury raw score to the nearest 0.1 using standard rounding procedures where decimals less than 0.05 are rounded down and decimals equal to or greater than 0.05 are rounded up.

(iii) Persistence relative ranking score. A persistence relative ranking score is determined from empirical data describing the length of time the spilled oil is known to, or is likely to, persist in a variety of habitat types. Scoring is assigned on a 1 to 5 scale as follows:

| SCORE | ANTICIPATED PERSISTENCE |
|-------|-------------------------|
| 5 | 5 - 10 years or more |
| 4 | 2 - 5 years |
| 3 | 1 - 2 years |
| 2 | 1 month to 1 year |
| 1 | days to weeks. |

(4) In cases where the spilled oil is comprised of two or more types of oil, damages shall be calculated under the schedule for each oil type and then summed to calculate total damages liability.

[Statutory Authority: Chapter 90.48 RCW. WSR 92-10-005 (Order 91-13), § 173-183-340, filed 4/23/92, effective 5/24/92.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.