**SPILLS DIGEST**

Most common spill substance, causes and sources during the quarter. Abbreviations refer to the categories used for graphs on pages 2-3.

**TOP 10 SUBSTANCES**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel (REF)</td>
<td>144</td>
</tr>
<tr>
<td>Hydraulic Oil (REF)</td>
<td>54</td>
</tr>
<tr>
<td>Other (HS)</td>
<td>33</td>
</tr>
<tr>
<td>Aviation Fuel (REF)</td>
<td>26</td>
</tr>
<tr>
<td>Ethylene Glycol (HS)</td>
<td>26</td>
</tr>
<tr>
<td>Gasoline (REF)</td>
<td>22</td>
</tr>
<tr>
<td>Engine Lube Oil (REF)</td>
<td>20</td>
</tr>
<tr>
<td>Crude (Cru)</td>
<td>18</td>
</tr>
<tr>
<td>Other (REF)</td>
<td>15</td>
</tr>
<tr>
<td>Methyl Alcohol (HS)</td>
<td>13</td>
</tr>
<tr>
<td>Produced Water (REF)</td>
<td>13</td>
</tr>
<tr>
<td>Transmission Oil (REF)</td>
<td>11</td>
</tr>
<tr>
<td>Waste Oil (All Types) (REF)</td>
<td>11</td>
</tr>
</tbody>
</table>

**TOP 10 SPILL CAUSES**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leak, Other</td>
<td>67</td>
</tr>
<tr>
<td>Line Ruptured</td>
<td>58</td>
</tr>
<tr>
<td>Tank Overfill</td>
<td>46</td>
</tr>
<tr>
<td>Unknown</td>
<td>40</td>
</tr>
<tr>
<td>Seal Failure</td>
<td>29</td>
</tr>
<tr>
<td>Valve Faulty</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>23</td>
</tr>
<tr>
<td>Vent Discharge</td>
<td>21</td>
</tr>
<tr>
<td>Connection Faulty</td>
<td>16</td>
</tr>
<tr>
<td>Cargo Not Secured</td>
<td>14</td>
</tr>
</tbody>
</table>

**TOP 10 SPILL SOURCES**

<table>
<thead>
<tr>
<th>Source</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>86</td>
</tr>
<tr>
<td>Industrial Vehicle</td>
<td>67</td>
</tr>
<tr>
<td>Home/office/business</td>
<td>40</td>
</tr>
<tr>
<td>Unknown</td>
<td>27</td>
</tr>
<tr>
<td>Fishing</td>
<td>27</td>
</tr>
<tr>
<td>Refinery</td>
<td>27</td>
</tr>
<tr>
<td>Truck</td>
<td>26</td>
</tr>
<tr>
<td>Fuel Station</td>
<td>20</td>
</tr>
<tr>
<td>Pipeline</td>
<td>17</td>
</tr>
<tr>
<td>Aircraft</td>
<td>17</td>
</tr>
<tr>
<td>Auto</td>
<td>16</td>
</tr>
<tr>
<td>Home Heating Tank</td>
<td>15</td>
</tr>
<tr>
<td>Oil Recover/response</td>
<td>9</td>
</tr>
</tbody>
</table>

**SIGNIFICANT RESPONSES**

**SAVOONGA TANK FARM**

*January 23, 1997*

The automatic shut-off mechanism on a day tank malfunctioned, resulting in a 5,000-gallon release of diesel to secondary containment. Approximately 4,795 gallons were recovered. The remaining product was picked up with sorbent material.

**OVERTURNED BARGE**

NEAR NINILCHIK (see photo)

*January 25, 1997*

While rigging the barge OREGON for sea tow, a tug bumped the vessel's side and ripped an 8-foot hole in one of its ballast tanks. The tank flooded, causing the barge to become unbalanced and overturn. Approximately 12,500 tons of urea were lost.

**UNOCAL STEELHEAD PLATFORM 3697**

*March 7, 1997*

A corroded wastewater discharge pipe which passes through a fuel tank failed, resulting in a 9,000 gallon diesel release. Responders were unable to locate any evidence of the spilled product during multiple overflights of the area.

**ARCO DRILL SITE 4**

*March 17, 1997*

Between 750,000 and 1,000,000 gallons of seawater were released through 9 well heads. Cause of the release is under investigation. No impacts to surrounding tundra were observed.

**ARCO DRILL SITE 16**

*March 26, 1997*

An estimated 4,914 gallons of mixed crude oil (71%) and methanol/water (21%) were released after the pipeline between the well and a valve split. Contaminated snow was removed and placed in a lined pit. As the snow melts, the water will be reinjected into a well.
### I. STATEWIDE SUMMARY OF RELEASES BY PRODUCT

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>COUNT</th>
<th>TOTAL LBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRU</td>
<td>18</td>
<td>83,875</td>
</tr>
<tr>
<td>EHS</td>
<td>22</td>
<td>28,496</td>
</tr>
<tr>
<td>HS</td>
<td>85</td>
<td>30,371,788</td>
</tr>
<tr>
<td>REF</td>
<td>330</td>
<td>251,083</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>455</td>
<td>30,735,242</td>
</tr>
</tbody>
</table>

#### NOTE:
Releases are reported to the Department in Gallons (gal) or Pounds (lbs). However, in order to summarize data in bar graphs, releases reported in gallons are converted to pounds using 8.33 pounds/gallon as a conversion factor. To convert pounds to gallons, divide by 8.33.

### II. SUMMARY OF RELEASES BY AREA

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th><strong>Central Area</strong></th>
<th></th>
<th><strong>Northern Area</strong></th>
<th></th>
<th><strong>Southeast Area</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COUNT</td>
<td>TOTAL LBS</td>
<td>COUNT</td>
<td>TOTAL LBS</td>
<td>COUNT</td>
</tr>
<tr>
<td>CRU</td>
<td>4</td>
<td>35,461</td>
<td>14</td>
<td>48,414</td>
<td></td>
</tr>
<tr>
<td>EHS</td>
<td>11</td>
<td>28,216</td>
<td>1</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>HS</td>
<td>9</td>
<td>22,002,466</td>
<td>71</td>
<td>8,363,391</td>
<td>5</td>
</tr>
<tr>
<td>REF</td>
<td>152</td>
<td>115,570</td>
<td>133</td>
<td>111,855</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>176</td>
<td>22,181,713</td>
<td>219</td>
<td>9,523,469</td>
<td>60</td>
</tr>
</tbody>
</table>

#### KEY TO GRAPHS
- Crude Oil (CRU)
- Extremely Hazardous Substance (EHS)
- Hazardous Substance (HS)
- Refined Oil (REF)
### III. SUMMARY OF RELEASES BY CAUSE

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>ACCIDENT</th>
<th>HUMAN FACTORS</th>
<th>MECHANICAL</th>
<th>NATURAL CAUSES</th>
<th>OTHER/UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COUNT</td>
<td>TOTAL LBS</td>
<td>COUNT</td>
<td>TOTAL LBS</td>
<td>COUNT</td>
</tr>
<tr>
<td>CRU</td>
<td>1</td>
<td>83</td>
<td>14</td>
<td>82,750</td>
<td>2</td>
</tr>
<tr>
<td>EHS</td>
<td>2</td>
<td>25</td>
<td>17</td>
<td>17,424</td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>4</td>
<td>22,040,363</td>
<td>13</td>
<td>7,654</td>
<td>53</td>
</tr>
<tr>
<td>REF</td>
<td>17</td>
<td>3,757</td>
<td>79</td>
<td>44,782</td>
<td>180</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21</td>
<td>22,044,140</td>
<td>95</td>
<td>52,554</td>
<td>264</td>
</tr>
</tbody>
</table>

**KEY TO GRAPHS**
- Crude Oil (CRU)
- Extremely Hazardous Substance (EHS)
- Hazardous Substance (HS)
- Refined Oil (REF)

### IV. SUMMARY OF RELEASES BY SOURCE

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>STORAGE</th>
<th>TRANSPORTATION</th>
<th>VESSEL/BARGE</th>
<th>OTHER/UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COUNT</td>
<td>LBS</td>
<td>COUNT</td>
<td>LBS</td>
</tr>
<tr>
<td>CRU</td>
<td>2</td>
<td>26,265</td>
<td>2</td>
<td>43,249</td>
</tr>
<tr>
<td>EHS</td>
<td>20</td>
<td>26,471</td>
<td>7</td>
<td>43,432</td>
</tr>
<tr>
<td>HS</td>
<td>15</td>
<td>15,935</td>
<td>27</td>
<td>43,432</td>
</tr>
<tr>
<td>REF</td>
<td>99</td>
<td>119,266</td>
<td>123</td>
<td>100,751</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>137</td>
<td>186,861</td>
<td>151</td>
<td>187,432</td>
</tr>
</tbody>
</table>

**KEY TO GRAPHS**
- Crude Oil (CRU)
- Extremely Hazardous Substance (EHS)
- Hazardous Substance (HS)
- Refined Oil (REF)
TRACTOR TUGS TO BE STATIONED IN PRINCE WILLIAM SOUND

In an effort to improve upon the world’s safest oil transportation system, Alaska’s North Slope oil shippers have committed to construct two powerful new tractor tugs to escort tankers through Prince William Sound. Shippers agreeing to the plan include ARCO Marine, British Petroleum, SeaRiver Maritime, Tesoro Alaska and Chevron Shipping Co.

The tractor tug represents a major advancement in tugboat design. Using a state-of-the-art propulsion system with controllable pitch blades, tractor tugs can move forward, backwards and sideways and quickly shift power from full ahead to full astern. A unique hull design allows a tractor tug to turn a full circle while remaining in place. This exceptional maneuverability makes tractor tugs well-suited to tanker escort duties.

UNDERGROUND FUEL TANK DEADLINE LESS THAN A YEAR AWAY

By December 22, 1998, all regulated underground petroleum storage tanks in Alaska must have adequate protection against spill and leaks or be permanently closed. Owners of underground fuel tanks have less than a year before the federal deadline to upgrade, replace, or close leaking tanks, and Department of Environmental Conservation officials fear many owners may not be ready for the deadline. Records show that about 70% of regulated tanks in Alaska — as many as 2,000 tanks in total — are still unprotected. Home heating oil tanks are not affected by the new regulations.

LEAKING OIL TANK ACTIVATES NEW SPILL CLEANUP AGREEMENT WITH KETCHIKAN

While making repairs to a right-of-way in Ketchikan, a City work crew discovered an old abandoned heating oil tank buried under a narrow wooden walkway. The tank had deteriorated and had been leaking for some time. Under the terms of a new "local response agreement" between Ketchikan and DEC, the City will conduct the cleanup, under the direction of the State On-Scene Coordinator (SOSC). The agreement allows the department to reimburse the City for spill response and cleanup costs.

To date DEC has entered into Local Response Agreements with 11 communities statewide. This is the first time the State and a local community have conducted a coordinated response under the agreement. Ron Flinn, SOSC, said, "This is an opportunity for the State and local communities to work together to solve problems of concern to both. It’s a good start for this new program."

DEFINITIONS & ABBREVIATIONS

Crude Oil (CRU): unrefined petroleum products.
Refined Oil (REF): refined petroleum products, including gasoline, diesel, petroleum-based lubricants, oily waste, kerosene, and aviation fuel.
Extremely Hazardous Substance (EHS): acutely toxic substances as established by the U.S. Environmental Protection Agency under the Emergency Planning and Community Right-to-Know Act. The list of EHSs is established by federal regulation (40 CFR Part 355) and includes approximately 360 substances. Chlorine and ammonia are the most common EHSs used in Alaska.
Hazardous Substance (HS): any substance not included in the above definitions that is potentially harmful to humans or the environment when it is released to land, air, or water.

PLEASE NOTE... This report is based on provisional spill data. Readers should be aware that minor discrepancies in the data may exist.

TO SUBSCRIBE... to the “Quarterly Summary of Oil and Hazardous Substance Releases,” send your name and address to: Camille Stephens, 410 Willoughby Ave., Juneau, AK 99801, or email: cstephen@envircon.state.ak.us