

## FUEL HANDLING SUPPLEMENT “Risk assessment and additional measures”

FOR INFORMATION ONLY

### Purpose

This Fuel Handling Supplement is a guide used in conjunction with Fuel Handling EFP-06 to promote appropriate fuel handling within the scope of BCTS EMS Program. The supplement includes a risk assessment method that identifies associated risks to various fuel management situations and provides additional preventative and control measures for BCTS clients to consider in reducing risks.

**TABLE A. RISK ASSESSMENT**

Risk Identification	HIGH	MEDIUM	LOW	Assigned Numerical Value
Numerical Value	3	2	1	
<b>Environmental Factors</b>				
Distance to nearest watercourse or water body	< 50m	50m-100m	> 100m	
Soil characteristics at or around the <i>Fuel Facility</i>	Porous or unknown	Semi-porous	Non-porous (i.e. clay/bedrock)	
Terrain slope at or around the <i>Fuel Facility</i>	> 6% slope	2%-6% slope	< 2% slope	
<b>Operational Factors</b>				
Site designation or description	High traffic logging road (Main Line)	Low traffic logging road (Side Spur)	No through traffic logging road	
Duration of operation of the <i>Fuel Facility</i>	> 6 days	2-6 days	< 2 days	
Volume of fuel stored at the <i>Fuel Facility</i>	>4500L	500L-4500L	< 500L	
Number of times the <i>Fuel Facility</i> is accessed	> 12x per day	6-12x per day	< 6x per day	
Amount of traffic around the <i>Fuel Facility</i>	> 15 personnel on site	5-15 personnel on site	< 5 personnel on site	
<b>Prevention &amp; Preparedness Factors</b>				
Distance to additional spill response cache or equipment	> 60 minutes	15-60 minutes	< 15 minutes	
Additional <i>Spill Control measures</i>	Tank with no <i>secondary containment</i>	Tank with <i>secondary containment</i>	Tank with secondary containment and additional spill controls (i.e. berms, sloped to a sump)	
<b>Risk Value</b>	<b>(Add the Assigned Numerical Values)</b>			

**TABLE B. RISK RANKING: LOW**

Numerical Value	Risk Ranking	Preventative Measures	Control Measures
<12	LOW	<ul style="list-style-type: none"> <li>▪ To extend the life of a mobile tank: Use a rubber mat or a piece of plywood between the mobile tank and the truck box or support system</li> <li>▪ To minimize spillage and leakage from the fill cap: Use a stem pipe to extend the filling bung of the mobile tank</li> </ul>	<ul style="list-style-type: none"> <li>▪ Must meet minimum Spill Kit Requirements</li> <li>▪ Locating containers or caches where potential spills would not reach waterways or watercourses</li> </ul>

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**TABLE C. RISK RANKING: MEDIUM**

Numerical Value	Risk Ranking	Preventative Measures	Control Measures
12-23	MEDIUM	<p><u>TAKE IMMEDIATE PREVENTATIVE MEASURES:</u></p> <ul style="list-style-type: none"> <li>Re-assess all the risk factors to determine if one or more ratings can be reduced</li> <li>Re-assess the environmental impact that a spill may have on the environment</li> <li>Review additional spill response equipment that may be required for containment and recovery</li> <li>Review the BCTS Fuel Handling Environmental Field Procedure #6 to ensure procedures address the risk factors.</li> </ul>	<p><u>TAKE IMMEDIATE CONTROL MEASURES:</u></p> <ul style="list-style-type: none"> <li>Moving fuel storage to a lower risk location</li> <li>Add secondary containment or double walled containers</li> </ul> <p><u>STORE ADDITIONAL SPILL CONTROL EQUIPMENT</u></p> <ul style="list-style-type: none"> <li>Tarps for tarp containment</li> <li>Plywood for culvert blocks</li> </ul> <p><u>ENSURE COLLISION PROTECTION:</u></p> <ul style="list-style-type: none"> <li>A barrier sufficient to alert the operator and prevent accidental damage to the container and release of the product or,</li> <li>Placement of the container in a location where the potential of collision has been minimized or eliminated</li> </ul> <p><u>SPILL PREPAREDNESS:</u></p> <ul style="list-style-type: none"> <li>Complete an Environmental Emergency Response Plan (ERP) at the start of every operation</li> <li>Conduct an Emergency Response Drill with the crew, (see BCTS guide) and record on Checklist CHK- 010.</li> </ul>

**TABLE D. RISK RANKING: HIGH**

Numerical Value	Risk Ranking	Preventative Measures	Control Measures
>23	HIGH	<p><u>TAKE IMMEDIATE PREVENTION MEASURES:</u></p> <ul style="list-style-type: none"> <li>Re-assess all the risk factors to determine if one or more ratings can be reduced</li> <li>Re-assess the environmental impact that a spill may have on the environment and implement preventative measures</li> <li>Review the BCTS Fuel Handling Environmental Field Procedure 06 to ensure procedures address the risk factors.</li> <li>Be Prepared! Store additional spill response equipment on-site for containment and recovery</li> <li>Complete an Environmental Emergency Response Plan (ERP) at the start of every operation</li> <li>Conduct an Emergency Response Drill with the crew, (see BCTS guide) and record on Checklist CHK- 010.</li> </ul>	<p><u>TAKE IMMEDIATE CONTROL MEASURES:</u></p> <ul style="list-style-type: none"> <li>Move the fuel storage to a lower risk location</li> <li>Add secondary containment or double-walled containers</li> <li>Review Spill Response awareness and preparedness</li> </ul> <p><u>STORE ADDITIONAL SPILL CONTROL EQUIPMENT</u></p> <ul style="list-style-type: none"> <li>Tarps for tarp containment</li> <li>Plywood for culvert blocks</li> <li>Sandbags and PVC pipe for underflow containment</li> <li>Sandbags for diversions and upstream eddy containment</li> </ul> <p><u>ENSURE COLLISION PROTECTION:</u></p> <ul style="list-style-type: none"> <li>A barrier sufficient to alert the operator and prevent accidental damage to the container and release of the product or,</li> <li>Placement of the container in a location where the potential of collision has been minimized or eliminated</li> </ul>