

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	
<i>Environmental Factors</i>				
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	
<i>Operational Factors</i>				
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	
<i>Prevention & Preparedness Factors</i>				
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)	
Risk Value	(Add the Assigned Numerical Values)			

TABLE B. RISK RANKING: LOW

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

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

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