This guide should be used in conjunction with *A Disciplined Approach to Emergency Response Chart* and updated each operational period or if the situation changes.

Date	Time	Name of person completing this form	

#### **Problem**

NATURE and QUANTITY of MATERIAL			
Chemical /Shipping Name:			
UN or CAS Description:			
TDG Classification:			
Nature of the Hazard:			
- fire, explosion			
- inhalation, environmental			
Quantity Spilled:			
Quantity at Risk:			
TYPE, CONDITION and BEHAVIOUR of CONTAINER			
Mode of Transport:			
e.g. road, rail, air, marine			
Means of Containment:			
- type(s) and number(s),			
- identification marks			
Fixed Facility:			
- type			
- equipment number(s)			
Danger of Failure, stress from:			
- mechanical damage (e.g. impact,			
heat, fire)			
- chemical reaction (e.g.			
exothermic, polymerization)			
Container Failure, due to:			
- leak (e.g. crack, flange, valve)			
- puncture, BLEVE			
STAGE of INCIDENT			
Stability of the Incident:			
Is it stable?			
What would cause the escalation of			
the incident?			

Rev. 0: 2012-11-06 Page 1 of 8

#### **Modifying Conditions**

LOCATION						
Location of the Incident: - size of population and who - adjacent facilities - access (equipment/persor						
Spill:						
<ul><li>- ground water</li><li>- fresh water</li><li>- salt water</li></ul>						
Product Location and Migration	on:					
Where is it now? Where is likely to go?						
<b>Combination of Circumstance</b> Is it a combination of issues?	Combination of Circumstances:  Is it a combination of issues?					
		TII	ME			
Time of alert			Time	of incident		
Time of day; affects on  - response operations (daylight)  - population change (traffic)  - movement of spill (tide)						
Day of week (traffic)			Response time to incident			
WEATHER CONDITIONS						
Temperature:	Wind D	l Direction:		Wind Speed:		Humidity:
Precipitation:						
What kind is it and how much?						
e.g. rain, snow, fog,		<u> </u>				
<ul><li>Weather Forecast:</li><li>- check area weather forecast</li><li>- severe changes may impact</li><li>response</li></ul>						

Rev. 0: 2012-11-06 Page 2 of 8

#### **Potential Losses**

	AFFECTED AREA
	People
Injury/Fatality	
How many have been affected? How many may be affected?	
Drinking Water	
Long term or short term? Local or public?	
	Environment
Water	
What system(s)? Soil/ground water Lake, river/stream, marine	
Wildlife, Habitat, Recreational	
Has it been or will it be potentially affected?	
	Public Affairs
Areas of issues	
- media	
<ul><li>government</li><li>community</li></ul>	
- special interests	
	Financial Risk
Public	
<ul><li>private or public structures</li><li>environment</li></ul>	
Corporate	
- assets, reputation	
<ul><li>production</li><li>customers</li></ul>	
- adjacent businesses	
Compliance	
- regulatory	
- due diligence	

Rev. 0: 2012-11-06 Page 3 of 8

#### **Control Measures**

	INTERNAL RESOURCES
ER Plan:	
e.g. TER Plan, ERAP, E2	
Trained Personnel:	Technical Advisor(s):
Who do you have? Trained to what standard? What certification?	Home Coordinator:
	Spokesperson:
Oth an a second tional business	Product Specialist(s):
Other: e.g. occupational hygiene, plume modeling	Other:
Equipment:	
What do you have, need and is available? e.g. PPE, communications, command post, resources for potential response strategies	
Control Agents:	
What is available? e.g. firefighting, dispersion, neutralization	
	EXTERNAL RESOURCES
Emergency Plans:	
What plans are available to be implemented? e.g. CHLOREP, LPGERC, Marine	
<u>, , , , , , , , , , , , , , , , , , , </u>	
First Responders:	
First Responders: Who; are they on the scene?	
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Who; are they on the scene?	
Who; are they on the scene?  Public Agencies:  Who is or needs to be involved?	
Who; are they on the scene?  Public Agencies:  Who is or needs to be involved? e.g. MOE, MOT, EMO, MNR, EC,	
Who; are they on the scene?  Public Agencies:  Who is or needs to be involved? e.g. MOE, MOT, EMO, MNR, EC,  Utilities:  Locate, shut-off or supply?	
Who; are they on the scene?  Public Agencies: Who is or needs to be involved? e.g. MOE, MOT, EMO, MNR, EC,  Utilities: Locate, shut-off or supply? electricity, gas, phone, optics  Product Information: What sources were used?	
Who; are they on the scene?  Public Agencies: Who is or needs to be involved? e.g. MOE, MOT, EMO, MNR, EC,  Utilities: Locate, shut-off or supply? electricity, gas, phone, optics  Product Information:	
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Rev. 0: 2012-11-06 Page 4 of 8

## Define Critical Objectives

PROTECT WHAT?		
What people and where?		
- responders		
- public (residents, businesses,		
etc.)		
What environment(s) is at risk?		
- drinking water		
- wildlife		
- recreational use		
What property is at risk?		
- means of containment		
- buildings/structures		
- equipment	_	
FROM WHAT HAZARD?		
Inhalation		
e.g. IDLH, TLV, odour		
Fire		
-heat, smoke		
Contact with released material		
-corrosive, irritant		
Potential projectiles		
PRIORITIZE CRITICAL OBJECTIVES		
What are the critical objectives?		
If resources are limited, the priority is		
people, environment and then		
property.		
What is most critical?		
2 <sup>nd</sup> priority		
3 <sup>rd</sup> priority		
4 <sup>th</sup> priority		

Rev. 0: 2012-11-06 Page 5 of 8

## **Response Strategies**

ESTABLISH INCIDENT MANAGEMENT			
Incident Commander:			
Operation Section Chief:			
Planning Section Chief:			
Command Facilities Location:			
e.g. EOC, Command Post, Staging			
Establish Hot, Warm & Cold Zones:			
Secure area – where and by who?			
Meeting schedules & location:			
Operational periods:			
PROTECT POTENTIAL LOSSES			
Protect Response Team:			
e.g. PPE requirement, rescue plan			
Rescue Trapped/Injured Persons:			
From where and by who?			
Potentially impacted publics:			
e.g. shelter-in-place, evacuate and by who?			
Protect environment:			
e.g. wildlife, sensitive eco-systems, recreational			
Protect property:			
e.g. livestock, tourism			

Rev. 0: 2012-11-06 Page 6 of 8

## Response Strategies (cont'd)

STABILIZE the HAZARD	
Stop the leak:	
How and by who?	
Contain the release:	
e.g. dam/dike, boom, divert	
Ignition:	
e.g. Remove potential ignition source or intentionally ignite	
Prevent container failure:	
e.g. cool container, depressurize	
Take no action:	
EXTINGUISH IGNITED MATERIAL	
Remove fuel:	
Extinguish:	
e.g. chemical agent, remove oxygen	
Remove ignition source:	
Let substance burn:	
MITIGATE the HAZARD	
Apply agents:	
e.g. inhibit, dilute, neutralize, disperse	
and is there sufficient quantity, equipment and personnel?	
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Material displacement: e.g. transfer, flare, recover	
Remove uninvolved materials:	
e.g. other MOCs, vehicles	
Place barrier(s) to prevent impact:	

Rev. 0: 2012-11-06 Page 7 of 8

#### **Restoration Strategies**

CLEAN UP and RECOVERY
Assess Quantity Spilled & Area Affected: How will you know where it is? -detection, sampling, monitoring
Assess Environmental Impact: What are the issues? e.g. Safety, spill destination, wildlife How much has evapourated? How much natural degradation?
Clean-Up Technology: What is the most appropriate? What is available? e.g. Water wash, skim, vacuum trucks, bio-remediation, excavation  Work with authorities on remediation activities: Worker safety? Remediation activity requires
approval.  DISPOSAL
Comply with regulations: -treat/neutralize -incinerate -landfill
Due diligence: -reuse -reprocess -recycle

Rev. 0: 2012-11-06 Page 8 of 8