

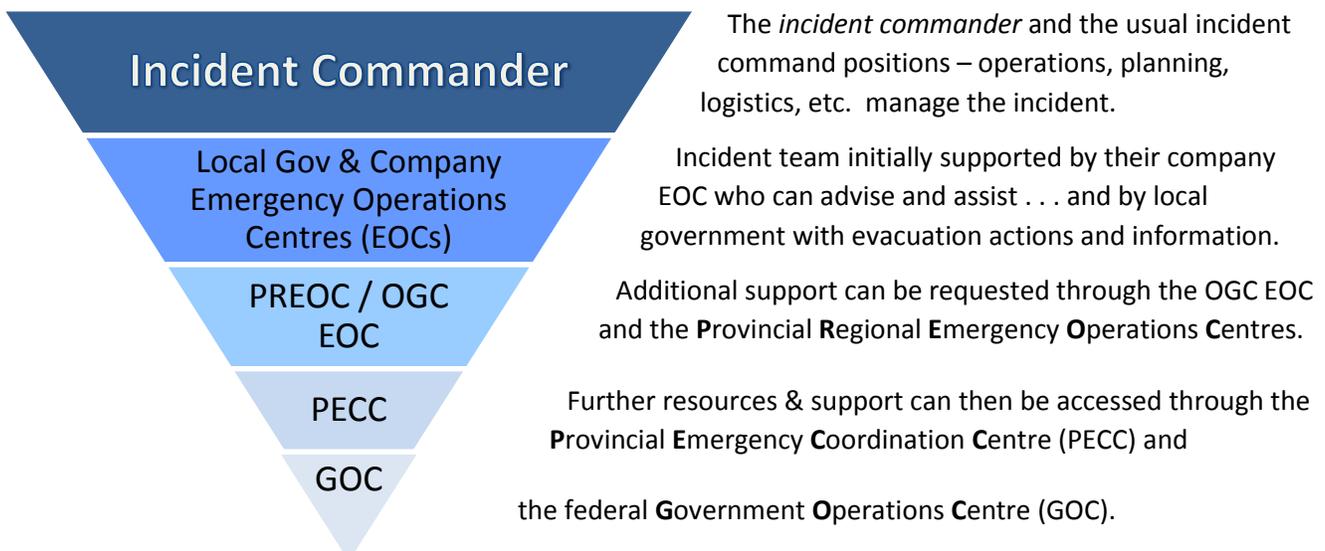
Natural Disasters and Emergency Management:

Applying Oil & Gas Emergency Response Planning and the Incident Command System to natural disasters

The Incident Command System (ICS) is a highly effective system designed to respond to emergency situations. Used in many countries including Canada and the USA, the ICS system used by oil and gas companies to manage spills, site fires and other emergencies can also be applied to natural disasters.

While the focus of activities, and the resources employed may be different during a natural disaster event, the basic ICS principles and processes do not change. And since all local governments are required to develop their emergency management plans using ICS, the terminology and position responsibilities will be familiar to any company incident management team.

Overview of how a company incident command team can be supported during natural disasters:



Since natural disasters may not be visible from, or initially affecting your operations, you will need to rely on other agencies to provide you with the information you need to make effective and timely decisions. Through the ICS system, oil and gas operators can monitor, plan and act on key data in a timely, efficient and organized manner. A quick overview of how the company ICS may be employed during a natural disaster, and some considerations for various roles are outlined below:

- Incident commander** – Confirming staff availability – will key staff need to leave to take care of family also threatened?
 Communicating with corporate EOC – are they aware of the situation, and will they be actively monitoring? Should neighbours inside Emergency Planning Zones (EPZ) and local government be notified of actions you’re taking to secure your site(s)?
- Liaison Officer** – maintaining communications with outside agencies, such as local government and other emergency management organizations, provides updated information to your ICS team.
- Risk Management / Safety** – What are the current and future risks to staff and operations from the threat? What can be done to mitigate? If fires are threatening road closures, are there hazardous items that can / should be removed from sites? What new risks might the disaster have created for returning staff – heated fluids, undermined bridges, damaged power lines?



- **Planning** section head – Consider the potential requirements for, and impacts from staff evacuations, shut-in of operations, and possible mitigation measures to reduce the impact of a natural disaster – like getting sprinkler protection units to protect critical facilities, or locating a supply of sandbags for flooding. Are there field staff that may need to be recalled? Are any staff working in areas with poor communications, and what could be done to reach them?
- **Operations** – Consider what resources will be required to safely shut-in, what notifications need to be made, and understand that some usual resources – helicopters, heavy equipment, water trucks, etc. may already be committed to the incident by other agencies.
- **Logistics** – What special needs have to be met? If an evacuation is likely, are additional vehicles required, do the ones on site have full fuel tanks? Is a secondary location for the incident management team arranged, and is it still accessible?

Critical information: where does it come from during natural disasters?

- Emergency Management BC (EMBC) works closely with a number of agencies and organizations – such as the BC Oil and Gas Commission (Commission) - performing a vital role as information and resource coordinators during most emergency situations. Through EMBC, a wide range of experts are available – such as hydrologists with the River Forecast Centre, meteorologists from Environment Canada, and fire experts from Wildfire Management Branch (WMB) and the Fire Commissioner. Briefings and teleconferences may be separated into geographic areas, or by sectors to provide groups with the most relevant information; frequency of calls is determined by the speed at which the situation is evolving.
- Oil and gas related emergencies are coordinated with the Commission, who share critical updates with EMBC and other government organizations, and provide expert situational analysis of incidents. The Commission also supports coordinating calls with EMBC and other agencies to support industry awareness around natural and other disasters. Providing notice of these calls is one of the reasons why the Commission maintains an up-to-date contact list with emergency managers in all regulated companies.
- Forest fire response is led by WMB, part of the Forests, Range and Natural Resources ministry, who work closely with EMBC and other agencies, local governments, the Commission, etc. Briefings to industry about forest fires are coordinated through the Commission and EMBC. Urgent tactical information is provided directly to an affected site by WMB.
- Emergency declarations – local government (municipal or regional district) are typically the lead on declarations of emergencies within their jurisdictions, including evacuation zones. EMBC, the Commission and other emergency agencies, as well as media are informed when declarations are made, altered or rescinded. Tactical evacuations may be implemented by the local incident commander as necessary to ensure safety. Longer term evacuations are generally followed with a declaration by local authorities.

Key Contacts listed below, non-urgent / working hours on upper line, emergencies on bottom line

BC Oil and Gas Commission	Emergency Management BC	Wildfire Management
250-794-5230 or 250-794-5317	250-612-4172 (N.E. office)	250-565-6716 (PG Fire centre)
Emergency Contacts Below		
1-800-663-3456	1-800-663-3456	1-800-663-5555 (*5555 from cell)