

Greenhills Operations  
Dam Breach  
Emergency Operations Centre  
Tabletop Exercise  
*12 December 2013*

Summary Report

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## Purpose

On the 12<sup>th</sup> of December 2013, Greenhills Operations conducted an Emergency Operations Centre (EOC) tabletop exercise, part of the ongoing Greenhills Operations training and exercise program. Just Like Real Exercises Inc. was contracted to design and deliver the training.

The purpose of this Summary Report is to document the opportunities identified by the players for emergency response improvement.

## Exercise Details

### Purpose

The purpose of the tabletop exercise was to review the Tailings Pond and Settling Pond Dam Breach Emergency Response Plan to ensure GHO EOC preparedness to manage the GHO EOC level response to a tailings pond dam breach.

### Exercise Format

The exercise was conducted in a tabletop format defined as a *discussion-based exercise in which players discuss and explore the response to a theoretical emergency scenario in an informal, stress-free environment.*

### Exercise Outline – Operational Period #1

The exercise followed the standardized EOC initial action plan objectives and expected actions in the following table:

EOC EXERCISE OBJECTIVES	EXPECTED ACTIONS
<b>References</b>	<ul style="list-style-type: none"><li>• GHO Crisis Manual</li><li>• Tailings Pond Dam and Settling Pond Dam Breach Emergency Response Plan</li></ul>
1. Demonstrate the ability to set up the EOC.	<ul style="list-style-type: none"><li>• Sign-in procedures completed</li><li>• Functions assigned and an organizational chart posted</li><li>• Situation boards/templates hung</li><li>• Telephones, radios, computers and copy machines operational</li><li>• EOC forms located and ready for use</li></ul>

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	<ul style="list-style-type: none"> <li>• EOC procedures and checklists reviewed</li> <li>• Position logs started</li> </ul>
2. Make contacts	<ul style="list-style-type: none"> <li>• Establish contact with the incident commander <ul style="list-style-type: none"> <li>○ Use appropriate forms to record information</li> <li>○ Identify immediate incident support actions</li> <li>○ Identify who needs to carry out support tasks</li> <li>○ Use appropriate forms to record and action support requests</li> </ul> </li> <li>• Identify and contact cooperating agencies <ul style="list-style-type: none"> <li>○ Pass relevant information</li> <li>○ Gather relevant information</li> </ul> </li> <li>• Identify and contact assisting and cooperating agency information officers <ul style="list-style-type: none"> <li>○ Coordinate media release intentions</li> </ul> </li> </ul>
3. Demonstrate the ability to display and analyze relevant event/incident information in the EOC.	<ul style="list-style-type: none"> <li>• Planning Liaison posts relevant information on the situation board</li> <li>• Information is analyzed and human, financial and environmental consequences identified <ul style="list-style-type: none"> <li>○ Courses of action developed</li> </ul> </li> <li>• Key public information is identified <ul style="list-style-type: none"> <li>○ Messaging is developed</li> <li>○ Methods of information distribution assessed and selected</li> <li>○ Spokespersons identified and prepared</li> </ul> </li> </ul>
4. Demonstrate the ability to identify	<ul style="list-style-type: none"> <li>• Conduct a management team briefing</li> </ul>

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EOC priorities	<ul style="list-style-type: none"><li>○ Status reports prepared</li><li>○ Briefing conducted</li><li>○ EOC priorities identified</li><li>● Action Plan written<ul style="list-style-type: none"><li>○ Meeting with relevant functional areas conducted</li><li>○ Tasks assigned</li></ul></li><li>● Action Plan approved</li><li>● Execution of the action plan monitored for effectiveness</li></ul>
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### Exercise Startex Narrative

The end of November began with significant snowfall amounts across the Elk Valley and South Country. By the 4<sup>th</sup> of December, a total of 140 cm of heavy wet snow blanketed the area. On the 6<sup>th</sup> of December, a significant warming trend began, forecasted to last for eight days. The freezing level rose dramatically and by the 8<sup>th</sup> the MOE River Forecast Group was warning that streams and rivers in the Elk Valley could potentially be running at full capacity by the 11th.

During a routine inspection on the morning of the 12th to monitor increasing levels in the Main and West Tailings Dams, seepage was noted below the top of the Main dam structure. The Road Crew implemented routine maintenance procedures to deal with the situation, however, the situation continued to worsen with more and more sediment noted in the seepage. By 1145, slumping of the dam crest was noted above the seepage. The Road Crew foreman alerted the Senior Manager on-call management of a potential flood emergency.

## Exercise Play

### Step 1: Activating the EOC

#### Problem Statements, Tasks, Questions

<b>Objective</b>	Demonstrate the ability to activate the EOC to the appropriate level.
<b>Expected actions</b>	<ul style="list-style-type: none"><li>• Sign-in procedures completed</li><li>• Functions assigned and an organizational chart posted</li><li>• Situation boards/templates hung</li><li>• Telephones, radios, computers and copy machines operational</li><li>• EOC forms located and ready for use</li><li>• EOC procedures and checklists reviewed</li><li>• Position logs started</li></ul>
<b>Problem Statement(s)</b>	<ul style="list-style-type: none"><li>• Nil</li></ul>
<b>Tasks</b>	<ul style="list-style-type: none"><li>• Review activation policies and procedures for completeness.</li><li>• Determine if the assigned facility is sufficiently equipped to perform the roles of an EOC.</li></ul>
<b>Questions</b>	<ul style="list-style-type: none"><li>• Should the GH0 EOC be activated?</li><li>• Who has the authority to activate the GH0 EOC?</li><li>• At what level should the EOC activate?</li><li>• Who is required in the EOC?</li><li>• What are the call-out procedures?</li><li>• Which positions need to be filled immediately?</li><li>• What back-up EOC activation plans are in place should the primary EOC activation be impractical?</li></ul>

## Step 2: Making Contacts

<b>Problem Statements, Tasks, Questions</b>	
<b>Objective</b>	Identify and make contacts
<b>Expected action(s)</b>	<ul style="list-style-type: none"> <li>• Establish contact with the incident commander               <ul style="list-style-type: none"> <li>○ Use appropriate forms to record information</li> <li>○ Identify immediate incident support actions</li> <li>○ Identify who needs to carry out support tasks</li> <li>○ Use appropriate forms to record and action support requests</li> </ul> </li> <li>• Identify and contact stakeholder agencies               <ul style="list-style-type: none"> <li>○ Pass relevant information</li> <li>○ Gather relevant information</li> </ul> </li> <li>• Identify and contact assisting and cooperating agency information officers               <ul style="list-style-type: none"> <li>○ Coordinate media release intentions</li> </ul> </li> </ul>
<b>Problem Statement(s)</b>	<ul style="list-style-type: none"> <li>• Consider a primary communications failure.</li> </ul>
<b>Tasks</b>	<ul style="list-style-type: none"> <li>• List the essential elements of information required from the Incident Commander and stakeholder agencies.</li> <li>• Review the list of stakeholders against the contact list to ensure completeness.</li> </ul>
<b>Questions</b>	<ul style="list-style-type: none"> <li>• What is the procedure for gathering information from the Incident Commander?</li> <li>• What immediate support to the incident commander might be expected?</li> <li>• What stakeholder contacts need to be made and who makes those calls?</li> <li>• What information needs to be exchanged?</li> <li>• What is the procedure for recording and sharing information within the EOC?</li> </ul>

### Step 3: Developing Situational Awareness

<b>Problem Statements, Tasks, Questions</b>	
<b>Objective</b>	Demonstrate the ability to display and analyze relevant event/incident information in the EOC.
<b>Expected action(s)</b>	<ul style="list-style-type: none"> <li>• Planning Liaison posts relevant information on the situation boards</li> <li>• Information is analyzed and human, financial and environmental consequences identified <ul style="list-style-type: none"> <li>○ Courses of action developed</li> </ul> </li> <li>• Key public information is identified <ul style="list-style-type: none"> <li>○ Messaging is developed</li> <li>○ Methods of information distribution assessed and selected</li> </ul> </li> <li>• Spokespersons identified and prepared</li> </ul>
<b>Problem Statement(s)</b>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>
<b>Tasks</b>	<ul style="list-style-type: none"> <li>• Conduct an advance planning drill, reviewing plans or completeness.</li> <li>• Develop Crisis Information messaging</li> </ul>
<b>Questions</b>	<ul style="list-style-type: none"> <li>• What types of information displays are required?</li> <li>• What functions must the Planning Section carry out and is there sufficient staff for the workload?</li> <li>• What are the human, financial or environmental consequences of the incident that must be managed by the EOC?</li> <li>• What are the key messages that should be developed to inform the public?</li> </ul>



## Step 4: Preparing the Action Plan

### Problem Statements, Tasks, Questions

<b>Objective</b>	Demonstrate the ability to identify EOC priorities
<b>Expected action(s)</b>	<ul style="list-style-type: none"><li>• Conduct a management team briefing<ul style="list-style-type: none"><li>○ Status reports prepared</li><li>○ Briefing conducted</li><li>○ EOC priorities identified</li></ul></li><li>• Action Plan written<ul style="list-style-type: none"><li>○ Meeting with relevant functional areas conducted</li><li>○ Tasks assigned</li></ul></li><li>• Action Plan approved</li><li>• Execution of the action plan monitored for effectiveness</li></ul>
<b>Problem Statement(s)</b>	<ul style="list-style-type: none"><li>• Nil</li></ul>
<b>Tasks</b>	<ul style="list-style-type: none"><li>• Describe the process for developing EOC priorities for the next operational period.</li><li>• Identify the EOC priorities for the next operational period and draft the Action Plan.</li></ul>
<b>Questions</b>	<ul style="list-style-type: none"><li>• Nil</li></ul>

## Hot Wash

The following items were identified by the players as opportunities for enhancing emergency preparedness:

1. Review the equipment, access and availability of response plans at the Boiven site.
2. Establish a base radio in the GHO EOC.
3. Consider installing multi-phone jacks in the GHO EOC.
4. Put journaling books in the GHO EOC kit.
5. Consider preparing contact lists by event.
6. Consider preparing event-based checklists.
7. Put tailing pond maps on the back of doors in the GHO EOC.
8. Review the use of white boards.
9. Review the response plans to ensure proper guidelines if the event begins at a level higher than the first steps in the plan.
10. Consider the need to provide an assistant to the Dispatch position during an emergency.
11. Consider posting a daily agenda during GHO EOC activation.
12. Consider further developing inundation mapping.
13. Review communications methods in the event of a fibre optic cable failure.