

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 1 of 24

1.0 PURPOSE AND SCOPE

This procedure outlines the generic response to spills of any sort (e.g. fuel, effluent, sewage, chemical). This generic procedure will form the basis for each facility and camp, and the checklist may have to be updated for each facility to take into account the individual requirements.

A non-conformance corrective action form (Proc 4.5.2 Sys CAR Form1) must be completed for every spill. An incident report form may be used to provide supplementary information where necessary, and is appended as OP 031 Form 1.

2.0 RESPONSIBLE PERSON

The responsible person for spills will vary depending upon the facility. The responsible person in the field is normally the Project Geologist or Camp Manager. Please see section 4.2 below.

3.0 SUMMARY

Most of DBCEI's exploration activities take place in remote areas. However, the effect of even a minor spill may have a wide-reaching effect on wildlife, flora, and communities considerably removed from the spill itself. It is very important that all reasonable care be taken to prevent spills. It is the responsibility of every employee and contractor working on a DBCEI site to know what to do and how to respond to an emergency such as a spill. If a spill should unfortunately occur, it is essential that **the following key steps be undertaken as rapidly and safely as possible**.

1. Ensure the safety of all persons at all times.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 2 of 24

2. Find and identify the spill substance and its source, and, if possible, stop the process or shut off the source.
3. Inform the immediate supervisor or his/her designate at once, so that he/she may take appropriate action. (Appropriate action **includes** the **notification of a government official**.) **IF IN DOUBT, REPORT ANY SPILL TO THE APPROPRIATE HOT LINE.**
4. Contain the spill or environmental hazard, as per its nature, and as per the advice of the Spill Line and Environmental Advisers, as required.
5. Implement any necessary cleanup or remedial action.

Important telephone numbers follow this summary first for company officials, secondly for spill reporting. Details for the procedure are found after the telephone numbers.

A PERSON REPORTING A SPILL SHALL GIVE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:

- (a) date and time of spill;
- (b) location of spill;
- (c) direction spill is moving;
- (d) name and phone number of a contact person close to the location of spill;
- (e) type of contaminant spilled and quantity spilled;
- (f) cause of spill;
- (g) whether spill is continuing or has stopped;
- (h) description of existing containment;
- (i) action taken to contain, recover, clean up and dispose of spilled contaminant;
- (j) name, address and phone number of person reporting spill;
- (k) name of owner or person in charge, management or control of contaminants at time of spill.

No person shall delay reporting a spill because of lack of knowledge of any of the factors listed above.

PREPARED BY: J. A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 3 of 24

TABLE 1: EMERGENCY CONTACT TELEPHONE NUMBERS

Name	Title	Work #	Cell #	Home #
Joe Joyce	President & CEO	416-423-5811 X 257	416-697-6350	416-449-7603
Jonathan Fowler	Chief Geologist-Projects	416-423-5811 X 258	905-520-6179	905-634-0248
Wolf Skublak	Exploration Manager	416-423-5811 X 247	N/A	905-475-2907
Peter Williamson	Manager— Technical Services	416-423-5811 X 224	416-988-1015	416-203-9290
Don Boucher	Divisional Manager (East)	705-674-3712	705-665-5346	705-525-0712
Todd McKinlay	Divisional Manager (West)	867-766-7301	867-873-1597	867-873-6027
Brad Wood	Project Manager Victor	416-463-9642 Victor Camp	705-688-2804	705-524-9530
Dwayne Thomson	Treatment Supervisor—Sudbury	705-674-3712	416-809-7535	TBA
Alistair Skinner	Treatment Supervisor—Grande Prairie	780-538-2119	780-831-8981	780-539-0915
Imad Khoury	Building Supervisor-Toronto	416-423-5811 X 246		905-686-4047

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 4 of 24

TABLE 2: GOVERNMENT SPILLS AGENCY TELEPHONE NUMBERS

Government Agencies

Alberta	Alberta Public Safety Services	1-800-272-9600
	Environment Alberta	1-800-222-6514
British Columbia	Ministry of Environment	1-800-665-7027
Manitoba	Central Switchboard	204-944-4888
Saskatchewan	General Inquiries	1-800-667-7135
	Spill Report Centre	1-800-667-7525
Quebec	Environmental Emergency Number	418-643-4595
	Energy, Mines Resources Number	1-800-561-1616
Newfoundland	Environmental Emergency Number	1-800-563-2444
Nova Scotia	Environmental Emergency Number	1-800-565-1633
New Brunswick	Emergency Measures Number	1-800-561-4034
Ontario	Spill Reporting	1-800-268-6060
Prince Edward Island	Environmental Emergency Number	1-800-565-1633
	Rescue and Environmental Response	902-368-0204
Northwest Territories }	Mine Site and Exploration Site Accidents	867-873-4412
Nunavut }	Outside Business Hours (cell phone)	867-873-0123
Yukon	Gov't of Canada - Oil and Chemical Spills	867-667-7244

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 5 of 24

4.0 PROCEDURE

4.1 INTRODUCTION

This Generic Spills Contingency Plan for De Beers Canada Exploration Inc. (DBCEI) forms the core for individual spill contingency plans for large advanced exploration and/or evaluation programmes. The outline given here is intended for use in all field camps. It is accepted that larger or more complex projects may require an amended and / or expanded version to refer to the specific needs of the respective project.

The Chief Geologist – Projects is responsible for ensuring that the “Spills Hot Line” numbers shown in Table 2 are checked and updated every six months.

A non-conformance corrective action form (Proc 4.5.2 Sys CAR Form1) must be completed for every spill. An ‘Incident Report Form’ may be used to provide supplementary information where necessary, and is appended as OP 031 Form 1. Instructions on how to complete the Proc 4.5.2 Sys CAR Form 1 are found in WID 002.

Planning for an emergency situation is an obligatory activity for the company. Contingency Plans are to be posted in every camp and facility in Canada, and copies are also to be distributed to supervisory personnel for dissemination to staff and provided to contractors at the time that tenders are requested for contracts.

The following are the materials that could be the source of a spill for DBCEI:

- ◆ Petroleum products
- ◆ Hazardous chemicals (domestic cleaners and de-greasers)
- ◆ Grey water
- ◆ Sewage
- ◆ Process effluent
- ◆ Drill water
- ◆ Drill cuttings

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 6 of 24

- ◆ Processed kimberlite
- ◆ Process undersize material
- ◆ Radioactive sources (as used by contractors)

Spill kits are present at areas where fuel is transferred or stored at DBCEI camps. The number of kits, pads, absorbents and bales of peat for making berms are to be replenished as and when required.

4.2 RESPONSIBILITIES FOR RESPONDING TO SPILLS

Project Geologist

Responsibilities

Assume authority over the spill scene and personnel involved.
 Activate the Contingency Plan.
 Appoint a spill Response Coordinator
 Report, or direct Response Coordinator to report, the Spill Report Line
 Report to the Project Manager and provide recommendations on resource requirements (such as additional personnel or equipment) in order to complete the cleanup, if required.

Response Coordinator (appointed by Project Manager/Project Geologist)

Responsibilities

Assume all duties of co-ordinating on-site response, including mobilisation of additional personnel, equipment and materials, as delegated by the Project Geologist.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 7 of 24

Project Manager

Responsibilities

Give advice/assistance to Project Geologist, as required.

Liaises with DBCEI management and staff at Toronto head office and divisional office, as required.

Occasionally, the Project Manager may fill in for the Project Geologist on site. In such case, he assumes all responsibilities for emergency response on site.

Divisional Manager

Responsibilities

Occasionally, the Divisional Manager may fill in for the Project Geologist on site. In such case, he assumes all responsibilities of that role.

As Divisional Manager, co-ordinates the divisional office involvement. Acts as chief spokesperson with government agencies, media and public, as appropriate.

Land Use Adviser

(Where one is appointed)

Responsibilities

Liaises with camp staff, regulators, environmental advisers, aboriginal communities and materials suppliers, etc., as required, to ensure compliance with regulatory requirements and receptive response to community concerns.

Documents cause of the spill and effectiveness of the cleanup. Ensures implementation of the appropriate measures to prevent a recurrence.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 8 of 24

Project Personnel (Lead Camp Attendant and Supporting Attendant(s), Field Geologists, or persons on hand

Responsibilities Assume response duties, as assigned by Project Geologist, an Alternate Project Geologist and/or the Response Coordinator.

Office Facility Co-ordinator

Responsibilities Liaises with camp staff, regulators, environmental advisers, aboriginal communities and materials suppliers, etc., as required, to ensure compliance with regulatory requirements and receptive response to community concerns.
Documents cause of the spill and effectiveness of the cleanup. Ensures implementation of the appropriate measures to prevent a recurrence.

4.3 BASIC STEPS – SPILL PROCEDURE

No spill or incident is so minor that it can be ignored. Rapid response to a spill is essential.

In case of a spill:

1. Ensure the safety of all persons at all times;
2. Find and identify the spill substance and its source, and, if possible, stop the process or shut off the source;

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 9 of 24

3. Appoint a Response Coordinator;
4. Inform the immediate supervisor or his/her designate at once, so that he/she may take appropriate action. (Appropriate action includes the notification of a government official) –**See Check List CL 008 for what to report;**
5. Contain the spill or environmental hazard, as per its nature, and as per the advice of the Spill Line and Environmental Advisers, as required;
6. Implement any necessary cleanup or remedial action.
7. **REMEMBER THAT MOST PETROLEUM PRODUCTS ARE HIGHLY VOLATILE, PARTICULARLY IN HOT WEATHER. THERE IS A HIGH PROBABILITY THAT A NAKED FLAME OR SPARK COULD SET OF A VAPOUR EXPLOSION.**
8. Complete the "Safety Health and Environmental Incident/Non Conformance Corrective Action Report" (PROC 4.5.2 SYS Form 1) and, if required, an "Incident Report Form" (OP 031).

Basic Steps – Chain of Command

On discovering a spill a chain of command, with allocated actions, is established as described below.

1. Immediately notify the Project Geologist or Alternate Project Geologist of any spill. He/she then appoints a Response coordinator.
2. Response coordinator or his/her designate then contacts the 24-Hour Spill Line, if warranted. For numbers, see schedule.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 10 of 24

3. A Proc 4.5.2 Sys CAR Form 1 ("Spill Report Form") is filled out as completely as possible before or as soon after contacting the 24-Hour Spill Line as practical. If required, an Incident Report Form should be also be filled out as completely as possible.
4. Other members of the team are notified, such as Project Manager, Regional Manager, Land Use Advisor.

If the spill is minor (such as dripping of fuel during transfer, which can be absorbed by padding, absorbent crystals, etc.), then, for the NWT, and Nunavut the Land Use Advisor in Yellowknife is notified by phone or fax. For other areas, the Chief Geologist – Projects in Toronto is notified by phone or fax.

Mitigative Measures after the fact

1. First steps to take when a spill occurs:
 - a) Ensure your own safety and that of others around you, beginning with those nearest to the scene.
 - b) Control danger to human life, if necessary.
 - c) Identify the source of the spill.
 - d) Notify the Project Geologist, as soon as is practical; he in turn notifies the Response Coordinator.
 - e) Assess whether or not the spill readily can be stopped.
 - f) Contain or stop the spill at the source, if possible, by following these actions:
 - i. If filling is in progress, STOP AT ONCE.
 - ii. Close or shut off valves.
 - iii. Place plastic sheeting at the foot of the tank or barrel to prevent seepage into the ground or runoff of fuel.
 - iv. Use absorbent materials (sheets, pads, booms) to absorb and contain the fuel spill.
 - v. Use a patch kit to seal leaks, if practical to do so.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 11 of 24

2. Secondary steps to take :

- a) Determine status of the spill event.
- b) If not reported under 1.d), report incident and steps taken to the Project Geologist, who in turn informs the Response Coordinator.
- c) If necessary, pump fuel from a damaged and/ or leaking tank or drum into a refuge container.
- d) Notify the 24-hour Spill Report Line, and receive further instructions from the appropriate contact agencies listed in Table 2 (e.g., disposal of contaminated soil or ice/snow in sealed containers for removal from site, etc.)
- e) Complete and Fax a copy of the forms for reporting a spill (Proc 4.5.2. Sys Form 1 and OP 031 Incident Report Form).
- f) Notify permitting authorities.
- g) If possible, resume cleanup and containment.

4.4 FUEL SPILLS ON LAND

"Land" may be defined as soil, gravel, sand, rock and vegetation. Advice on spill containment and cleanup may be obtained from the 24-Hour Spill Line and/or from DBCEI environmental advisers.

4.4.1 Procedure for Spills on Rock

For hydrocarbon spills on rock outcrops, boulder fields, etc. :

1. Response Coordinator or his designate obtains plastic tarp(s) and absorbent sheeting on-site.
2. A berm of peat, native soil or snow is constructed down-slope from the seepage or spill.
3. The tarp is placed in such a way that the fuel can pool for collection and removal (e.g., at the foot of the berm.) If there is a large volume of

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 12 of 24

spilled product, pump the liquid into spare empty drums for sealing and disposal at the incinerator or approved facility.

4. Absorbent sheeting is placed on the rock to soak up spilled oil, gasoline, etc.
5. Saturated sheeting is disposed of in an empty drum, which is then labelled and sealed. Alternatively, the pads may be wrung out into the empty drum(s); the drums marked and then secured for eventual incineration or disposal of the spill substance to an approved facility. The pads may be reused.
6. The disposal container is then transported to the on-site incinerator or to an approved disposal facility.
7. Depending on the nature and volume of the spill, the 24-Hour Spill Line may be contacted after Step 4 or after Step 5.

4.4.2 Procedure for Spills on Land

1. Response Coordinator or his designate obtains plastic tarp(s), absorbent sheeting, "Spagh-zorb" or other ultra-dry absorbent and any other necessary spill containment equipment, pump, hoses, etc.
2. A berm of peat, native soil or snow is constructed down-slope of the seepage or spill.
3. The tarp is placed in such a way that the fuel can pool for collection and removal (e.g., at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums, and dispose of product by burning in the incinerator or by transporting to an approved solid waste disposal facility.
4. Applying a thin dusting of "Spagh-Zorb" or other ultra-dry absorbent to the groundcover may control petroleum-product sheening on vegetation.
5. Contact the 24-Hour Spill Line. Receive instruction from the appropriate contact agencies listed in Annexure 'A' regarding collection of the contaminated soil or vegetation, its removal and site cleanup/restoration.
6. Depending on the nature and volume of the spill, Response Coordinator or his designate implements the spill action plan.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 13 of 24

4.3 FUEL SPILLS ON WATER

4.3.1 Procedure for Spills on Water

It is important to limit immediately the extent of spills. The following is the procedure to be implemented when an incident occurs:

1. If the spill is small, deploy hydrophobic (water-repellent) absorbent pads on water. Hydrophobic pads readily absorb hydrocarbons. Alternatively, an ultra-dry absorbent designed for use on water-based spills may be deployed.
2. If the spill is larger, ready several empty drums to act as refuge containers for the spill.
3. Deploy containment booms on the water surface to "fence in" the spill area gradually and to prevent it from spreading. Keep in mind those environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup.
4. Absorbent booms then can be deployed to encircle and then absorb any hydrocarbon spillage that may have escaped the containment boom.
5. Once a boom has been secured, a skimmer may be brought on-scene to aid in capture of the hydrocarbon; once captured, the product should be pumped to the empty fuel drums and held for disposal.
6. As soon as possible either during or after the incident contact the 24-Hour Spill Line. (This will ensure government agencies are informed.)
7. If the spill is sufficiently large, and cannot be contained by rapid action of personnel present, contact the Mobile Environmental Response Unit for assistance. (Weather permitting, this unit can be flown to an emergency spill site within several hours.)

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

<div><div>DE BEERS</div><div>A DIAMOND IS FOREVER</div></div> <div>De Beers Canada Exploration Inc.</div>		
SPILLS PROCEDURE		
OPERATING PROCEDURE 031	Page 14 of 24	

4.4 FUEL SPILLS ON SNOW AND ICE

By its nature, snow is an absorbent, and fuel spilled on snow is collected with relative ease, either by shovel, in the case of small-range spills, and by loader, in the case of more extensive spills.

4.4.1 Procedure for Spills on Snow

1. Assess the nature of the spill. Necessary equipment might include shovels, plastic tarp(s), empty drums, and loader.
2. Shovel or scrape contaminated snow and deposit in empty refuge drums. If the spill is more extensive, build peat-bale berms or compacted-snow berms with plastic over top, around the affected area.
3. Either during or immediately after the incident, notify the 24-Hour Spill Line. Receive instructions on the preferred disposal method (e.g., storage in sealed drums, incineration or deposit in a designated lined containment area on land) from the appropriate contact agencies listed in Section 4.4.

4.4.2 Procedure for Spills on Ice

Spills on ice are handled in similar fashion as those on snow. However, as ice presents the added danger of immediate access to water, care must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

1. Construct a compacted-snow berm around the edge of the spill area.
2. Although hard ice will retard or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (such as gravel) must be scraped from the ice surface and disposed of in an appropriate manner.
3. Contact the 24-Hour Spill Line. Receive disposal instructions (e.g., sealing in drums, burn off, etc.) from the appropriate contact agencies listed in Section 4.4. Where fuel or oil has escaped to the receiving

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 15 of 24

waters, also contact the 24-hour emergency line of the Mobile Environmental Response Unit.

4.5 PROCEDURE FOR CHEMICAL SPILLS

1. Assess the hazard of the spilled material. Members of the emergency-response team who might be susceptible in certain situations, (such as asthmatics, where fumes or airborne particles are evident), should be replaced with alternates.
2. Assemble the necessary safety equipment before response, (e.g., latex or other protective gloves, goggles or safety glasses, masks or breathers, etc.).
3. Apply absorbents to soak up liquids.
4. Place plastic sheeting over solid chemicals, such as dusts and powders, to prevent their disbursement by wind or investigation by birds or other mammals.
5. Neutralise acids or caustics. Place spilled material and contaminated cleanup supplies in an empty refuge drum and seal for disposal.
6. Contact the 24-Hour Spill Line. Receive instructions on disposal methods and designated locations from the appropriate contact agencies listed in Table 2 – Government Spills Agency Telephone Numbers.

4.6 PROCEDURE FOR CUTTINGS CONTAINMENT AREA SPILLS

Potential containment dam failures are to be addressed as quickly as possible. A spill resulting from the failure of a dam structure would PROBABLY require the construction of a cofferdam to contain the released material, while either temporary, or permanent repairs are completed on the failed structure. To minimise the seepage of kimberlite fines and drill wastewater, containment dams should be constructed of materials with low permeability, whenever possible.

Rebuilding the dam, or constructing a secondary dam with materials that are locally available would contain the spill. An esker would probably be the main proposed source of granular materials that may be used to affect repairs or construct secondary containment

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 16 of 24

structures. The use of a synthetic liner may be necessary, and this can be flown into the camp or brought in via winter access route. Liquid portions of the cuttings should be contained within berms or impoundment basins and pumped back to the containment area. Repairs to the failed structure would take place to standards acceptable to DBCEI, its geotechnical advisers, and applicable regulatory agencies. Qualified professional engineers must advise on the most appropriate method to (a) temporarily plug a breach containment facility and (b) effect a permanent repair.

4.7 FREE-BOARD LEVEL EXCEEDED AND OVERTOPPING OF THE DYKES

Containment facilities are designed and constructed to ensure adequate holding capacity for the projected waste volumes in conjunction with surface runoff produced, usually for a one-in-10 year storm event within the identified watershed. Design usually foresees a minimum two years' holding capacity with zero discharge, based on projected sample extraction volumes.

If the freeboard level is exceeded to an extreme that the liner is overtopped, then attempts will be made to collect water that was discharged by overtopping. Any processed kimberlite deposited in the valley downstream of the basin would be returned to the containment pond using the on-site pumps and heavy equipment. A sump would be excavated in the area that received the discharge. Any water that collects in the sump would be pumped back into the containment pond. Pumping would continue until it can be demonstrated that the water quality is consistent with permitted discharge criteria.

4.7.1 Excessive Seepage

Excessive seepage can be detected as visible seeps on the downstream face of the dyke, or ponded water near the downstream toe of the dyke. Ponded

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 17 of 24

water adjacent to the dyke does not necessarily indicate excessive seepage. The excavation of an interception ditch or sump in the affected area should collect seepage. An engineered sump is usually constructed downstream of a containment facility. Water that collects in the sump should be pumped back into the containment pond if it does not meet established discharge criteria. Clean water observed at the toe of the dykes does not constitute an adverse environmental impact and can be released into the environment provided the latter is protected from erosion or, in the case of palsa and tundra, from thaw-settlement.

4.7.2 Catastrophic Failure

The environmental impact of a hypothetical worst-case failure scenario must be considered should a dyke fail. The risk of catastrophic failure by slope instability or washout is extremely remote. Such a failure could result in rapid release of turbid water. Although highly improbable, should a catastrophic failure occur, water would be released into the immediate terrain. Turbid water would reach probably reach a lake resulting in a temporary sediment plume that would settle and self clarify with time. Any processed kimberlite deposited downslope from a failed containment facility could be recovered and returned to the containment pond.

4.8 SPILL EQUIPMENT

Complete spill kits are to kept on hand at several locations where spills can potentially occur: drill sites, bulk fuel storage area, drums storage area, and on the ice airstrip where fuel is pumped. Additional kits, as well as other response supplies such as plastic sheeting and tarps, bales of peat and absorbents, and extra spill pads, are kept in the maintenance shop.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 18 of 24

4.9 RADIOACTIVE SOURCES

Contractors may use radioactive sources from time to time as part of a down-the-hole geophysical logging exercise. It is possible that one of these probes containing a radioactive source may become irretrievably stuck or lost down a drill hole. If this should happen, the contractor **must** immediately notify the appropriate authority indicated on the radioactive source licence accompanying the probe, and consult with these authorities on an appropriate course of action. The loss or release of any amount of radioactive material is a reportable spill.

Where a radioactive source is lost down the hole, the drill log and the geophysical log must be clearly annotated with this information (depth lost, source type, date of loss etc.).

5.0 TRAINING AND PRACTICE DRILLS

5.1 TRAINING

All employees are candidates for a Response Team with the exception of the environmental consultant advisers. Employees must be familiar with the spill response resources at their respective facility or camp (including the location and how to access the supplies), this Contingency Plan and appropriate spill response methods. Involvement of other employees may be required, from time to time (e.g., those designated to handle fuels).

This familiarity will be acquired through:

1. Initial or refresher training, as appropriate, provided once per field season.
2. Regular inventory updates are provided in list form to all team members. Information to be reported includes listing of all resources, number of items, their location, condition, date of last inspection and any special comments (such as expiry dates, under whose authority they may be accessed and special handling instructions).

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 19 of 24

5.2 PRACTICE DRILLS

DBCEI is aware that without practice, no Contingency Plan has value.

As noted above, at least one practice drill will be held during each field season to give personnel a chance to practice emergency response skills. Biodegradable food colouring will be used to colour water to act as a "hazardous fluid" to be used in spills exercises.

Each practice will be evaluated and a report prepared with the objective of learning where gaps and deficiencies (either in skills or physical resources) exist, and in what areas more practice is required.

Upon completion of each drill and report, procedures are to be reviewed, and where necessary, modified to make improvements. Any improvements must be documented, and circulated to the Chief Geologist - Projects.

Note:

A SPILL CONTINGENCY PLAN FOR A FACILITY MUST CONTAIN THE FOLLOWING INFORMATION:

- (a) the name, address and job title of the owner or person in charge, management or control;
- (b) the name, job title and 24-hour telephone number for the persons responsible for activating the spill contingency plan;
- (c) a description of the facility including the location, size and storage capacity;
- (d) a description of the type and amount of contaminants normally stored at the location described in paragraph (c);
- (e) a site map of the location described in paragraph (c);
- (f) the steps to be taken to report, contain, clean up and dispose of contaminants in the case of a spill;
- (g) the means by which the spill contingency plan is activated;
- (h) a description of the training provided to employees to respond to a spill;

PREPARED BY: J. A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 20 of 24

- (i) an inventory of and the location of response and clean-up equipment available to implement the spill contingency plan;
- (j) the date the contingency plan was prepared . .

This spill contingency plan was prepared by:

Dr. J.A. Fowler
Chief Geologist – Projects/ Environmental Management Representative
De Beers Canada Exploration Inc. ,
One William Morgan Drive Toronto, Ontario
M4H 1N6

Work: +1 416-423-5811 Ext. 258.
Home +1 905-634-0248

Date of Preparation: 26 June 2001 .

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 21 of 24

Schedule 1

TABLE OF MINIMUM REPORTABLE AMOUNTS FOR SPILLS BY JURISDICTION

Jurisdiction	Compressed gas	Flammable liquids	Corrosive substances	Environmentally hazardous substances	Dangerous wastes	Other contaminants
Alberta	100 ℓ	200 ℓ	>1kg	>1kg	>5ℓ	100ℓ /100 kg
British Columbia	10 kg	100 ℓ	>1kg	>1kg	>5ℓ	100ℓ/100 kg
Manitoba	100 ℓ	100 ℓ	5 ℓ /5kg	1 ℓ / 1 kg	5 ℓ /5kg	100 ℓ / 100 kg
Northwest Territories	100 ℓ	100 ℓ	5 ℓ /5kg	1 ℓ / 1 kg	5 ℓ /5kg	100 ℓ / 100 kg
Nunavut	100 ℓ	100 ℓ	5 ℓ /5kg	1 ℓ / 1 kg	5 ℓ /5kg	100 ℓ / 100 kg
Ontario	*3	*3	*3	*3	*3	*3
Quebec	*3	*3	*3	*3	*3	*3
Saskatchewan	100 ℓ	100 ℓ *1 200 ℓ *2	5 ℓ /5kg	1 ℓ / 1 kg	5 ℓ /5kg	100 ℓ / 100 kg

All radioactive spills must be immediately reported, however small.

*1 From containers/tanks off-site

*2 From containers/tanks on-site

*3 A spill is "any discharge into the natural environment that is abnormal in quality or quantity in light of all the circumstances of the discharge". Therefore report everything.

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 22 of 24

Schedule 2

Extract from: NWT: Spill Contingency Planning and Reporting Regulations, R-068-93

- (1) No person shall store contaminants in a facility where the storage capacity of the facility equals or exceeds the storage capacity shown in Schedule A unless a spill contingency plan has been prepared and filed in accordance with these regulations.
- (2) Where the storage capacity of a facility is less than the storage capacity shown in Schedule A and where, in the opinion of the Chief Environmental Protection Officer a spill contingency plan is necessary for the protection of the environment, the Chief Environmental Protection Officer may require the owner or person in charge, management or control of a facility to prepare a spill contingency plan.

- §7.** (1) The person responsible for preparing a spill contingency plan shall review the plan annually.
- (2) The person responsible for preparing a spill contingency plan shall, in writing, notify the Chief Environmental Protection Officer when a review under subsection (1) has been completed and shall immediately file with the Chief Environmental Protection Officer any changes made to the plan.

- §9.** (1) The owner or person in charge, management or control of contaminants at the time a spill occurs shall immediately report the spill where the spill is of an amount equal to or greater than the amount set out in Schedule B.
- (2) Where there is a reasonable likelihood of a spill in an amount equal to or greater than the amount set out in Schedule B, the owner or person in charge, management or control of the contaminants shall immediately report the potential spill.

PREPARED BY: J. A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 23 of 24

Schedule A

MINIMUM STORAGE CAPACITIES FOR MANDATORY FILING SPILL CONTINGENCY PLANS IN THE NWT

(1)	(2)	(3)
ITEM NO.	TYPE OF FACILITY	STORAGE CAPACITY
1.	Above ground facility	20,000 l or 20,000 kg
2.	Underground facility	4,000 l or 4,000 kg

Schedule B

MAXIMUM THRESHOLD FOR REPORTING SPILLS IN THE NWT i.e.

Everything greater than this amount **must** be reported, amounts less than this **may** be reported

ITEM NO.	TDGA CLASS	DESCRIPTION OF CONTAMINANT	AMOUNT SPILLED
1.	1	Explosives	Any amount
2.	2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 l
3.	2.2	Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 l
4.	2.3	Compressed gas (toxic)	Any amount
5.	2.4	Compressed gas (corrosive)	Any amount
6.	3.1, 3.2, 3.3	Flammable liquid	100 l
7.	4.1	Flammable solid	25 kg
8.	4.2	Spontaneously combustible solids	25 kg
9.	4.3	Water reactant solids	25 kg

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 03 July 2001
FORM NO.: OP 031	REVISION NO: 01	DATE OF REVISION: 12 October 2001

SPILLS PROCEDURE

OPERATING PROCEDURE 031

Page 24 of 24

10.	5.1	Oxidizing substances	50 l or 50 kg
11.	5.2	Organic Peroxides	1 l or 1 kg
12.	6.1	Poisonous substances	5 l or 5 kg
13.	6.2	Infectious substances	Any amount
14.	7	Radioactive	Any amount
15.	8	Corrosive substances	5 l or 5 kg
16.	9.1 (in part)	Miscellaneous products or substances excluding PCB mixtures	50 l or 50 kg
17.	9.2	Environmentally hazardous	1 l or 1 kg
18.	9.3	Dangerous wastes	5 l or 5 kg
19.	9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 l or 0.5 kg
20.	None	Other contaminants	100 l or 100 kg

PREPARED BY: J.A. Fowler

APPROVED BY: J. Joyce

DATE ISSUED: 03 July 2001

FORM NO.: OP 031

REVISION NO: 01

DATE OF REVISION: 12 October 2001

SPILL REPORTING CHECK LIST

CHECK LIST 008

Page 1 of 3

Refer to **OP 031 Spills Procedure** for details.

Contents

1. Actions to take.
2. What to report
3. When to report
4. Where to report

1. Actions to Take

1. Ensure the safety of all persons at all times.
2. Find and identify the spill substance and its source, and, if possible, stop the process or shut off the source.
3. Inform the immediate supervisor or his/her designate at once, so that he/she may take appropriate action. (Appropriate action **includes** the **notification of a government official.**) **IF IN DOUBT, REPORT ANY SPILL TO THE APPROPRIATE HOT LINE. (See table on page 3)**
4. Contain the spill or environmental hazard, as per its nature, and as per the advice of the Spill Line and Environmental Advisers, as required.
5. Implement any necessary cleanup or remedial action.

Important telephone numbers follow this summary first for company officials, secondly for Spill reporting. Details for the procedure are found after the telephone numbers.

2. What to Report

A PERSON REPORTING A SPILL SHALL GIVE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 115 July 2001
FORM NO.: CL009	REVISION NO: 00	DATE OF REVISION:

SPILL REPORTING CHECK LIST

CHECK LIST 008

Page 2 of 3

- (a) date and time of spill;
- (b) location of spill;
- (c) direction spill is moving;
- (d) name and phone number of a contact person close to the location of spill;
- (e) type of contaminant spilled and quantity spilled;
- (f) cause of spill;
- (g) whether spill is continuing or has stopped;
- (h) description of existing containment;
- (i) action taken to contain, recover, clean up and dispose of spilled contaminant;
- (j) name, address and phone number of person reporting spill;
- (k) name of owner or person in charge, management or control of contaminants at time of spill.

3. When to Report

As soon as possible

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 115 July 2001
FORM NO.: CL009	REVISION NO: 00	DATE OF REVISION:

SPILL REPORTING CHECK LIST

CHECK LIST 008

Page 3 of 3

4. Where to report

Spills Hotline Numbers

Government Agencies

Alberta	Alberta Public Safety Services	780-496-3950
British Columbia	Environmental Emergency	604-666-6100
Manitoba	Environmental Emergency	204-944-4888
Saskatchewan	Spill Report Centre	1-800-667-7525
Quebec	Environmental Emergency Number	418-643-4595
Newfoundland	Environmental Emergency Number	709-772-6220
Nova Scotia	Environmental Emergency Number	1-800-565-1633
Ontario	Spill Reporting	1-800-268-6060
Prince Edward Island	Environmental Emergency Number	1-800-565-1633
Northwest Territories	Mine Site and Exploration Site Accidents	867-873-4412
	Outside Business Hours (cell phone)	867-873-0123
Yukon	Gov't of Canada - Oil and Chemical Spills	867-667-7244

PREPARED BY: J.A. Fowler	APPROVED BY: J. Joyce	DATE ISSUED: 115 July 2001
FORM NO.: CL009	REVISION NO: 00	DATE OF REVISION: