



**BLUE HERON
ENVIRONMENTAL**


SPILLS/WATER VIOLATIONS AND REPORTING

CANECT WATER & WASTEWATER: REGULATION AND
COMPLIANCE COURSE
VAUGHAN, ONTARIO APRIL, 2024



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REGULATIONS RELATED TO SPILLS/DISCHARGES


Ontario 

Environmental Protection Act

- O. Reg. 224/07 Spill Prevention and Contingency Plans
- O. Reg. 675/98 Classification and Exemption of Spills

Ontario Water Resources Act

Pesticides Act



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REGULATIONS RELATED TO SPILLS/DISCHARGES



Fire Protection and Prevention Act

- O. Reg. 213/07 Fire Code

Technical Standards and Safety Act

- O. Reg. 217/01 Liquid Fuels Reg and Code
- O. Reg. 213/01 Fuel Oil Reg and Code
- O. Reg. 220/01 Boilers and Pressure Vessels Reg and Code
- O. Reg. 211/01 Propane Storage and Handling Reg and Code



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REGULATIONS RELATED TO SPILLS/DISCHARGES

Canada

Canadian Environmental Protection Act

- SOR/2019-51 Environmental Emergency Regulations (E2)

Federal Fisheries Act


- Sector-specific Effluent Regulations (Mining, Pulp and Paper, Meat and Poultry Plants, etc...)



Nuclear Safety and Control Act

- SOR/2000-207 Nuclear Substances and Radiation Devices Regulation

Transportation of Dangerous Goods Act

- SOR/2001-286 Transportation of Dangerous Goods Regulation



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SPILL DEFINITIONS

WHAT IS A "SPILL"?



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ONTARIO DEFINITIONS

WHAT IS A SPILL?

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ONTARIO ENVIRONMENTAL PROTECTION ACT

GENERAL PROHIBITIONS

14(1) Subject to subsection (2) but despite any other provision of this Act or the regulations, a person shall not **discharge** a **contaminant** or cause or permit the discharge of a contaminant into the **natural environment**, if the discharge causes or may cause an **adverse effect**.



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WHAT IS A SPILL?

ONTARIO ENVIRONMENTAL PROTECTION ACT

- **Discharge** of a **pollutant**
- Into the **natural environment**
- From (or out of) a container, vehicle, or structure
- That is abnormal in quality or quantity in light of all circumstances of the discharge.



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WHAT IS A SPILL?

ONTARIO ENVIRONMENTAL PROTECTION ACT

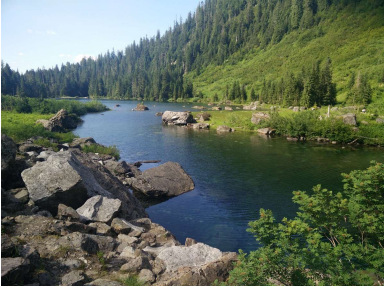

“Discharge” means:

- ✓ Add, Deposit, Leak or Emit

“Natural Environment” means:

- ✓ the air, land and water, or any combination or part thereof, of the Province of Ontario

→ **“land”** means surface land not enclosed in a building, land covered by water and all subsoil, or any combination or part thereof; (“terrain”)

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WHAT IS A SPILL?

ONTARIO ENVIRONMENTAL PROTECTION ACT

“Pollutant” means:

- ✓ **Contaminant** other than heat, sound, vibration or radiation. (ie: physical matter, solid, liquid, gas)

“Contaminant” means:

- ✓ any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them
- ✓ resulting directly or indirectly from human activities
- ✓ that causes or may cause an **adverse effect**




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WHAT IS AN ADVERSE EFFECT?

“Adverse effect” means one or more of,

- a) impairment of the quality of the natural environment for any use that can be made of it
- b) injury or damage to property or to plant or animal life
- c) harm or material discomfort to any person
- d) an adverse effect on the health of any person
- e) impairment of the safety of any person
- f) rendering any property or plant or animal life unfit for human use
- g) loss of enjoyment of normal use of property
- h) interference with the normal conduct of business



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WHAT IS AN EXCEEDANCE?

Exceedance means

- ✓ any **contaminant** in an amount, concentration or level in excess of that prescribed by the regulations



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WHERE IS THE ENVIRONMENT?

EPA & OWRA “Natural Environment” means:

- ✓ the air, land and water, or any combination or part thereof, of the Province of Ontario
- ✓ “land” means surface land not enclosed in a building, land covered by water and all subsoil, or any combination or part thereof
- ✓ “air” means open air not enclosed in a building, structure, machine, chimney, stack or flue
- ✓ “water” means surface water and ground water, or either of them
- ✓ OWRA “waters” means a well, lake, river, pond, spring, stream, reservoir, artificial watercourse, intermittent watercourse, ground water or other water or watercourse

Pesticides Act “Environment” means:

- ✓ natural environment, a building, structure, machine and vehicle, or any of them



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FEDERAL DEFINITIONS

WHAT IS A “SPILL/UNAUTHORIZED DISCHARGE”?



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FEDERAL FISHERIES ACT

GENERAL PROHIBITIONS

36(3) Subject to subsection (4), no person shall **deposit** or permit the deposit of a **deleterious substance** of any type in **water frequented by fish** or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.



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FEDERAL FISHERIES ACT

GENERAL PROHIBITIONS

“deposit” means any discharging, spraying, releasing, spilling, leaking, seeping, pouring, emitting, emptying, throwing, dumping or placing



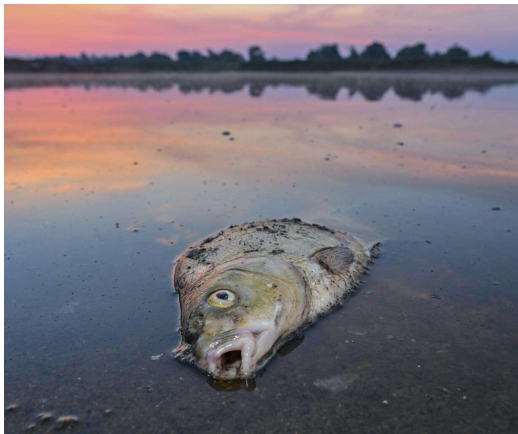
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FEDERAL FISHERIES ACT

GENERAL PROHIBITIONS



“Deleterious Substance”

- any substance that, if added to any water, would in any way degrade or alter its quality rendering it deleterious to fish or fish habitat OR
- Any water that contains a substance in such quantity or concentration, or that has been treated, processed or changed, it renders it deleterious to fish or fish habitat OR
- Any water that contains any substance or class of substances in a quantity or concentration that is equal to or in excess of that prescribed



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FEDERAL FISHERIES ACT

GENERAL PROHIBITIONS

“Water frequented by fish” means **Canadian fisheries waters**

“**Canadian fisheries waters**” means all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada





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WHAT IS A SPILL?



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WHAT IS A SPILL?

- Spills can be in various forms:

- Liquids
- Solids
- Gases

→ All of which can be considered **POLLUTANTS**



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LIQUID SPILLS AND DISCHARGES

Common Liquid Spills in Industry Include:

OIL AND FUEL
(hydrocarbons)



CHEMICALS



WATER
(above limits or containing deleterious substances)



SOLID SPILLS

Common Solid Spills, Emissions in Industry Include:

**WASTE
ROCK**



**DRY
CHEMICALS**



**CONTAMINATED
SOIL**



**FUGITIVE DUST,
LEAKING DUST
COLLECTOR BAGS**



GAS SPILLS

Common Gas Spills in Industry Include: Compressed gases (N₂, CO₂)
Refrigerants (CFC, HCFC, ODS), Natural gas, Propane, Volatile Liquids

AIR EMISSIONS



FUMES & VAPOURS



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SPILL IDENTIFICATION

Some spills are obvious...



STAINING



EMISSIONS



SHEEN





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SPILL IDENTIFICATION

What's the difference between...




AND



= Petroleum Spill

= Natural sheen caused by bacteria



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SPILL IDENTIFICATION

Some spills are not so obvious...



COLOURLESS GASES



WATER QUALITY EXCEEDANCES



RESERVOIR LEAKS or SEEPAGES



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SPILL IDENTIFICATION

How are spills identified?

- By any personnel – but requires training and clear “rules”
 - Reported as an “incident”
 - “Found” or observed
- Through formal or informal Inspections
 - By environmental staff or others
 - Scheduled and recorded
- Routine water, soil monitoring/sampling
 - Need to understand “triggers” or criteria for classifying something as a “spill”



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SPILL/DISCHARGE REPORTING



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SPILL REPORTING - INTERNAL

- By person discovering spill – as per site-specific criteria/protocols
- Verbal Report – immediately to designated person (24/7 coverage required)
- Written internal report – per site specific criteria
 - Standardized forms (**Hint:** use existing forms for incident reporting)
- Minimum information should include:

• Substance	• Time of discovery
• Source	• Cause (if known)
• Volume (estimate) or duration	• Actions taken to stop/clean-up
• Direction of flow	



Spill Report Form



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SPILL REPORTING


EXTERNAL



Spill Action Center (SAC)
1-800-268-6060

- **SAC** must be contacted verbally **FORTHWITH** after spill is discovered along with the local Municipality/Region and substance Owner
- Will satisfy the need to report to other agencies (as appropriate) (i.e. MECP, TSSA, Environment Canada)
- SAC will contact district MECP or other appropriate agency office for follow-up / investigation
- Courtesy Call: District Office Environment Officer






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EXCEEDANCE REPORTING

ONTARIO ENVIRONMENTAL PROTECTION ACT




Ministry to be notified when contamination exceeds permitted level

13 (1) Every person,

- (a) who discharges into the natural environment; or
- (b) who is the person responsible for a source of contaminant that discharges into the natural environment,

any **Contaminant** in an amount, concentration or level in excess of that prescribed by the regulations shall **forthwith** notify the Ministry of the discharge

**Spill Action Center (SAC)
1-800-268-6060**



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SPILL REPORTING


IF APPLICABLE, YOU MAY ALSO BE REQUIRED TO REPORT TO:


- MECP District (see ECA or other site-specific requirements)
- Police/Fire Department
- Adjacent property owners/companies
- Other “interested parties”:

 - Indigenous Communities
 - Special Interest Groups
 - Other?

- **Written** reports may be required within certain timelines
 - Upon request by MECP/ECCC/DFO, others?
 - Also see ECA and other permit requirements
 - Commitments in EAs or Agreements

**WHO SHOULD I NOTIFY
ABOUT A
SPILL?**





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O. REG. 675/98 - CLASSIFICATION AND EXEMPTION OF SPILLS

Regulation lists EXEMPTIONS from Reporting, including:

- Class X – Non-Reportable Spills
- Exempt from reporting provided that the spill:
 - Is defined as “non-reportable in a Spill Prevention and Contingency Plan (O. Reg. 224/07)
 - Does not enter waters
 - Was not deliberate
 - Has no adverse effects
 - Can be easily remediated **and is remediated**
- **BUT** records for non-reportable spills must be retained for 5 years

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O. REG. 675/98 - CLASSIFICATION AND EXEMPTION OF SPILLS



Regulation lists Reporting Requirements:

- Specifies Reporting to SAC
1-800-268-6060
- Coordinated Efforts between agencies (provincial and federal)
- To ensure all information that is required is available, utilize standard form for external reporting and only **TRAINED** personnel to report





External Spill Report Form

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EXTERNAL SPILL REPORTING

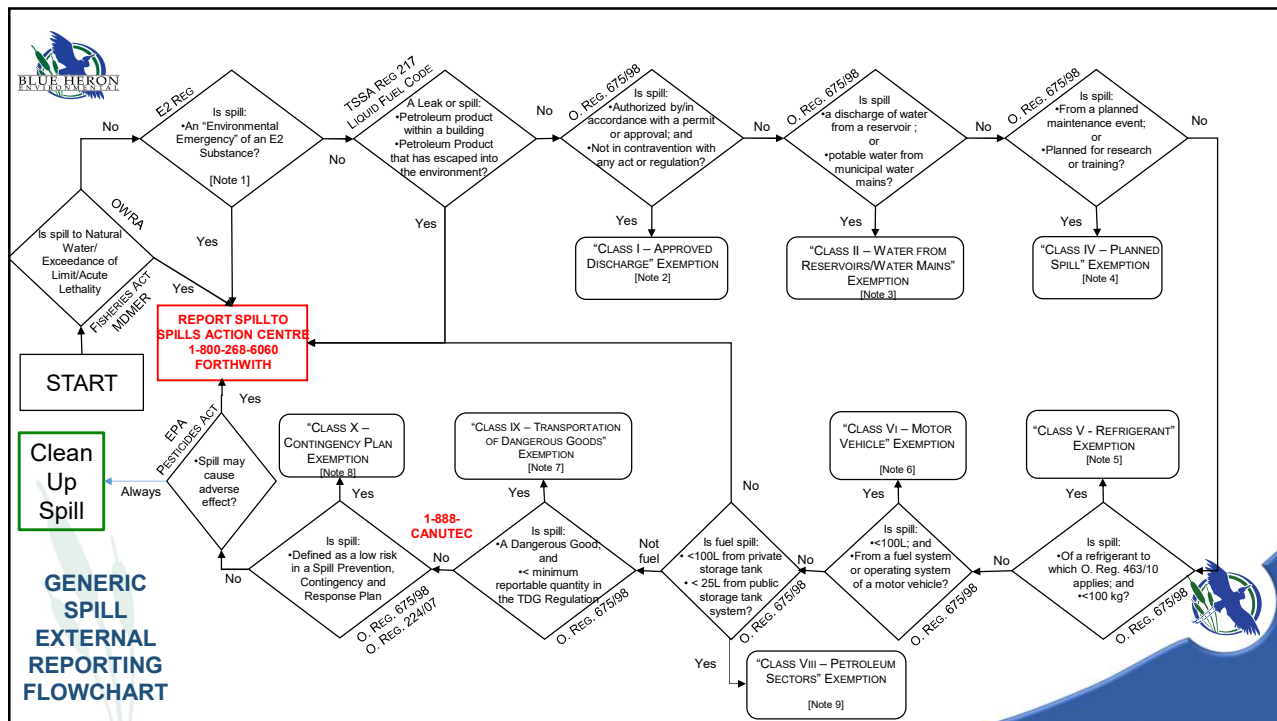


- Who decides if it's reportable?
- How is this decision made?
 - What are the criteria to be considered?
- How is the report completed?
- What information is provided?
- What are the timelines for reporting?

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REPORTABLE...OR NOT?

When in doubt, call SAC!

1-800-268-6060

**Agencies have the final word on whether the incident is
"reportable"**

**KEEP
CALM
AND
REPORT
THE SPILL**



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MAKING THE SAC CALL

WHAT INFORMATION DO YOU NEED?

When reporting the spill, the owner of the pollutant will be asked to provide:

- Their name and phone number
- Name and phone number of the person or company in control of the product spilled
- Date, time and location of the spill
- Duration of the spill (if known) and whether the spill is ongoing
- Type and quantity of pollutant spilled, including hazard level or toxicity information



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MAKING THE SAC CALL

When reporting the spill, the owner of the pollutant will be asked to provide:

- Source of the spill and information on the cause
- Description of adverse effects
- Environmental conditions that affect the spill (weather, traffic, etc.)
- Actions being taken to respond
- Other agencies and parties responding
- Other information? (subjective to SAC responder)



External Spill
Report Form

SOON: On-line reporting option coming!



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AFTER THE SAC CALL

After the owner of the pollutant reports the spill, an environmental officer will:

- Document the information and actions taken
- Assess the environmental and health impacts based on gathered information
- Ensure responsible parties respond to spill events as per their legislative responsibility
- Track and follow up on required cleanup activities
- Provide advice and information related to spills or environmental incidents
- Coordinate a response with other agencies, if needed
- Initiate government response when required



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SPILL REPORTING - SUMMARY

INTERNAL	EXTERNAL
<ul style="list-style-type: none"> Spills must be reported to an assigned person IMMEDIATELY ALL spills, no matter the size, must be reported internally for tracking purposes The person who discovers the spill is typically responsible to fill out an internal form (incident form, spill report, etc.) Requires awareness, site wide! 	<ul style="list-style-type: none"> Report FORTHWITH – even if you don't have all the information Only by trained personnel Under <u>specific circumstances only</u> <u>FORTHWITH to the Spills Action Center (SAC)</u> When the quantity of material spilled exceeds specified criteria OR when ANY quantity or material reaches any natural water body Record all external conversations



Spill Action Center (SAC)
1-800-268-6060
(Soon to be online!)



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SPILLS MUST BE CLEANED UP



EPA

Duty to mitigate and restore

- 93 (1) The owner of a pollutant and the person having control of a pollutant that is spilled and that causes or is likely to cause an adverse effect shall **forthwith do everything practicable to prevent, eliminate and ameliorate the adverse effect and to restore the natural environment.**



Reporting exemption requires clean up to remain a “**non-reportable**” spill



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WHAT CAN HAPPEN IF YOU IGNORE A SPILL?

Monetary “penalties” CAN be imposed by Regulatory Agencies when a facility “violates” certain regulations...

Certain consequences may include:

- ENVIRONMENTAL PENALTIES
- CHARGES/FINES
- JAIL TERMS



There are serious penalties for failure to report a spill forthwith!



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QUESTIONS?



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