

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

OCCURRENCE INVESTIGATION PROGRAM

PROGRAM OVERVIEW

A hazardous occurrence is any event that results, or nearly results, in unintended **harm to people**, or **damage** to vessels, equipment, material, facilities, or the environment. Hazardous occurrences include:

- work-related injuries and illnesses, such as **disabling injuries** and **minor injuries** (including work-related injuries resulting from **motor vehicle crashes**),
- exposure to **hazardous substances**, where exposure may endanger health or safety,
- **reportable marine accidents** and **reportable marine incidents**, as per Transportation Safety Board definitions,
- **shipping casualties** that require a report under the Atlantic Pilotage Authority Regulations, and
- all other hazardous occurrences, including significant **near-misses** that could have resulted in serious injury, illness or other loss.

This Occurrence Investigation Program describes:

- **initial reporting obligations** (both internal and external),
- guidelines for **conducting constructive investigations**,
- various **external reports** that must be submitted, and
- **follow-up** to ensure that investigations produce effective results.

Prevention is the main reason for conducting occurrence investigations. By identifying and then controlling the root causes, similar or more severe losses can be avoided. The investigation of near-misses provides especially valuable prevention opportunities.

DEFINITIONS

Although these definitions appear in the OHS Definitions section of the APA OHS System Manual (at Tab 3), they are included here, for convenience.

"Disabling injury" means an employment injury or an occupational disease that:

- (a) prevents an employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury or disease occurred, whether or not that subsequent day is a working day for that employee,
- (b) results in the loss by an employee of a body member or part thereof or in the complete loss of the usefulness of a body member or part thereof, or

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

(c) results in the permanent impairment of a body function of an employee.

"Hazardous substance" includes a controlled product and a chemical, biological or physical agent that, by reason of a property that the agent possesses, is hazardous to the safety or health of a person exposed to it.

"Minor injury" means an employment injury or an occupational disease for which medical treatment is provided and excludes a disabling injury.

"Reportable marine accident" (TSB) means an accident resulting directly from the operation of a ship other than a pleasure craft, where

- (a) a person sustains a serious injury or is killed as a result of
 - (i) being on board the ship or falling overboard from the ship, or
 - (ii) coming into contact with any part of the ship or its contents, **or**
- (b) the ship
 - (i) sinks, founders or capsizes,
 - (ii) is involved in a collision,
 - (iii) sustains a fire or an explosion,
 - (iv) goes aground,
 - (v) sustains damage that affects its seaworthiness or renders it unfit for its purpose, or
 - (vi) is missing or abandoned.

"Reportable marine incident" (TSB) means an incident resulting directly from the operation of a ship, other than a pleasure craft, where

- (a) a person falls overboard from the ship,
- (b) the ship, of one hundred gross tons or more, unintentionally makes contact with the bottom without going aground,
- (c) the ship fouls a utility cable or pipe, or an underwater commodity pipeline,
- (d) the ship is involved in a risk of collision,
- (e) the ship sustains a total failure of any machinery,
- (f) the ship sustains a shifting of cargo or a loss of cargo overboard,
- (g) the ship is intentionally grounded or beached to avoid an accident,
- (h) any crew member whose duties are directly related to the safe operation of the ship is unable to perform the crew member's duties as a result of a physical incapacitation that poses a threat to the safety of any person, property or the environment, or
- (i) any dangerous goods are released on board or from the ship

"Shipping Casualty" means an incident that occurs whereby a ship in a compulsory pilotage area:

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

(a) causes loss or damage to any other vessel or to property located in or adjacent to the waters in that area, whether or not loss or damage results to the ship; or

(b) is damaged, stranded, lost or abandoned or is in any manner involved in an incident that may directly or indirectly cause damage to or pollution of the surrounding environment.

INITIAL REPORTING OF OCCURRENCES TO APA

In the event of a hazardous occurrence, three concerns take top priority:

- **care and treatment of any injured persons,**
- **elimination and control of any remaining hazards, and**
- **preservation of the scene, for an effective investigation.**

1. All hazardous occurrences (including significant near-misses) must be reported to the appropriate **APA Investigating Supervisor** indicated in Figure 1, below:

Internal Reporting & Investigation Responsibilities	
<i>Affected person/equipment:</i>	<i>Investigating Supervisor:</i>
Pilots (including Shipping Casualties).....	Director of Operations
Launchmasters.....	Director of Operations
Deckhands & all APA-operated pilot boat occurrences..	Appropriate on-duty Launchmaster
Reportable Marine Accidents & Incidents (pilot boats)	Appropriate on-duty Launchmaster
Dispatchers.....	Dispatch Supervisor
Administrative staff.....	OHS Coordinator
Contractors operating APA vessels.....	Director of Operations

Figure 1

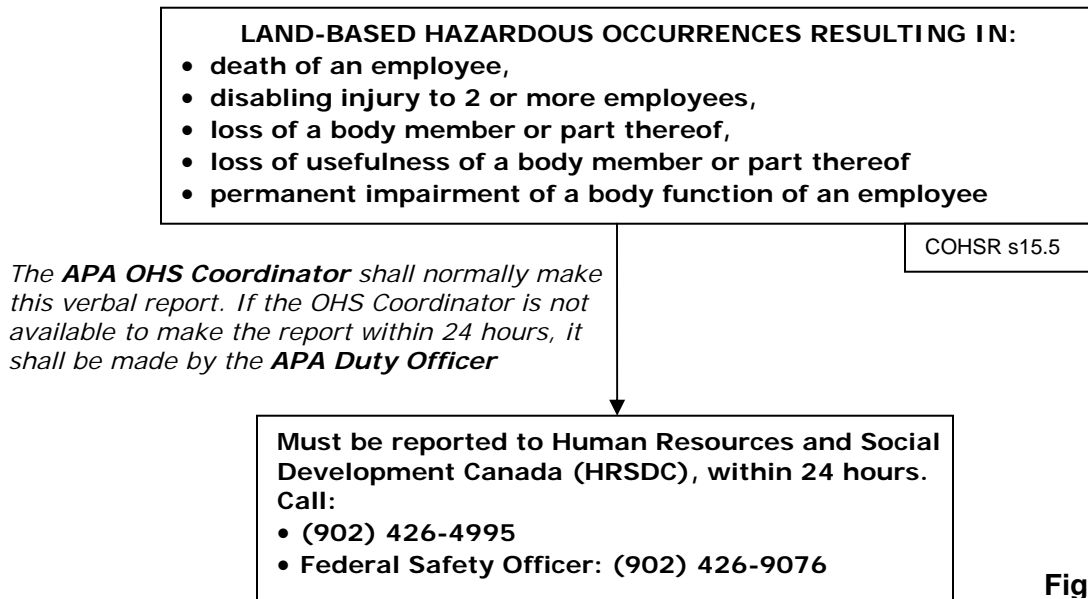
2. The initial report of an occurrence to the APA Investigating Supervisor:
 - may be verbal or written,
 - must be made without delay,
 - after regular business hours, should be made through APA Dispatch, who should then contact and advise the Duty Officer, as necessary.
3. In the case of a **Reportable Marine Incident** or **Reportable Marine Accident**, the reporter shall immediately report to the Director of Operations or Duty Officer, by the fastest means available, all known details of the occurrence including any pollution or threat of pollution.
4. In the case of a **shipping casualty**, the Pilot who was performing pilotage duties on the ship shall immediately report to the Director of Operations or Duty Officer, by the fastest means available, all known details of the incident including any pollution or threat of pollution.

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

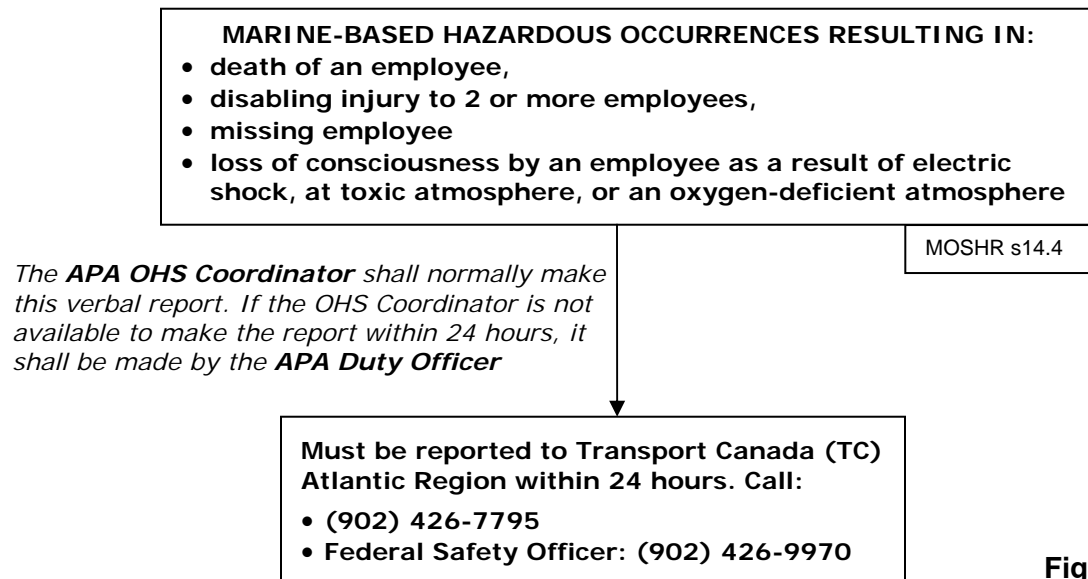
INITIAL REPORTING TO EXTERNAL AUTHORITIES

1. Because of their seriousness, some occurrences require that the APA provide an immediate report to the appropriate authority. Figures 2, 3 and 4, below, describe those **initial external reporting obligations**.

Initial Reporting of Land-based Hazardous Occurrences:



Initial Reporting of Marine-based Hazardous Occurrences:



ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

Initial Reporting of Reportable Marine Accidents & Incidents:

- | |
|---|
| REPORTABLE MARINE ACCIDENTS OR INCIDENTS: <ul style="list-style-type: none">• involving pilot boats <u>owned by APA</u>, or vessels under pilotage |
|---|

*A Reportable Marine Accident or Incident involving a pilot boat owned by the APA shall normally be reported by the **Launchmaster**. If a pilot boat is considered missing or lost, the report shall be made by the person first aware of the situation (usually the **Dispatcher**). A Reportable Marine Accident or Incident involving a vessel under pilotage shall normally be reported by the **Pilot**.*

Must be reported to the Transportation Safety Board (TSB) as soon as possible. Initial reports shall be made by radio, to MCTS (Halifax Traffic, Fundy Traffic, etc).

An initial communication must include as much of the following information as is available:

- The name or identification number, nationality and type of the vessel;
- The names of the owner, operator, charterer and agents of the vessel;
- The names and qualifications of the master and pilot of the vessel;
- The date and time of the accident or incident;
- The weather and sea conditions at the time of the accident or incident;
- A description of the navigational aids on board the vessel;
- The last point of departure and intended destination of the ship, including the date and time of departure;
- Where the ship is not missing
 - The location of the accident or incident by reference to an easily defined geographical point, or by latitude and longitude;
 - The number of crew members, passengers and other persons that were killed or sustained a serious injury;
 - A description of the accident or incident and the extent of any resulting damage to the vessel, the environment and other property, and
 - A description of any dangerous goods aboard, or released from, the vessel
- Where the vessel is missing
 - The last known position of the vessel by reference to an easily defined geographical point, or by latitude and longitude including the date and time of that position;
 - The number of crew members and passengers aboard the vessel;
 - A description of any dangerous goods aboard the vessel; and
 - The action being taken to locate the vessel;
- The technical specifications of the vessel such as the tonnage, length and type of propulsion;
- A description of the cargo aboard the vessel; and
- The name and address of the person making the report and, where applicable, the name or identification number of the vessel from which the report is being made.

In the case of a reportable marine accident or incident involving a pilot boat owned by the APA, the Launchmaster must provide to the TSB, in a form approved by the TSB, within 30 days after the accident or incident a written report containing all the information described above.

Note: All evidence relating to reportable marine accidents and incidents must be preserved and protected, until the TSB indicates otherwise. Only necessary measures to ensure the safety of any person, property or the environment take priority over the preservation of evidence.

Figure 4

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

CONDUCTING INVESTIGATIONS

1. Once the initial internal and external reports have been made, The **Investigating Supervisor** (see figure 1, page 3) should proceed directly with the investigation. The purposes of all investigations must be to:
 - **identify** the unsafe acts and unsafe conditions,
 - **determine** the root, or underlying causes of hazardous occurrences,
 - **recognize** opportunities to improve our OHS System,
 - **recommend** and implement corrective actions, and
 - **report** and communicate hazardous occurrence information to those concerned (including various authorities).
2. **The investigation shall be started as soon as possible.** In nearly all cases, the Investigating Supervisor must provide a completed APA Occurrence Report to the OHS Coordinator **within 3 days** of the occurrence.
3. Depending on the circumstances, injuries that don't require medical treatment may not always need to be investigated. One example is a minor cut to a finger. In those cases, the **immediate supervisor** should make a note of the occurrence in a log, etc. This is necessary so that both the employee and the supervisor can establish that the occurrence was reported, should the condition worsen over time. If that same minor injury happens frequently, however, then it should be investigated.
4. When first aid (beyond the use of a band-aid) is administered, the **investigating supervisor** must complete an Occurrence Report. This also serves as a first aid record.
5. Significant near-misses are those that, under slightly different circumstances, could have resulted in serious injury, illness or other loss. Significant near misses must be investigated.
6. For serious occurrences, including significant near misses, it may be appropriate to assign a member of the Work Place Health & Safety Committee (WHSC) to participate in the investigation. For serious occurrences,
 - The Investigating Supervisor should contact the OHS Coordinator at the earliest opportunity, to discuss participation of a WHSC member.
 - OHS Coordinator should determine the need for WHSC member participation. If appropriate, the two WHSC Co-chairs and others should be consulted.
 - If participation of a WHSC member is advisable, the OHS Coordinator should confirm that with the two WHSC Co-chairs.

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

- The two WHSC Co-chairs must agree on assignment of a specific WHSC member, and advise the OHS Coordinator accordingly.
 - The OHS Coordinator shall confirm details with the member and the relevant APA manager.
7. Information recorded on the APA Occurrence Report must be thorough. It is used by the OHS Coordinator when completing other reports. If witness statements, sketches, detailed information about weather/sea conditions, etc are required, they should be attached to the Occurrence Report.
 8. All Pilots, Launchmasters and other employees of the Authority, all employees of contractors of the Authority who agree to be bound by this Program, and all employees of such contractors, who have any involvement with or knowledge of a hazardous occurrence shall provide all assistance requested by the investigating supervisor in connection with his/her investigation and completion of the APA Occurrence Report, including providing the Investigating Supervisor with verbal and/or written statements and reports containing all known details of the occurrence.
 9. Figure 5 summarizes the initial reporting actions. Figure 6 describes the investigation process.
-
-

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

Summary of Initial Reporting & Start of Investigation:

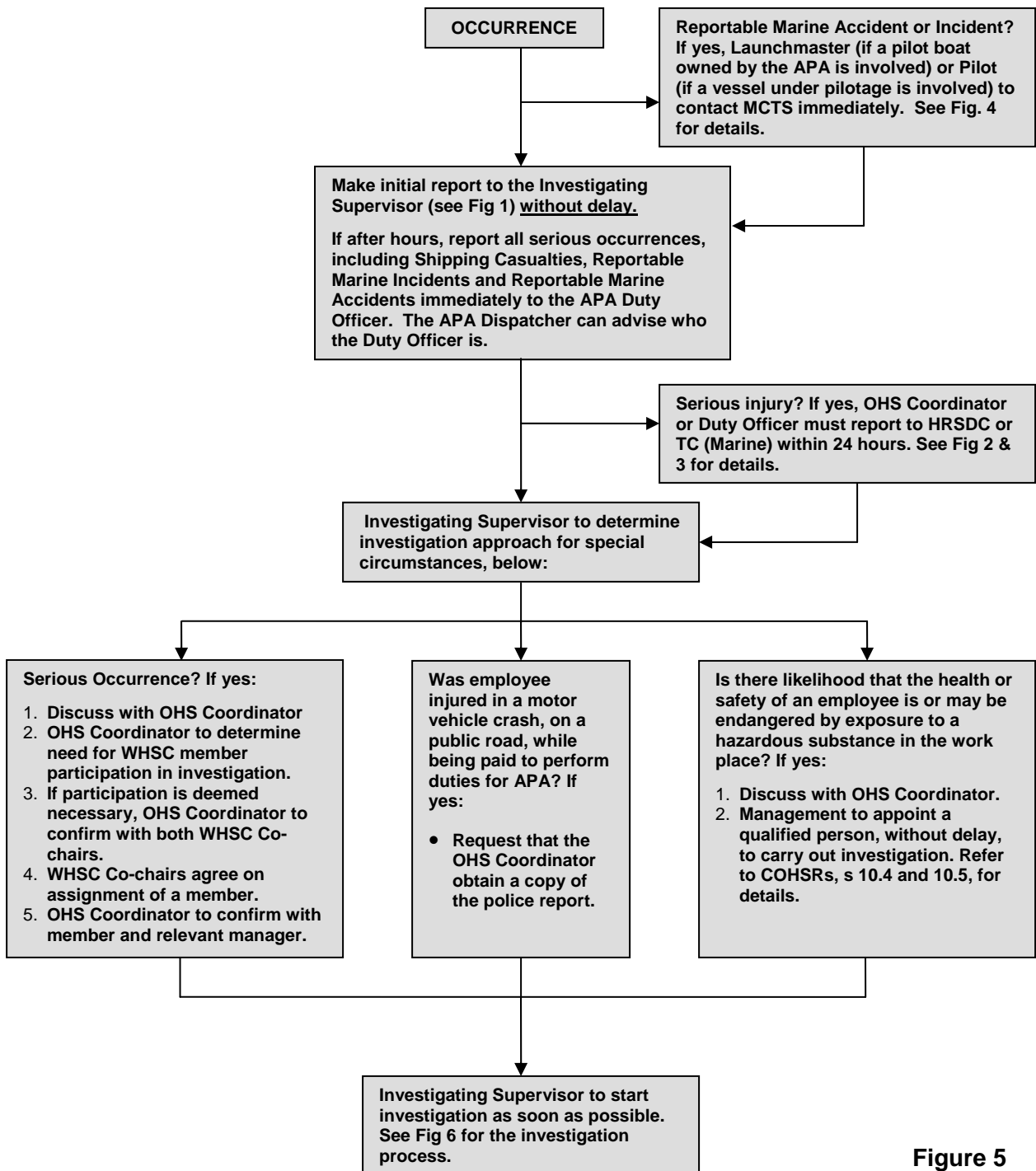


Figure 5

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

The Investigation Process:

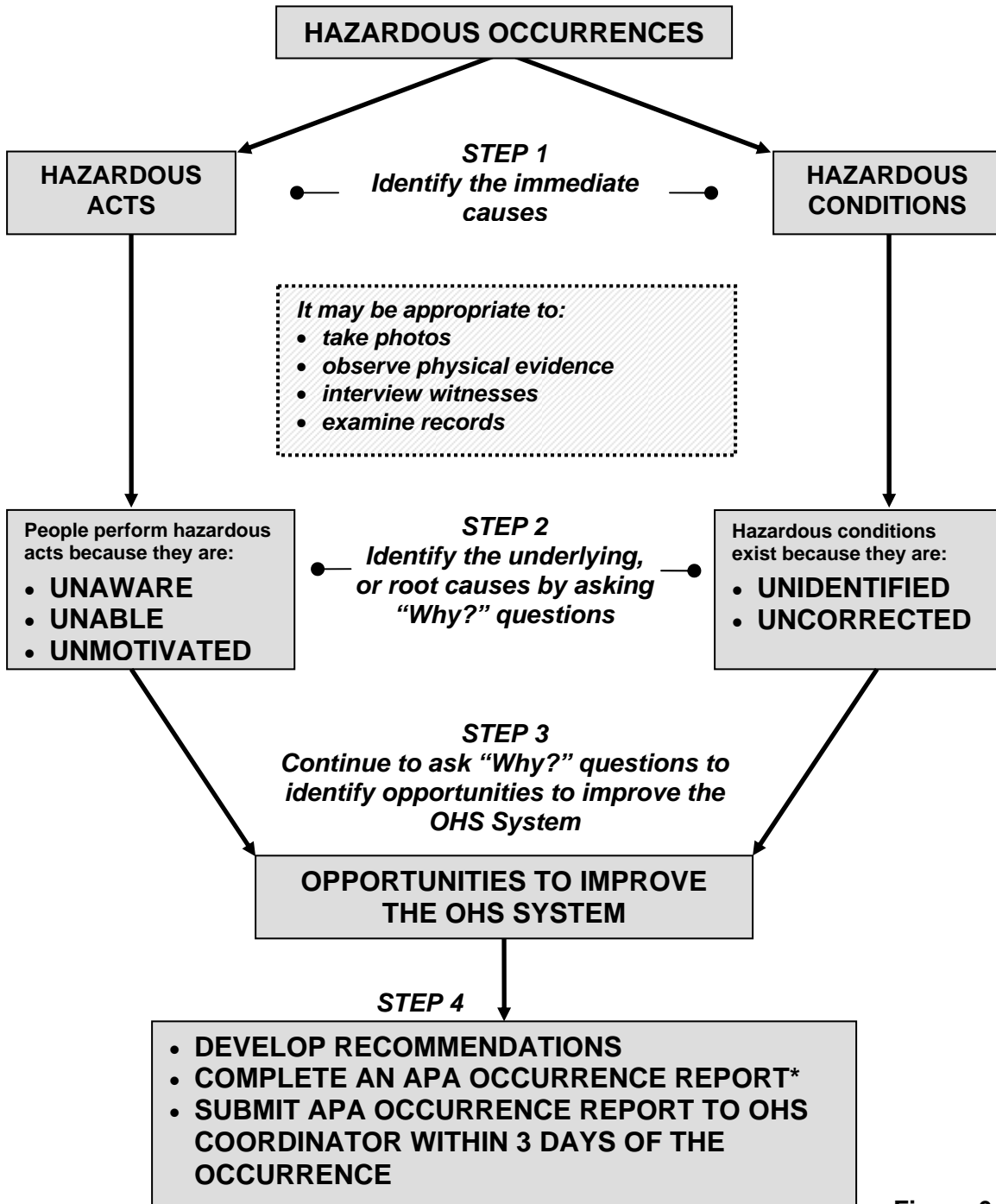


Figure 6

**Note: A Shipping Casualty is the only type of occurrence that does not require the completion of an APA Occurrence Report. The Pilot's Report of Shipping Casualty is satisfactory in that circumstance. The Pilot shall immediately provide a report to the [Director of Operations] by the fastest means available, containing all known details of the incident including any pollution or threat of pollution, and shall also provide a written Pilot's Report of Shipping Casualty within 72 hours of the initial report.*

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

PROCESSING OF COMPLETED APA OCCURRENCE REPORTS

1. Once an APA Occurrence Report is received, the OHS Coordinator shall provide a copy to both co-chairs of the WHSC.
2. If the hazardous occurrence was a motor vehicle crash on a public road, while an APA employee was being paid to perform duties for the Authority, the OHS Coordinator shall obtain a copy of the police report.
3. As appropriate, the OHS Coordinator and Director of Operations shall discuss and assign responsibility for outstanding corrective actions. Target dates for completion shall also be assigned. If the WHSC provides recommendations for corrective actions, the OHS Coordinator and Director of Operations shall respond in writing within 30 days of receiving the recommendations indicating what, if any, action will be taken and when it will be taken.
4. If there are outstanding corrective actions, the OHS Coordinator shall immediately forward a copy to each person responsible for an outstanding action. The original Occurrence Report shall be held in the "Actions Pending" file.
5. Once an action has been addressed or completed, the person responsible shall note and initial the actual date of completion in the margin next to the targeted date and return the copy to the OHS Coordinator. Copies shall be stapled to the original.
6. When all outstanding actions have been completed and copies attached, the OHS Coordinator shall move the Occurrence Report from the "Actions Pending" file and archive it. Occurrence Reports must generally be kept on file for a minimum of ten years. Occurrence Reports and other related reports concerning an employee's exposure to a hazardous substance must be kept on file for thirty years.
7. The OHS Coordinator shall be responsible for introducing all Occurrence Reports and related reports for review at the next monthly WHSC meeting.

EXTERNAL REPORTING OF OCCURRENCES

The **OHS Coordinator** is responsible for the timely submission of all written reports to HRSDC/TC/TSB and the Regional Injury Compensation Office.

Written Reports To Human Resources & Social Development Canada for Land-based Occurrences:

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

1. If occurrences are land-based, reference must be made to the COSHRs [s 15.8(1)]. Required written reports to HRSDC must be made using the "Hazardous Occurrence Investigation Report", form Lab 1070.
2. According to the COSHRs, a written report to HRSDC, **within 14 days**, is required if a hazardous occurrence resulted in:
 - a) a disabling injury to an employee,
 - b) an electric shock, toxic atmosphere or oxygen deficient atmosphere that caused an employee to lose consciousness,
 - c) the implementation of rescue, revival, or other similar emergency procedures, or
 - d) a fire or and explosion.
3. If a condition described above resulted from a **motor vehicle accident**, the **OHS Coordinator** shall obtain a copy of the police report and forward it to the HRSDC safety officer **within 14 days** of receipt. A copy must also be provided to the Work Place Health & Safety Committee.
4. It is the responsibility of the **OHS Coordinator** to complete and submit Hazardous Occurrence Investigation Reports, based on information obtained from APA Occurrence Reports. The instructions on the back of the form provide valuable guidance.
5. Once the form is completed, the OHS Coordinator shall review the Hazardous Occurrence Investigation Report with the Director of Operations prior to obtaining signatures.
6. The OHS Coordinator shall have the Hazardous Occurrence Investigation Report signed by the person investigating (normally the Investigating Supervisor who completed the Occurrence Report), and either the Health & Safety Committee member who assisted or the non-management co-chair.
7. The OHS Coordinator shall distribute copies as indicated on the bottom of the form.
8. The OHS Coordinator shall file the employer's copy. Hazardous Occurrence Investigation Reports must be kept on file for a minimum of ten years.

Written Reports To Transport Canada for Marine-based Occurrences:

1. If occurrences are marine based, reference must be made to the MOSHRs [s 14.6(1)]. Required written reports to HRSDC must be made using the "Hazardous Occurrence Investigation Report", form Lab 1070.

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

2. According to the MOSHRs, a written report (**to TC, within 30 days**) is required if a hazardous occurrence resulted in:
 - a) the death of an employee,
 - b) a missing employee,
 - c) a disabling injury to an employee, or
 - d) the loss of consciousness of an employee as a result of electric shock, or a toxic or oxygen deficient atmosphere.
3. It is the responsibility of the **OHS Coordinator** to complete and submit Hazardous Occurrence Investigation Reports, based on information obtained from APA Occurrence Reports. The instructions on the back of the form provide valuable guidance.
4. Once the form is completed, the OHS Coordinator shall review the Hazardous Occurrence Investigation Report with the Director of Operations prior to obtaining signatures.
5. The OHS Coordinator shall have the Hazardous Occurrence Investigation Report signed by the person investigating (normally the Investigating Supervisor who completed the Occurrence Report), and either the Health & Safety Committee member who assisted or the non-management co-chair.
6. The OHS Coordinator shall distribute copies as indicated on the bottom of the form.
7. The OHS Coordinator shall file the employer's copy. Hazardous Occurrence Investigation Reports must be kept on file for a minimum of ten years.

Written Reports to the Transportation Safety Board:

1. The **TSB** has its own mandatory reporting requirements that are different than those of HRSDC/TC, and are based on the definitions for "reportable marine accident" and "reportable marine incident" (see page 2).
2. In addition to the initial report by radio, the TSB must be advised of reportable marine accidents or incidents in writing, using TSB form 1808 (Report of a Marine Occurrence).
3. As required, the **OHS Coordinator** shall submit a **TSB 1808** form **within 30 days** of the occurrence. As the normal **Investigating Supervisor, Launchmasters** are required to submit an APA Occurrence Report within 3 business days of the occurrence. That report should provide most of the details necessary to complete the TSB 1808.

ATLANTIC PILOTAGE AUTHORITY OHS SYSTEM

4. The OHS Coordinator shall maintain a record of all completed TSB 1808 forms for a minimum of ten years.

Workers' Compensation Reports:

1. A worker's compensation report must be completed when a hazardous occurrence results in a minor or disabling injury, or the death of an employee.
2. The OHS Coordinator is responsible for ensuring completion of workers' compensation reports and submitting them to the Regional Injury Compensation Office of Human Resources & Social Development Canada:

<p>Manager, Injury Compensation HRSDC - Labour New Brunswick Region P.O. Box 1166 Moncton NB E1C 8P9 Tel.: (506) 851-2162 Fax: (506) 851-6262</p>
--

3. A report must be submitted on the form used by the workers' compensation board of the province in which the work-related injury, illness or death occurred. Reports are to be submitted within three days of the occurrence being reported by the employee.
4. The OHS Coordinator shall maintain a copy of all workers' compensation reports for a minimum of ten years.

FOLLOW-UP ON CORRECTIVE ACTIONS

The OHS Coordinator shall follow-up to ensure that all corrective actions arising from occurrence investigations are completed.

REVIEW OF PROGRAM EFFECTIVENESS

1. At least annually, at the April meeting, the WHSC shall discuss and evaluate the effectiveness of this program.
2. The results of this annual program review, including any recommendations for improvement, shall be noted in the minutes of the WHSC meeting.