

# Accidents and Malfunctions Plan Annual Update: 2016

---

*Accidents and Malfunctions Plan*

*Site C Clean Energy Project*

*March 31, 2017*



Site C Clean Energy Project  
Suite 600, Four Bentall Centre  
1055 Dunsmuir Street, P.O. Box 49260  
Vancouver, BC. V7X 1V5

March 31, 2017

Canadian Environmental Assessment Agency  
160 Elgin Street, 22nd Floor  
Ottawa, ON K1A 0H3

Attention: Mr. Michel Vitou

Dear Mr. Vitou:

**Re: Site C Clean Energy Project - Accidents and Malfunctions Plan 2016 Annual Update**

BC Hydro is pleased to provide an annual update on BC Hydro's Accidents and Malfunctions Plan for 2016. This update is being submitted in accordance with Condition 2.6 of the Site C Project's Decision Statement, issued to BC Hydro on October 14, 2014, and with reporting requirements outlined in the Accidents and Malfunctions Plan.

As per Condition 2.6 of the Decision Statement:

*"The Proponent shall implement the plan and provide to the Agency a review and summary of the implementation of the plan as well as any updates required to the plan on an annual basis commencing with construction. In the event of an occurrence of an accident or malfunction, the Proponent shall update the plan to incorporate new procedures and measures to avoid a reoccurrence, as necessary."*

As per Section 5.0 Reporting of BC Hydro's Accidents and Malfunctions Plan, BC Hydro will:

*"... develop a procedure for notifying BC Ministry of Environment; BC Ministry of Forests, Lands and Natural Resource Operations; Environment Canada and Fisheries and Oceans Canada in the event that an accident or malfunction as described in Section 3 occurs. The procedure will be developed in consultation with the named agencies prior to commencement of dam construction."*

As per Section 6.0 Plan Updating of BC Hydro's Accidents and Malfunctions Plan:

*"The Plan will be updated annually beginning with the commencement of dam construction. In the event of an occurrence of an accident or malfunction, BC Hydro will update the plan to incorporate new procedures and measures to avoid a reoccurrence, as necessary."*

In accordance with Decision Statement 2, the Accidents and Malfunctions Plan was developed by BC Hydro, in consultation with Environment Canada and the Environmental Assessment Agency,

to prevent accidents and malfunctions and outline procedures in the case of occurrence of an accident or malfunction.

The draft Accidents and Malfunctions Plan was submitted to the CEA Agency and Environment Canada on October 17, 2014. The final was submitted on June 5, 2015, and is available on the Site C Project Website at:

[https://www.sitecproject.com/sites/default/files/Accidents\\_and\\_Malfunctions\\_Plan.pdf](https://www.sitecproject.com/sites/default/files/Accidents_and_Malfunctions_Plan.pdf)

## **Background**

Construction began on July 27, 2015 and is ongoing. In 2016, significant progress was made on constructing access roads at site and upgrading public roads in the vicinity of the project area, advancing clearing of the north (left) and south (right) banks of the dam site, completing construction of a temporary construction bridge and completing the construction of the Worker Accommodation camp. Site preparation reached substantial completion in late 2016 and the main civil work contractor advanced earthworks on the north and south banks. Site C is progressing on track for overall schedule, scope and budget after the first full year of construction.

## **2016 Accidents and Malfunctions**

BC Hydro reported 485 environmental incidents within the internal BC Hydro incident management system (IMS) from January to December 2016. The incident type summary for all reported environmental issues is as follows:

- 437 Spill/pollution;
- 20 Fish/water;
- 16 Land/vegetation;
- 9 Bird/Wildlife; and,
- 3 Archeological.

Each incident is classified based on environment severity. There were 440 low ranking environmental consequence severity incidents reported, with 1 environmental incident ranked as moderate. The moderate rated incident was related to a breach of the causeway between left bank shore and the west end of left bank island.

A total of 428 of the incidents were internally reported, 3 were classified as requiring corrective action, 37 required reporting with no follow-up and 4 of regulatory interest.

## **Reporting**

Through its Fish Hydro Management Committee (FHMC), which has representation of Fisheries and Oceans Canada and the Province of BC, BC Hydro has established an agency notification protocol that defines the nature of an accident/incident, its level/severity, who to notify and how (i.e., by phone, website, or e-mail). Although Environment Canada is not represented at FHMC, DFO did ensure that any notifications to them related to a deleterious substance spill to water would be conveyed to Environmental Canada upon receipt of an applicable notification. This notification procedure was agreed upon by FHMC by July 23, 2015, within roughly one week of the



start of Site C Construction. A detailed description of this notification procedure is provided in Appendix A.

**Closure**

Please do not hesitate to contact me at 604-528-1721 or [greg.scarborough@bchydro.com](mailto:greg.scarborough@bchydro.com) if you have any questions.

Regards,

A handwritten signature in black ink, appearing to read "Greg Scarborough".

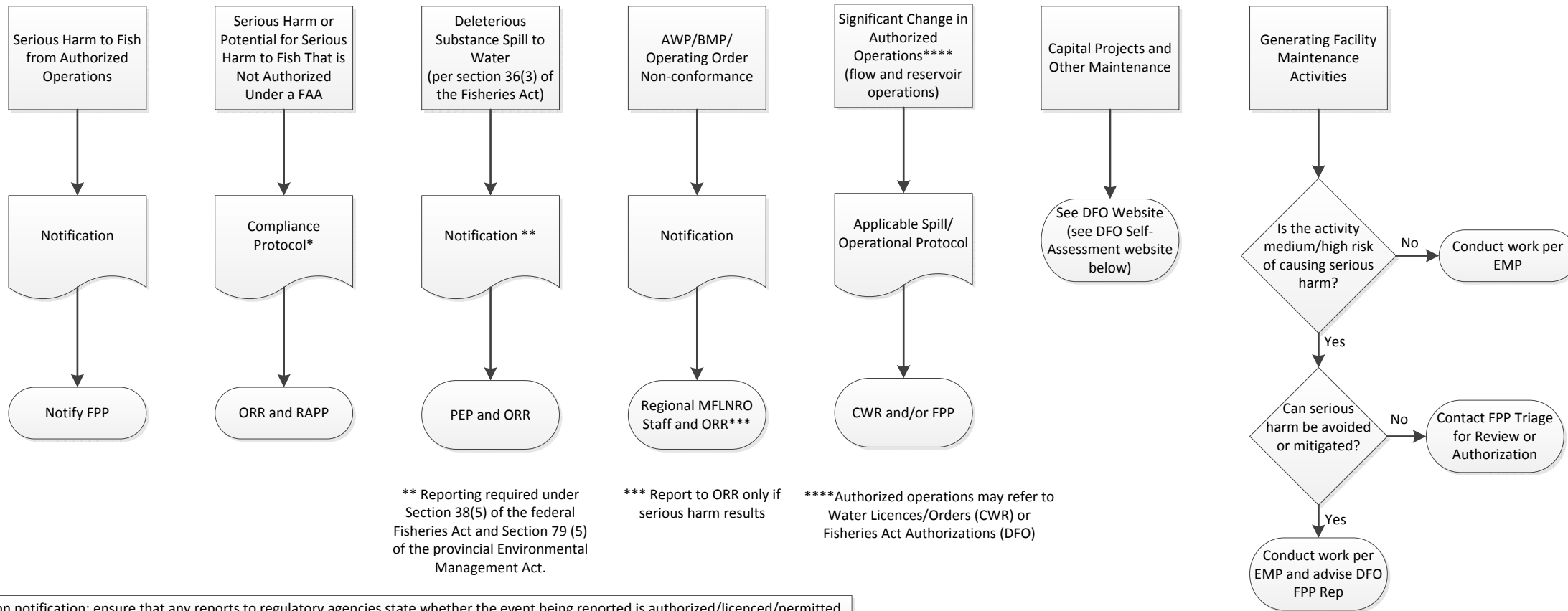
Greg Scarborough  
Environmental Mitigation, Monitoring and Compliance  
Site C Clean Energy Project

Attachments

Appendix A – Agency Notification Process Chart

# Agency Notifications

Applicable to incidents, agreement non-compliance and generating plant maintenance. Does not include notifications in advance of projects related to request for review, permits or authorization.



**Note on notification:** ensure that any reports to regulatory agencies state whether the event being reported is authorized/licenced/permited or not and which regulatory requirement (e.g. serious harm, deposit of a deleterious substance, etc.) has triggered the notification.

## \*Compliance Protocol timelines:

(notification of Serious Harm required per Section 38(4) of the Fisheries Act)

1. Report to local contacts as soon as possible.
2. Preliminary assessment within 24 hour or such time frame as otherwise agreed.
  - depending on nature of incident, assessment may include stranding and/or salvage.
3. Within 5 days or a time frame agreed to by all parties, review of the preliminary assessment and notify location contacts as to the status of compliance with all Acts, regulations, licenses, permits and authorizations.

See full Compliance Protocol for complete process.

## Types of Incidents

- Serious Harm: Stranding, entrainment, TDG, destruction of fish, habitat
- Protocols and procedures: deviation from ordered operational requirements and BMPs
- AWP Non-conformance: clearing exceedance, riparian area trespass
- Spills of Deleterious Substances to Water (administered by EC federally, MoE provincially)

Contacts:

## Department of Fisheries and Oceans

### Triage & Planning Unit (Authorizations & Reviews)

Telephone: Toll free 1-866-845-6776  
 Email: ReferralsPacific@dfo-mpo.gc.ca  
 Self-Assessment Website: <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

### Observe, Record & Report (ORR)

Telephone: Toll free 1-800-465-4336  
 Email: PACRadioRoomRHQ@pac.dfo-mpo.gc.ca

Contacts:

## Province of BC

Report All Poachers and Polluters (RAPP)  
 Telephone: 1-877-952-7277

Provincial Emergency Program (PEP)  
 Telephone: Toll free 1-800-663-3456

## DFO Fisheries Protection Program – Large Hydro Unit

Brian Naito (Large Hydro Lead and Peace)  
 Telephone: 604-790-4260  
 Email: Brian.Naito@dfo-mpo.gc.ca

Dan Sneep (Lower Mainland and Coastal)  
 Telephone: 604-209-5764  
 Email: Daniel.Sneep@dfo-mpo.gc.ca

Dean Watts (Columbia)  
 Telephone: 250-371-1286  
 Email: Dean.Watts@dfo-mpo.gc.ca