

Accidents and Malfunctions Plan Annual Update: 2017

Accidents and Malfunctions Plan

Site C Clean Energy Project

March 29, 2018

March 29, 2018

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 2017 Annual Update

BC Hydro is pleased to provide an annual update on BC Hydro's Accidents and Malfunctions Plan for 2017. 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."

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

Background

Construction began on July 27, 2015 and is ongoing. In 2017, significant progress was made at the dam site on both left and right banks advancing excavations for the left bank, powerhouse, approach channel and the south bank access road in addition to many smaller areas. Left and right bank Stage 1, and diversion tunnel inlet and outlet cofferdams were completed in 2017. Most relocated surplus excavation materials (except L6) were either completed or developed in 2017 and roller compacted concrete was placed in the powerhouse excavation. Outside the dam site, clearing for transmission, the Highway 29 realignment and eastern reservoir was completed and some transmission access roads were built.

In late 2017 BC Hydro and the Province of British Columbia announced a delay to the overall project schedule with a new date for river diversion schedule of 2020. While this will set some activities back a year, BC Hydro had a one-year float built into the schedule and are confident the project can be delivered on time in 2024.

2017 Accidents and Malfunctions

BC Hydro reported 399 environmental incidents within the internal BC Hydro incident management system (IMS) from January 1 to December 31, 2017. The incident type summary for all reported environmental issues is as follows:

- 331 Spill/pollution;
- 44 Fish/water;
- 9 Land/vegetation;
- 9 Bird/Wildlife; and,
- 6 Archeological.

In early 2017 BC Hydro stopped classifying incidents based on environment severity. Therefore, this annual report does not summarize incidents by severity type. The vast majority of incidents on the Site C Project in 2017 are related to small volume spills, less than 5 Litres. All spills are tracked by either BC Hydro or our contractors and confirmation of spill clean-up is recorded in these tracking systems.

Reporting

Through its Fish Hydro Management Committee (FHMC), which has representation of Fisheries and Oceans Canada (DFO) and the Province of B.C., 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 on 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.

Plan Updates

Section 6 of the Accidents and Malfunctions Plan requires that the Plan is updated annually. In 2017 BC Hydro reviewed this plan and since there were no significant learnings or modifications to procedures developed to avoid reoccurrence of incidents, BC Hydro determined that an update to the Plan was not required for 2017.

Closure

Please do not hesitate to contact me at greg.scarborough@bchydro.com if you have any questions.

Regards,



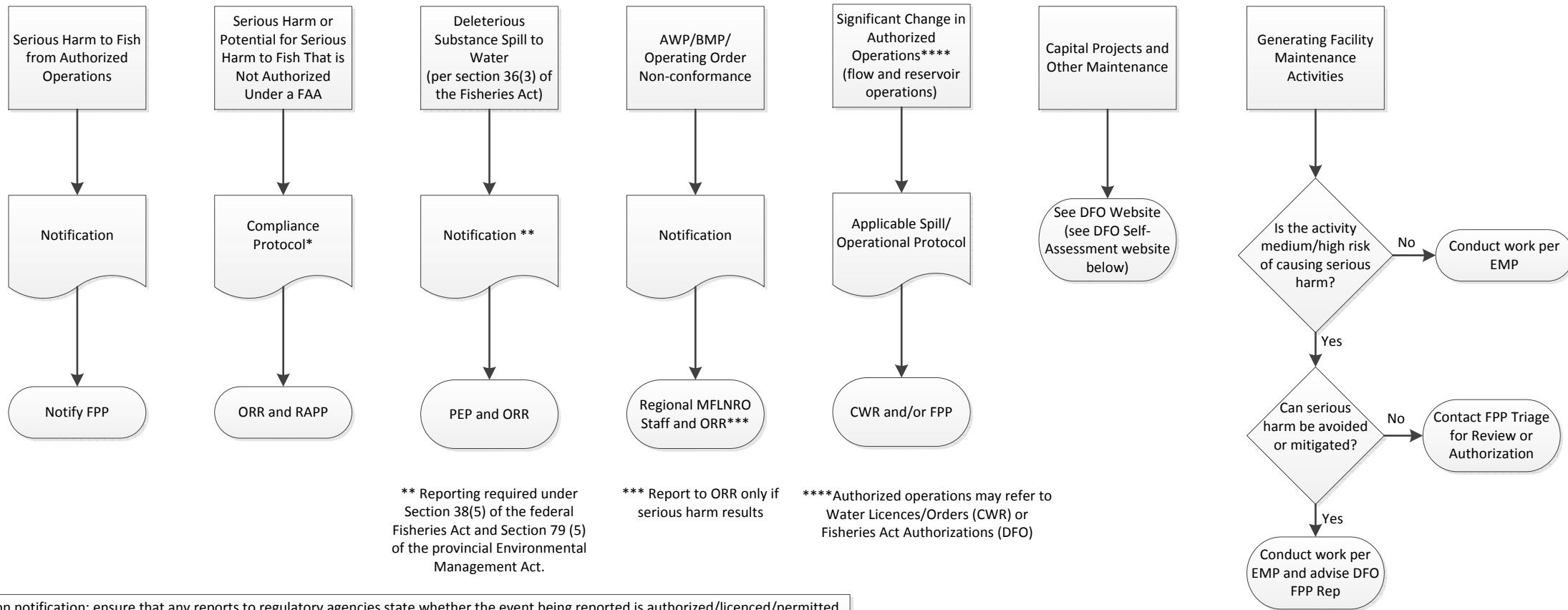
Greg Scarborough
Manager, Environmental Mitigation, Monitoring and Compliance
Site C Clean Energy Project

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