

Q. Tab 1.1 2015 Facility Rehabilitation – Hydro Dam and Spillway Rehabilitation

Please provide the risk assessment results relied upon by Newfoundland Power for determining that the Horse Chops Spillway does not meet public safety requirements.

- A. The most significant risk to public safety associated with the Horse Chops Spillway is the tripping hazard. The risk assessments conducted on Newfoundland Power's hydroelectric dams are done in accordance with Section 4.2 – Risk Assessment (Identification, Analysis and Evaluation) of the Canadian Dam Association's *Guidelines for Public Safety Around Dams, 2011*.¹ The risk assessment requires: (i) assigning an Incident Likelihood Rating (ILR); (ii) assigning an Incident Consequence Rating (ICR); and (iii) determining the Risk Rating.

Incident Likelihood Rating (ILR)

An ILR rating of 1-5 is assigned based on the likelihood that a public safety incident might occur. The maximum ILR rating of 5 is assigned if there are more than 10 occurrences in the hazardous area in any one of the last 3 years.² Since there are likely to be more than 10 public crossings at the Horse Chops Spillway in any given year an ILR rating of 5 is assigned.

Incident Consequence Rating (ICR)

An ICR rating of 1-5 is assigned based on the most likely outcome of direct exposure to the hazard that could reasonably be experienced as a result of the dam's operation or the presence of the dam and associated structures. A rating of 5 is assigned if the most likely outcome of the exposure is a fatality. A rating of 1 is assigned if it is most likely that there will be no consequence as a result of direct exposure to the hazard. Newfoundland Power assigned an ICR rating of 3 which corresponds to the most likely outcome of direct exposure being either medical treatment or stranding (rescue required).³

Risk Rating

A risk rating is determined by multiplying the ILR rating by the ICR rating. In the case of the Horse Chops Spillway, the risk rating is 15.⁴ Newfoundland Power considers a risk rating greater than or equal to 10 to be a high risk.⁵

¹ These guidelines are copyrighted and cannot be distributed by Newfoundland Power. Copies of the guidelines can be purchased online from www.cda.ca.

² An occurrence refers to the presence of members of the public in the hazardous area of the component under consideration, whether or not an incident occurs.

³ The Horse Chops Spillway is located in a remote wilderness area not often frequented by vehicular traffic.

⁴ ILR of 5 multiplied by ICR of 3 equals a Risk Rating of 15.

⁵ Newfoundland Power's determination that risk rating greater than or equal to 10 to be a high risk is consistent with other utilities such as Newfoundland and Labrador Hydro. In Hydro's 2013 Capital Budget Application, Table 4-3 at page D-64 classifies risk ratings equal to or greater than 10 as high.