

ICOLD Committee V is committed to making improvements to the reliability and safety of spillway gates. One of the most effective ways of doing this is to identify historical failures and near misses that have occurred with this equipment, thereby putting human life at risk.

Although there appears to be a widespread belief that spillway gate problems are a significant cause of dam failures, the truth of the matter is that additional information is required before any conclusions may be drawn.

We are therefore requesting your assistance in collecting this information so that we can establish the magnitude of the problem but, more importantly, identify the event – or sequence of events – that led to the incident. A few examples include:

- Loss of power
- Failure of the control system
- Malfunction of the water level monitoring system
- Failure of the lifting gear
- Operator error (including failure to take action and inability to respond in time)
- Gate jamming.

With this information, we will be in a better position to assess the risks by various causes and also to make recommendations that could substantially reduce the risk in new and existing schemes.

As many organizations may be reluctant to release this information due to public perception, we have decided that all the information will remain anonymous in the published version and will not even identify the country of origin. The source of the information and the country will only be available to the chairman and a few members of the committee. We hope this assurance of confidentiality will enable us to gather more vital information.

So, if you have information on spillway gate problems and failures within your own organization or within other organizations, we would be most grateful if you could take a moment to complete the attached survey and forward it to us. In return, we will provide you with an advance summary of all the information we receive as soon as it has been collated. This information should give you fresh insight to the problems and risks associated with gate equipment that likely applies to your own dam safety assessment program.

The write-up should describe the main events leading up to the incident or problem and also include applicable information relating to the gates, the lifting system the power supplies, the control system, any backup systems, any remote or automated control systems. If you have information as to the root cause of the failure or other contributing factors, this would also be extremely helpful.

Once completed, please scan and send by email to Jerry.Westermann@Hatch.com. If you are not able to send via email, please send a note and we will provide an alternate form of transmission.

Thank you for taking the time to provide this information. We greatly appreciate your time and also respect the confidentiality of the information you are sharing.

Sincerely

Jerry Westermann
Chairman Committee V

Hydromechanical Equipment

Name/Organiz. _____

Committee V ICOLD 2016

Email _____

Survey of Spillway Gate and Hoist Types

Indicate below the number of gates of each type that your organization owns or operates

Radial (Tainter) _____

Vertical Wheeled _____

Low Level Outlet _____

Crest, Flap or Overshot _____

Rubber Dam or Obermeyer _____

Drum or Sector gate _____

Other _____

Wire rope or Chain Hoist _____

Hydraulic Operator _____

Log Lifter _____

Incidents, Failures and Near Misses

Email completed questionnaires to Jerry.Westermann@Hatch.com