

# Dam surveillance including the art of measurements, proper interpretation and the importance of inspections

**Date:** 5 and 6 November 2018

**Venue:** NH Cape Town Lord Charles Hotel in Somerset West

The ICOLD Bulletin 158 (Dam Surveillance Guideline) states that:

*“Dams are among the human achievements that while providing great benefits also create a potential risk to neighbouring populations, property, and the natural environment. Although the consequences of dam failure can be significant, in all but a few instances the probability of failure is very low.*

*The intrinsic risk of dam failure, consisting of consequences multiplied by the probability of occurrence of an event, is difficult to quantify accurately. Nevertheless, dam surveillance can help reduce the risk by the early detection of undesirable events. Any surveillance process should aim to reduce the probability of failure by:*

- Documenting the behavior of the dam, its foundation and other components;
- Utilising identified potential failure modes and the associated levels of risk;
- Preparing and implementing Emergency Action Plans appropriate for the dam and its consequences of failure; and
- Implementing a program that can detect early the development of significant failure modes.

*However, the owner has the main responsibility for all aspects of dam safety including reducing the consequences of any dam failure.*

*The objective of dam surveillance is to make a timely and precise diagnosis of dam behavior that allows for the prevention of undesirable consequences. The monitoring system and surveillance programme have to be designed or redesigned considering potential failure modes associated with the higher levels of risk. They should be able to identify any abnormal behavior which could lead to potential reduction of safety.”*

Experience has shown that proper surveillance and its various components are in most cases not properly executed at South African dams. The need was therefore identified for a training workshop on “*Dam surveillance including the art of measurements, proper interpretation and the importance of inspections*” hosted by SANCOLD. All stakeholders involved with the surveillance of dams will benefit from this training workshop especially dam owners.

## **Program:**

**5 and 6 November:** Class room training (2 CPD points)

- Dam safety and dam surveillance principles;
- Potential failure modes;
- Monitoring basics including the art of measurements and proper instrument maintenance;
- Inspection basics;
- Data file and data management; and
- Assessment of dam behaviour including proper interpretation of surveillance information.

## **Presenter:**

**Louis Hattingh** is a dam safety specialist with more than 26 years' experience. He is pre-approved on the register of Approved Professional Persons according to the South African Dam Safety Regulations to perform dam safety evaluations for concrete arch, concrete gravity/butress and earthfill embankment dams up to 60 m. He is currently the chairman of the ICOLD technical committee on dam surveillance. Louis is widely recognized as a leading trainer and hosts workshops and technical courses on dam safety including dam surveillance for a range of government institutions, universities and professional bodies across Africa.

## **Fees:**

- For SANCOLD members: R 4 500,00 per delegate
- For Non-SANCOLD members: R 5 000,00 per delegate

## **Registration:**

Registration will be limited to the online registration system via the link <https://www.quicket.co.za/events/57994-sancold-training-dam-surveillance/>. If you have any queries regarding registration, please do not hesitate to contact Louis Hattingh at [halh@icon.co.za](mailto:halh@icon.co.za). SANCOLD reserves the right to cancel the course in the event of unforeseen circumstances.

