



Vancouver Geotechnical Society

A Local Section of the
Canadian Geotechnical
Society

www.v-g-s.ca

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NOTICE OF UPCOMING TECHNICAL PRESENTATION

Wednesday, April 13, 2016

SUBJECT: 19 July 1985 Stava Tailings Dam Failure: What Can We Learn From It?

SPEAKER: Luca Zorzi – *Ph.D., Geoscientist Specialist, Golder Associates Ltd.*

Dr. Luca Zorzi is a Geoscientist Specialist at Golder Associates Ltd. Luca obtained his doctorate from Università degli Studi di Padova (Italy) under the supervision of Professor Genevois. His Ph.D. research activities were directed towards understanding the processes of failure, deformation mechanisms, and the evolution of deep seated gravitational slope deformations and rock avalanches in foliated metamorphic rocks. He focused his research on the influence of failure mechanisms on slope stability and on both dynamic and evolutionary types of failure. During his studies, he had the chance to specialize his skills in the geomorphological, geomechanical, and structural analysis of natural slopes. As a geoscientist specialist at Golder Associates Ltd., Luca is currently involved mainly in terrain hazard assessment work for prefeasibility and feasibility geotechnical investigations and analyses in support of the design of infrastructure for the mining industry.

The 1985 Stava tailings dam failure personally impacted Luca, as 7 of his direct relatives died in the tragedy. He represents the Stava 1985 Foundation, a foundation established to keep alive the historical memory of the Stava failure and strengthen the culture of prevention and correct territorial management.

CONTENT: On 19 July 1985 the failure of two tailings dams located just upstream from the village of Stava in the municipality of Tesero (Eastern Alps, Italy) triggered a vast mudflow that flowed down-channel through Stava, a small village of 20 buildings. The mudflow rapidly traveled over 4.2 km along the Stava Valley and passed through Tesero, before flowing into the Avisio River. The flowing mass had an initial volume of 180,000 m³ of mud and water which spilled out of the tailings dams, plus nearly 50,000 m³ of additional material resulting from soil erosion, destruction of buildings, and uprooting of trees. The total area affected by the mudflow was about 435,000 m² along the total stretch of 4.2 km. Along its run out path, the flowing mass destroyed 53 houses, 3 hotels, 6 industrial buildings and 8 bridges; 9 buildings were seriously damaged; and caused erosional processes over an area of 27,000 m². 268 people lost their lives, including 59 boys and girls less than 18 years old, 89 men, and 120 women.

In recent years, the Stava 1985 Onlus Foundation has been established aiming to keep the memory of the disaster alive. The duty of the Foundation is to keep alive the historical memory of the Stava Valley and strengthen the culture of prevention, correct territorial management, and safety since shortcomings in these fields were the cause of these and other man-induced disasters. The Foundation is principally active in the field of education and information directed at high school and university students, graduates, technicians and administrators who

are in charge of the management of tailings dams and geotechnical structures throughout the explanation of genesis, causes, and responsibilities of this catastrophe.

In this presentation, an overview of the principal causes and conditions that led to the disaster, along with the responsibilities will be presented aiming to highlight what has been learnt and what we still have to learn from this tragedy.

DETAILS: **Location:** Executive Inn, 4201 Lougheed Highway, Burnaby, BC V5C 3Y6
Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar)
Technical Presentation: 6:30 to 7:30 pm (No need to RSVP)
Dinner: 7:45 pm (\$30 will be charged for dinner)

If you would like to stay for dinner, please RSVP to Shane Magnusson via email or at the door shane.magnusson@amecfw.com