

8ICEG Invited Lecture



Dr. Nathalie Touze-Foltz

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Invited Lecture Title

Performance Issues of Barrier Systems for Landfills

[17:30 - 18:00 , Monday 29th Oct. 2018]

Biography

Dr. Touze-Foltz has been conducting research on geosynthetics for the past 25 years, with particular emphasis on environmental applications. She has authored about 200 papers. She is the head of two regional centers of Irstea in Antony and Nogent-sur-Vernisson. Irstea is a French public research institute, which has been at the forefront of geosynthetic research since 1972. She serves or has served on a number of national technical committees especially for the use of geosynthetic clay liners and geomembranes. Her experience has been acknowledged in the field of standardization and she has served as convenor of WG4 (hydraulics) in ISO TC 221 and CEN TC 189. She is currently president of the French Chapter of IGS and vice-president of the IGS. Dr Nathalie Touze-Foltz was a Keynote Lecturer at the Eurogeo 4 and Eurogeo 5 conferences. She was also an invited lecturer at the 7th International Conference on Environmental Geotechnics in 2014 (Melbourne, Australia). She was recently awarded the 6th Giroud lecture in Seoul along the 11th International Conference on Geosynthetics (Healing the world: A Geosynthetics solution).

Abstract

The objective of the paper is to give an update in key topics related to performance issues of barrier systems for landfills. The objective of using barrier systems is to minimize the impact of contaminants on the surrounding environment. To achieve this goal puncture protection of the geomembrane must be ensured. An update is first given on this matter. The question of the stability on slope of geosynthetic barrier systems is then discussed and an insight is given in modeling and laboratory measurement of parameters required to perform reliable modeling, especially as regards the case of piggy-back landfills. Finally, the question of transfers through bottom barrier systems is addressed, giving an update especially in the analytical solutions developed in the past 10 years in China in this matter.