

Early fire detection with thermal imaging cameras PYROVIEW in the overall remediation of the hazardous waste landfill of Kölliken (Switzerland)

The hazardous waste landfill Kölliken was operated from 1978 to 1985 for the storage of hazardous waste. Since 2005, the former landfill is in a unique complete demolition with a volume to dismantle of 630000 tons of material. For the dismantling of the hazardous waste landfill the largest hall in Switzerland with an area of 46000 m² .was built in 2006/2007.



Image 01:
Aerial photo of the mining hall
(Source: SMDK)

Due to a fire event in 2008, the entire security concept has been completely revised and brought up to the highest safety standards for staff and environment. A part of the new security concept is the permanent monitoring of the entire dismantling of the hall and storage area with the thermal imaging cameras. The decision was made for the system solution PYROVIEW/PYROSFT FDS of the company DIAS Infrared GmbH, which was realized together with the company Transmetra GmbH.

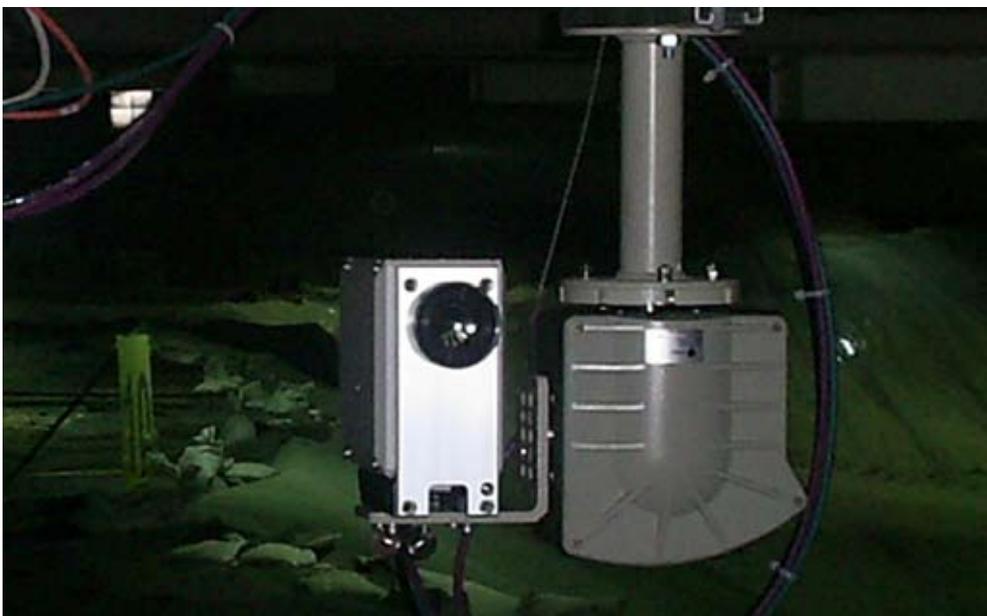


Image 02:
Infrared camera PYROVIEW with pan-tilt head

Twelve high-resolution thermal imaging cameras PYROVIEW type 380L with pan-tilt head and 21 smaller fixed PYROFIELD are used for stationary surveillance. Each camera is equipped with a highly efficient air purge unit.

The information comes together in a central software system PYROSOFT FDS which includes alerting and data storage. A modern client-server architecture allows simultaneous access of several observation systems with large screen or even a simple local computer for individual sections. During the mining operation the system is actively managed by qualified expert staff. In night operation the entire excavation hall is continuously monitored and alarm events are forwarded immediately to the fire department. .

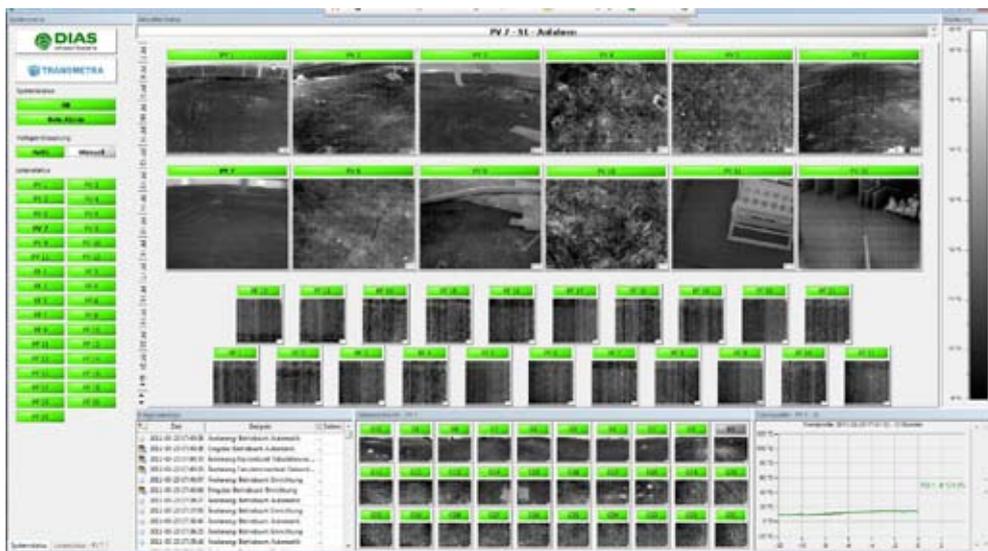


Image 03:
Software PYROSOFT FDS

In addition up to 4 mobile observation vehicles equipped with a combined thermal imaging and color system camera with pan-tilt head of DIAS Infrared GmbH are in use for the observation of the waste mining.



Image 04:
Map of the hazardous waste landfill Kölliken