The chemical Trichlorosilane (TCS), often used in the manufacture of computer chips, is hazardous and emits toxic vapors when exposed to the atmosphere. Protecting the dike, or containment area, around tanks storing flammable liquid solvents involves more than suppressing fire. The potential release of toxic vapors due to spills or tank leaks means a second potential hazard for people and property.

Protecting these dike areas called for an ANSUL Foam System to help ensure both fire and vapor suppression. Multiple TCS stations are protected by a single bladder tank leading to five branches with each having a dedicated proportioner/ratio controller, concentrate control valve and deluge valve. The system is controlled by an AUTOPULSE control panel and flame detection system.

The advantages of the system include using one system/nozzle to produce both a foam blanket for fire protection and a medium-expansion foam for rapid vapor suppression. Less water is required for medium-expansion foam, which causes less chemical disturbance and contamination. Another advantage is the use of ANSULITE 3x3 Low Viscosity Foam Agent to both protect a water miscible flammable liquid and suppress toxic vapors.

The system design offered easy installation, fast response and dike fill-time, excellent foam quality and provided superior fire and vapor suppression.