

Open-Pit Mining Equipment

Case Study



Location:
Aurora, North Carolina, USA

Challenge:
Protect electric mining shovel
from five electrical hazards

Product Solutions:
ANSUL® INERGEN® Clean Agent
Fire Suppression System

One of the world's largest vertically integrated fertilizer enterprises operates an open pit mine with an annual capacity of millions of tons of phosphate rock. To accomplish this level of production, the company depends on technologically advanced, high-value equipment like its electric mining shovel.

Protecting this equipment comes with challenges, including suppressing fires with a clean, electrically non-conductive agent that won't cause collateral damage to sensitive electrical equipment. Proper protection minimizes equipment downtime and maintains business continuity.

In addition to safeguarding mining equipment, ensuring the safety of employees is vital. One of the company's core values is its overriding concern for the "safety of people and the environment." The choice of a fire suppression agent that is non-hazardous to people and is also environmentally safe had to fit the company's commitment to safety.

Equipping the electric mining shovel with an INERGEN® Clean Agent Fire Suppression System was the solution to these challenges. The equipment was protected from five electrical hazards with five independent INERGEN® systems (along with two dry chemical systems). Detection and control for all the systems is performed by an AUTOPULSE microprocessor control panel, which is designed for intelligent detection and control. Safeguarding employees was also achieved as the INERGEN® agent is composed of atmospheric gases and causes no hazard to people or to the environment.

Johnson Controls offers a 20-Year Environmental Warranty that covers both the fire suppression system and the agent plus a 20-Year Evergreen Discharge Warranty that covers the cost of the agent.