

Agro-Energiek

Location: **Europe** Distributor: **FirePro Benelux** Application: **Biogas production** Industry: **Renewable Energy**



Agro-Energiek is a novel energy producer that functions in-between agricultural science and renewable energy. The company produces green energy, green heat and numerous organic fertilisers emanating from the processing of manure and organic waste. Its products and processes are screened by a number of prominent authorities through sampling audits. Agro Energiek is currently contributing sustainable green energy to roughly 5,000 families.

The Task

Design, supply, install, commission and maintain a dependable fire detection and fast reaction fire suppression system for guarding operations from combustibles and toxic gasses. This system needs to be designed under the requirements of BRL-K23001 and BRL-K23003 and be effective against A, B, and C classes of fire as the material for fuel in this situation can be diverse. It is also critical that the system reacts swiftly so that disruption of assets is kept to a minimal and in order for operations to resume as speedily as possible.

FirePro Generators used:

FP-3000

FP-5700

Risks Involved & Consequences

Biomass material moisture content combined with air and/or bacterial fermentation can cause spontaneous combustion. Fire risks are further increased when there are sources of ignition such as electrical equipment - which together with human error are major causes of fire. The dangerous substances and explosive atmospheres regulation requires that fire risks deriving from this type of indoor storage must be managed and controlled. The objective is to ensure the safe evacuation of personnel and to reduce product and structural damages.

Why FirePro?

This is a highly specialised installation with limited solutions. H₂S (Hydrogen sulphide) and the CH₄ (Methane) contained within the enclosures rapidly oxidize metallic parts and other components placed inside, rendering them useless. Therefore, system suitability to this challenging environment, compliance, effectiveness, ease of maintenance and modularity were decisive factors in applying a certain technology. To our credit, the client's insurance company and the fire department requested a dependable solution from FirePro Benelux.



Results of Implementation

FirePro was indicated as the optimal solution since it fulfilled all the operational and technical parameters required for the project. FirePro Benelux Engineers designed a bespoke solution and completed the installation within days. The FirePro Units have been placed externally while a tube system funnels the FirePro FPC agent inside the risk. During a fire incident, the system will protect within seconds while maintenance remains minimal.

