Containerized pump rooms for projects in Romania and Venezuela

INGE SLUIJTER ■ PENTAIR NIJHUIS SUPPLIED THE ENGINEERING, PROCUREMENT AND CONSTRUCTION CONTRACTOR (EPCC) FERROSTAAL WITH COMPLETE CONTAINERIZED FIREFIGHTING PUMP ROOMS FOR PROJECTS IN ROMANIA AND VENEZUELA. THE COMPACT AND TESTED MODULAR DESIGN OF THE PUMP ROOMS PROVIDES A VERY EFFICIENT SOLUTION. SUCH A COMPLETE SUPPLY CONSIDERABLY REDUCES THE RISK OF ASSEMBLY ERRORS AND SAVES CONSTRUCTION TIME ON SITE. FERROSTAAL, AN ORGANIZATION WITH 60 OFFICES WORLDWIDE, RECOGNIZED THESE IMPORTANT AD-VANTAGES.

Firefighting pump room protects gas and oil plant

"One pump room was installed for the end customer OMV Petrom S.A. at its new gas compressor station in Bulbuceni, Romania," said Niels van den Hurk, Pentair Nijhuis' area sales manager. "Petrom is the largest corporation in Romania and the largest gas and oil producer in Eastern Europe. From Bulbuceni, Petrom provides compressed gas to the national gas network."

The pump room in Bulbuceni needed to meet Petrom's safety requirements and strict sound reduction demands to protect personnel and the work area. Since the equipment is tested weekly, part of meeting these guidelines included insulating the pump room so that the sound level from one meter measures less than 85 dBA.

In addition to the customer's requirements, a number of extreme conditions that are decisive factors for selecting the proper diesel engine were taken into account for the pump room design. These conditions are: the site is located at 208 meters (682 feet) above sea level, the surroundings temperature varies between minus 29 and 40 degrees Celsius (minus 20 and 104 degrees Fahrenheit) and the average relative humidity is 63 percent. The pump room, consisting of four pumps and two jockey pumps –that serve to maintain water pressure in the sprinkler system–, provides the complete water supply for fire protection at this location.

"The pump room was designed according to the latest directives of the National Fire Protection Association's (NFPA) international standard NFPA-20," van den Hurk said. "Besides that I am proud to say that we were able to meet all extra requirements, even though the conditions were challenging."

Copyright photos Bulbuceni plant: Ferrostaal/Van Groen

New power plant in Venezuela protected against fire

The end customer of the second pump room, C.A. Energía Eléctrica de Venezuela (Enelven), built two combined cycle power plants in Zulia state, Venezuela. These power plants will supply sufficient energy to meet the energy demand of the entire region.

"The EPCC of this project, Ferrostaal, initially contacted Pentair Nijhuis to supply separate firefighting pumps at the location in Bachaquero," van den Hurk said. "But, considering the remote location, they chose the containerized pump room option, and thus profit from the advantages of this solution."

The pump room contains two firefighting pumps, one diesel driven, one electric driven pump, and one jockey pump. All pumps comply with the latest regulations of NFPA-20, and are Factory Mutual (FM) approved. In addition, extra devices, supplied by the customer, were successfully incorporated into the total containerized concept.

"Constructing containerized units requires expertise that is available within Pentair Nijhuis," van den Hurk said. "The firefighting equipment at both Petrom and Enelven well prepares both locations in the event of a fire. Studies have shown that when such units are in place, fire damage will be restricted to less than 10 percent, thus providing lower costs and less environmental impact."