A reliable, performance-driven solution for emergency fire protection

METAL RECYCLING FACILITY

PIONEER PUMP

FIRE PROTECTION CASE STUDY

Pioneer Pump worked alongside a British Metal Recycling facility to develop a reliable pumping package that could serve at-the-ready for immediate use in the event of fires relating to the processing of metals and loading sensitive materials onto ships.

CUSTOMER CHALLENGE

The client - a National metal recycling facility - approached several companies with the aim of looking at innovative ways to ensure they are prepared and protected in the event of a fire.

The facility started in the early 1960s and continues to go from strength to strength, each year processing larger and larger volumes of ferrous and non-ferrous metals from numerous depots across the UK.

They began by highlighting the areas where they wished to further strengthen the procedures already in place in the event of a fire. In doing so, the client identified not only a risk in the processing and dismantling sector but they also expressed concerns when the ships were being loaded due to the increase of lithium batteries contained within the casings from many of the metals that were being processed. Due to it not being possible to remove all lithium batteries from the metals, another solution had to be identified to minimise the risk of a fire and the risk of this spreading

Following the briefing, Pioneer Pump arranged a full site survey to establish the equipment and procedures already in place, areas requiring addressing and to obtain an in-depth understanding of the facility and it's operations.

THE SOLUTION

Once the survey had been completed, Pioneer identified the 80CM to provide the best flow, head and pressure. The 80CM was selected due to it's ability to feed not only the fire suppression sprinkler systems but also a further two fire hoses whilst still achieving the pressures required - resulting in rapid rectification of any incident and minimising the potential risk of fires spreading.

An emergency auto-start system was also implemented for the client to allow for instantaneous reaction to any incident.

Due to the corrosive salt water that the client would be pumping, the client opted to install stainless steel pump ends at Pioneer's suggestion to ensure maximum reliability from the pump-sets.

Following discussions with the client, Pioneer arranged a test day at the recycling facility to exhibit the performance of the pump proposed. Every aspect of the client's requirements were thoroughly tested and further scenarios were introduced to stress test the abilities of the pump-set. Throughout all of the testing the 80CM pump-set performed in an exemplary manner, meeting and exceeding all client requirements and specification.

DEMO PUMPSET OFFERED PRIOR TO SALE

PUMP FEATURES

- *Pioneer Prime 3" Clear Liquid pumpset with duplex stainless steel pump end*

PERFORMANCE DETAILS

- *Pump Size: 3"*
- *Max Flow: 210 m^3/h*
- *Max Head: 90 meters*

RESULTS

- *Increased safety and reliability*

THE RESULTS

Following the presentation an order was placed the following week for two 80CM-EVO pump-sets to be housed in purpose-built containers protected from the elements and ready for use. Upon arrival of a ship, as part of the client's safety procedures, the pumps are put in place and primed ready for use. In the first few months the pumps have been used twice on small scale incidents and have out performed expectations.

The client is now in the process of replicating the process across their network of sites working alongside Pioneer Pump to identify the individual needs and requirements of the sites.