Power Case Study - Major Power Supplier, UK

Environmental Hazard Review (EHR) in the Power sector

EHR helps manage environmental risks.

Over the last 2 years, the client has implemented its Environmentally Critical Plant (ECP) project across all of its generation assets in the UK.

This project was initiated with the objective of identifying potential environmental risks and ensuring that suitable and sufficient controls are in place to prevent significant environmental harm occurring.

In order to ensure effective delivery of this project, the client turned to ABB’s team of experienced environmental risk consultants to provide an EHR.

Solution
Using a methodology specifically adapted for the client from the ABB EHR technique, an ABB study leader, along with a team of site personnel, identified and reviewed the potential environmental risks at each of the generation assets in the UK.

The review identified various equipment, infrastructure and procedural failure scenarios and went on to assess the suitability of existing incident prevention control and mitigation measures.

These included physical and procedural controls as well as the existing maintenance regime and operating staff experience and training considerations. A semi quantitative risk score was then allocated to each scenario to allow a ranked risk profile to be developed for the site.

The output from the ECP review provided each site with:
- A documented record of the review undertaken and the risks identified
- A risk prioritised action list for implementing best practice / improvement opportunities
- An environmentally critical equipment list, which detailed the specific site control measures that are critical to prevention of significant environmental harm
  - These environmentally critical equipment lists can be fed into future maintenance strategy reviews to ensure that maintenance efforts are focussed on minimising environmental risk
Using ABB to deliver this project provided a consistent approach across the generation assets. This in turn ensured efficient delivery of the review sessions and associated reporting with minimal demand on site resources. The process has also allowed site staff to become familiar with the ECP process so that they can revisit the assessments in the future to assess any site changes.

The project has succeeded in providing the opportunity for best practice for controlling environmental hazards to be identified and disseminated across the generation assets, and the findings of the project will help to effectively manage the environmental risk posed by its operations.

Benefits
- ABB delivered a consistent approach across all the generation assets
- Developed greater understanding of environmental risks within the business
- Dissemination of best practice across all the sites
- Focussed effort on critical equipment and activities to effectively manage environmental risk