SIGMA ENERGY SOLUTIONS

Due Diligence

Owning or operating a power plant has significant risks associated with statutory regulations and commercial viability. Each plant has its own set of risks factors which can only be realised by a thorough, professional due diligence study, including the physical assets, statutory licences and local environment.

Due diligence audits

Sigma Energy Solutions (Sigma) is well positioned to provide an independent due diligence service to the owner or operator of a power plant. The due diligence review should cover the present and future scenarios with regards to the existing plant configuration and planned changes.

Due diligence aspects

Sigma's extensive experience in providing technical services to power stations in Australia since the 1970s provides the basis for our proven capability in this area. We have performed the owner's engineer role for major power projects. The owner's engineer role requires a thorough understanding of the requirements of the plant owner and the applicable technical and statutory standards governing such ownership.

A due diligence audit should at least address the following areas:

- condition of physical assets to continue providing the generating capacity safely and economically
- operating licences and performance to date – potential for breaches
- O&M costs – benchmark against similar plants – commercial competitiveness
- occupational health & safety compliance
- environmental hazards or issues – emissions
- equipment & spares obsolescence – future availability
- special hazardous materials – asbestos, PCB, radioactive sources
- fuel, cooling water and transmission lines security
- O&M systems and documentation – procedures, records, maintenance plans
- surrounding developments – future impact of any residential developments

Benefits

- Understanding risks and issues associated with power plant.
- Quantify funds required to address issues.
- Analyse and quantify investment benefits and liabilities.
- Understand present and future viability of operations.
- Identify "no go" issues relative to corporate risk management developments.

The methodology employed to conduct due diligence audits includes:

- site inspections – area by area, performed by technical experts using visual and non-destructive testing (NDT) techniques as appropriate.
- records review – past operations, maintenance, statutory reports, plant incidents, performance reports, protection checks.
- staff interviews – operating, maintenance and engineering.
- performance testing – benchmark tests at various loads, compared with design specifications.
- risk assessment & tabulation – collating information gathered, tabulating risks and potential consequences.

Advantages of using Sigma Energy Solutions

- experienced engineering staff in specification, process design, configuration, installation audits, commissioning, and testing of thermal coal, oil and gas fired plant, combined cycle plant, co-generation plant and hydro power plant
- extensive NDT techniques to assess equipment condition and remnant life
- extensive experience in plant performance and environmental emission testing
- comprehensive understanding of OH&S requirements in power plants
- understanding of Asset Management and development of Asset Care Plans
- understanding of plant controls and protection schemes – design and implementation
- ability to identify hazardous substance – comprehensive laboratory facilities
- access to experienced operating and maintenance staff

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7 Terrace Place, Metroplex on Gateway, Murarrie, Queensland 4172 Australia
PO Box 268 Cannon Hill Queensland 4170 Australia
telephone: +61 (0) 7 3902 9900 fax: +61 (0) 7 3902 9999
email: sales@sigenergy.com web: www.sigenergy.com