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## **ENGINEERING INSPECTION**

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### **INTRODUCTION**

Approval, registration and periodic inspection of steam boiler and unfired pressure vessel in Malaysia are strictly controlled by the Department of Occupational Safety and Health (DOSH). Faulty in design could lead to potential hazard to human and environment.

SIRIM QAS International, a premier certification, inspection and testing body in Malaysia is recognized by DOSH as the Inspecting Authority under the Fourth Schedule of the Factories and Machinery (Steam Boiler and Unfired Pressure Vessel) Regulations 1970 to provide an independent Third Party Inspection and Verification.

This recognition clearly demonstrates the competency impartiality, independence, integrity and credibility of SIRIM QAS International as an Inspection Body.

Driven by a multi-disciplined team of highly skilled and well qualified inspection engineers, we operate the third party and verification services on welded or non welded structures and components on behalf of owners or employers during construction, shut down for independent reporting (i.e materials, pressure vessels, boilers, piping, platform, steel/columns rails, bridges, ducting, casing, etc) in sectors such as Oil & Gas, Manufacturing and others.

### **OUR SERVICES**

#### **A. Mandatory Inspection Services**

SIRIM QAS International is able to provide the following mandatory inspection services:-

1. Review and verification of design drawing and stress calculations of steam boilers, unfired pressure vessels and pipelines.
2. Witnessing, inspection and verification of new, used or in-service local imported steam boilers, unfired pressure vessels and pipelines.
3. Witnessing, verification and approval of Welding Procedure Specification (WPS), Welder Performance Qualification Test (WPQT) and electrode approval performed by competent firms for steam boilers, unfired pressure vessels, gas pipelines and hoisting machines.

## **B. Independent Third Party Inspection, Verification and Endorsement**

1. Inspection before, during and after construction
  - i. Site verification of production against approved procedure
  - ii. Material inspection and verification
  - iii. Inspection of welded or non welded structures and components
  - iv. Baseline inspection
2. Plant repair and upgrading assessment
3. Compliance inspection on imported and in-services industrial equipment and machinery.
4. Condition monitoring and plant assessment
  - i. Remnant life assessment
  - ii. Fitness for services assessment
  - iii. Corrosion mapping
  - iv. Structural integrity evaluation
5. Non-destructive evaluation (witness and verification of test report)
6. Endorsement of failure investigation and analysis report

## **BENEFITS OF ENGINEERING INSPECTION SERVICES**

- Detection of defects at an early stage by our qualified inspectors can result in saving investment, safety and business opportunity.
- Competitive advantage over compliance to various codes, standards, specification and design requirement that industry has to comply.

## **WHY SIRIM QAS INTERNATIONAL?**

- We provide assurance of independent inspection to regulatory requirements and guidelines of the statutory body and its agencies and compliance to contractual requirements of the clients.
- We offer the most competent and cost-effective third party engineering inspection services.
- We provide a localized one stop services supported by a comprehensive laboratory and testing facilities within the organization.
- We have full-time, permanent and qualified inspection personnel with more than 200 years of accumulated inspection experience within the organization.
- We offer value for money inspection package and solution according to customer requirements (e.g. Package for inspection with a quality and safety management for plant/factory).

## TARGET INDUSTRIES

- Petrochemical and Petroleum Refinery
- Process and food Industries
- Aircraft and Transportation (Civil and Military)
- Natural Gas and Liquid Pipelines
- Armed Forces
- Heavy Equipment
- Power Generation and Distribution
- Public Utilities and infrastructures
- Biomedical Equipment
- Electronics
- Building and Infrastructures
- Insurance
- Marine

## APPLICATION PROCEDURE

Upon enquiry, Inspector of Engineering Inspection Group will give a quotation to client.

The client may submit the application forms and other relevant forms if the quotation is acceptable to the client.

The flow chart showing the procedure for application process for Engineering Inspection is as shown in **Annex 1**.

## COMPLAINTS

Complaints against services provided by SIRIM QAS International may be directed to the Senior Manager of QOSHE of SIRIM QAS International.

## OUR CONTACT DETAILS

### Secretariat

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### Technical Enquiries:

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**FLOW CHART FOR APPLICATION PROCESS FOR ENGINEERING INSPECTION**

