

Our Initiatives to Ensure Safety and Quality

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Keywords Risk assessment, Design check and design review (DC & DR), Standard operating procedure sheet, Hazard prediction training, Safety walk-around inspection, Unscheduled work, Training and education

Abstract

Ensuring safety is the top priority in all our operations. In our operation and maintenance (O & M) services, similar to ensuring the safety of personnel, we consider quality and safety (prevention of accidents and operational disruptions) as top priorities. To ensure such safety and quality, various measures are necessary.

Specifically, these measures include establishing and adhering to company's occupational health and safety (OHS) rules, assessing risks in construction plan document, creating and reviewing work methods and procedures, conducting hazard prediction trainings, providing education and training, implementing occupational safety, health, and quality activities, and sharing lessons learned from past incidents. Safety is ensured by implementing and continuously improving these measures. In other words, a balanced and integrated approach involving the organization, OHS systems, and individuals is essential, and no single element can be overlooked.

1 Preface

Safety comes first above all else. While human safety must always be the top priority, absolute safety is not attainable when human labor is involved. Therefore, it is necessary to implement various measures and combine them to minimize risks. Furthermore, the products our company handles are critical infrastructure for society and must meet high quality standards. Because they can indirectly threaten the lives of third parties, any incidents involving property damage or operational malfunctions must never be overlooked. In other words, just as with human safety, ensuring the safety of equipment and facilities is paramount. This paper introduces our company's approach and philosophy regarding safety and quality assurance.

2 Key Policies

2.1 Occupational Health and Safety (OHS) Management

As stated in our group's OHS policy, "Safety comes first," we consider the safety and well-being of all employees as a core value of our management. We aim to ensure a safe and comfortable

work environment, promoting employee well-being and a sense of fulfillment.

2.2 Quality Control

As stated in our corporate philosophy, in essence, "Make a better future world-" and "For the peace of mind and satisfaction of our customers," each employee understands the social responsibility associated with our products and services, and the significant impact that product defects can have on the company's business performance. We recognize the importance of continuous quality improvement and our motto is to provide products and services that satisfy our customers. **Fig. 1** shows the slogan of our operation and maintenance

Slogan

- "Is there any source of injury?"
- "Is there any destruction?"
- "Is there any factor of facility shutdown?"
- "Always double-check, think carefully, and act accordingly!"

Fig. 1 Slogans of O & M Service Department

Our goal is to achieve zero workplace accidents and zero work-related defects.

(O & M) service department.

3 Status of Work Accidents and Defective Works

3.1 Work Accidents

Our company sets a goal of “zero work accidents” every year, but unfortunately, we have not yet achieved this. Many accidents occur on site, often involving minor incidents like stumbling or falling, which may seem insignificant but can happen in everyday life, or accidents caused by subcontractors. It is important for every employee to sharpen their awareness of potential hazards in their daily activities and routine tasks, and to ensure effective safety management and provide clear instructions to subcontractors.

3.2 Defective Works

We have implemented various measures to prevent defective works, but unfortunately, many similar incidents continue to occur. We need to ensure robust quality control without compromising on quality, focusing on the following points:

- (1) To prevent “defects from coming into the project site”, provide specific instructions to external contractors (suppliers) and verify their understanding.
- (2) To prevent “defects from being made in the project site”, ensure adherence to basic rules, implement preventive measures before corrective actions, and avoid overlooking “false success story” (a case that appears successful in the short term, but has problems or lacks long-term viability, or where risks were excessively overlooked during the process of achieving success.)
- (3) To prevent “defects from occurring at the project site”, understand the sequence control of customer equipment and turn unplanned work into planned work by following a proper procedure. This means that, to ensure work safety, even if unplanned work arises, the nature and procedures of that work should be clearly defined, a formal procedure should be followed, and it should be incorporated into the regular work plan.

4 Activities for Ensuring Safety and Quality

4.1 Risk Assessment

As a means of avoiding and reducing hazards at the site, we conduct risk assessments in accor-

dance with the guidelines for the OHS system. Our company addresses not only personal injuries but also property damage and operational malfunctions, and identifies potential hazards and implements measures to avoid or mitigate them for all types of equipment we handle in various facilities (relating to power distribution, power generation, rotating machinery, dynamometer-based testing system, monitoring systems, and so on). The risk assessment is conducted during the construction planning stage and is implemented at the project site.

4.2 Design Check (DC) and Design Review (DR)

After receiving an order for a certain project request from a customer, we select a project manager. The project manager confirms the details and prepares a construction plan. At our company, a DC is conducted for all projects, and if a DR is deemed necessary based on the DC results, a DR is conducted with the representatives of all key relevant stakeholders. The DC verifies that the specifications and customer requirements are met, and that there are no issues with quality, cost, delivery time, or safety. DR is mandatory for high-risk factor-involved projects, such as those involving new technologies, modifications, or those that have not been undertaken for a long time. The DR also includes a detailed review of the work content and process, including confirmation of customer specifications, identification of potential problems, and ensuring that safety measures are comprehensive. The timing of the DC and DR is planned to allow sufficient time to address any issues that may arise. These procedures are rules to ensure that our workers will not enter the project site unless all issues and concerns are resolved.

4.3 Work Procedures

The quality and skills of field service engineers or technicians can vary depending on their work experiences so far. To address this, we have established a system of work procedures to ensure consistent quality and prevent errors or omissions in the work process. Working without a procedure increases the likelihood of mistakes and problems. Work procedures provide detailed instructions, which helps prevent injuries and accidents. We accumulate knowledge by reviewing the work after completion.

programs based on data collected from each department.

5 Postscript

This paper outlines our company's initiatives to ensure safety and quality. We believe that "health is an invaluable asset," and we share this belief with all our employees. We are committed to creating a safe, hygienic, and comfortable work environment that allows our employees to work with peace of mind and a sense of well-being.

The principles of safety and quality are fundamentally the same, and it is essential that we approach our work without neglecting either aspect.

Going forward, we will continue to strive for continuous improvement in safety and quality, so that we can maintain the trust of our customers and continue to provide them with safe, reliable, and stable products and services.

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