



Develop Reliability and Management strategy for fertilizer plants

Document Development Guidance

Department: Maintenance

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1. SYNOPSIS

AmmoniaKnowHow.com and UreaKnowHow.com support fertilizer manufacturers by providing essential services to the industry, using our syngas technologies and scientific knowledge developed in multiple projects worldwide.

Together we initiate a program to enhance the [guidelines and procedures](#) for operation, engineering, maintenance and process safety in the fertilizer industry utilizing the best practices and standards available today.

Using knowledge gained from our industry, historic risk registers, lessons learned from projects and from [FIORDA](#) members we are committed to give proper advice to improve safety, reliability and projects performance of fertilizer plants.



2. WHY DEVELOP SPECIFIC GUIDELINES AND PROCEDURES

Guidelines and Procedures are developed to help staff and management teams run the organization. In the best use situations, procedures play a strategic role in an organization. They are developed in light of the mission and objectives of the company and they become the media by which management's plans, rules, intents, and business and operation processes become documented and communicated to all staff.

Carefully drafted and standardized guidelines and procedures save the company countless hours of management time. Guidelines, procedures and employee handbook should be an important part of the operation. They should be the first thing given to a new employee (either in hard copy or an electronic version). They should also be easily accessible in their most up-to-date version. Hence it is extremely important that an organization's procedures are a "living document" prepared and saved in Microsoft Word and easily exported into portable versions (like PDF) and made available over the company network.

3. PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide guidance to Projects and Facilities to support the delivery of Develop Reliability and Management strategy.

It aims to confirm that Projects and Facilities establish the basis upon which they will meet the requirements of the Reliability and Maintenance Management on Fertilizer Plants

4. METHODOLOGY

Each Project and Facilities shall develop and implement a high-level Reliability and Maintenance Management Strategy to manage identified risks and deliver availability in line with the entity business strategy.

5. MAJOR PROJECTS

In accordance with the Major Projects common process each Major Project shall define an Operations and Maintenance strategy. The Operations and Maintenance strategy is a living document that develops over the lifecycle of the project and defines the various activities that shall be carried out to verify readiness for operations.

Each Major Project shall tailor the generic schedule of activities within the 'Application of the Reliability and Maintenance Management Fertilizer Plants to Projects' road map to their specific requirements. Each Major Project shall also document the strategy for confirming their effective and efficient implementation. Consideration shall be given to:

- The specific nature of the project in terms of the type of development.
- The Facility High-Level R & M Management Strategy.
- Local legislative requirements.
- Stakeholder requirements.
- Project contract strategy.
- Reliability and maintenance resource requirements.

Major Projects shall understand the interactions between various activities within the Reliability and Maintenance Management Fertilizer Plants and those that fall outside the scope of this document. Critical examples include:

- Major Accident Hazard Analysis and Performance Standards
- Turnaround Strategy
- Corrosion Management, Inspection and Fabric Maintenance

While each of the above address issues that are not entirely within the scope of the Reliability and Maintenance Management Fertilizer Plants, each has the potential to have a major influence on reliability and maintenance. Major Projects shall recognize this link and confirm that the High-Level R & M Management Strategy appropriately accommodates and addresses these areas.

6. SMALL PROJECTS

Small Projects executed by the Facilities shall follow the intent of the Reliability & Maintenance Fertilizer Plants developing a High-Level R & M Management Strategy incorporating a schedule of activities appropriate to the nature and scale of the project.

Many of these projects are associated with existing operating facilities. As a result, appropriate attention shall be given to verifying alignment with the Facility High-Level R & M Management Strategy and existing Facility reliability and maintenance processes.

Small Projects shall verify that the requirements of the Reliability and Maintenance Management Fertilizer Plants are complied with, working in close cooperation with the Operating Facility.

Small Projects shall verify that:

- There is alignment with the Facility High-Level R & M Management Strategy.
- Where a project is a modification or tie-in to an existing facility, account is taken of the potential impact the project may have on the existing reliability and maintenance program for that facility.

Where the project is a modification or tie-in to an existing facility, the knowledge and experience of the facility reliability and maintenance team are incorporated into the execution of the High-Level R & M Management Strategy.

7. EXISTING FACILITIES

The High-Level R & M Management Strategy for an existing Facility shall be derived from applying the 'Application of the Reliability and Maintenance Management Fertilizer Plants to existing Operations'. The High-Level R & M Management Strategy for each Facility shall document the basis through which conformance with the Reliability and Maintenance Management Fertilizer Plants is achieved including the schedule for the closing of any gaps identified through internal or external R & M assessments.

The High-Level R & M Management Strategy document for each Facility shall be a living document requiring regular review and update.

Facility shall review their strategy following each internal and external R & M assessment to verify that it reflects the actions arising from each review.

The R & M Management Strategy document shall also be reviewed following significant changes in the Facility business strategy, changes in legislation and as part of the incorporation of major new developments.

The High-Level R & M Management Strategy document shall define the key roles and responsibilities of personnel within the Facility's Reliability and Maintenance Management team.

It shall also address the retention and growth of Reliability and Maintenance Management capability within the Facility, verifying that sufficient competent resources are available to meet the strategy.

Facilities shall define a set of Metrics within the High-Level R & M Management Strategy that allow them to monitor the following:

- Reliability and Maintenance performance.
- Progress towards the closure of gaps in conformance with the minimum requirements of the Reliability and Maintenance Management Fertilizer Plants.

8. RESPONSIBILITY

Reliability and Management strategy is a document owned by the Maintenance department within the organization. They are responsible to develop the guidelines and philosophy for Projects and Facilities to support the delivery of company maintenance strategy.

9. DEVELOP YOUR OWN ORGANIZATION PROCEDURES

Although templates can give you a head start on procedures development, other factors must be considered as you write your own internal documents.

One factor is your organization's culture. Organizational attitudes toward procedures determine the spectrum. On one end of the scale are companies that have a procedure for everything. At the other end of the spectrum are companies that only have only a few guidelines (only those required by the laws that are relevant to that company). Most companies fall somewhere in between these two extremes. The manager writing any guideline needs to understand where on the spectrum the company it falls and how the policy can be made to fit the organization's culture to enhance compliance.

Other two factors to be consider when developing guidelines and procedures are the fertilizer technology that company employs and local and international standards applicable to the industry. Internal standards and procedures must be developed in line with these factors, being applicable for your own plants and in line with regulatory requirements.

The last, but not least, factor when developing your own procedures is the best industry practice that you need to employ. Liaison with your fertilizer association, participation in industry meetings and conferences and using fertilizer industry consultants can bring a fresh eye, new ideas and enhance the quality of your own guidelines and procedures.

10. DEFINITIONS

FIORDA	Fertilizer Industry Operational Risks Database
R & M	Reliability & Maintenance

Disclaimer

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