

Guidance Note QGN 23

Facility descriptions for metalliferous mines and quarries

Mining and Quarrying Safety and Health Act 1999

September 2015

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This Guidance Note has been issued by the Mines Inspectorate of the Department of Natural Resources and Mines (DNRM) to assist mine operators to develop facility descriptions required under the legislation.

A Guidance Note is not a Guideline as defined in the *Mining and Quarrying Safety and Health Act 1999*. In some circumstances, compliance with a Guidance Note may not be sufficient to ensure compliance with the requirements of the legislation.

Guidance Notes may be updated from time to time. To ensure you have the latest version, either check the DNRM website <https://www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/legislation-standards-guidelines/recognised-standards-guidelines-guidance-notes> or contact your local inspector of mines.

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1 Introduction

One of the obligations of an Operator under the *Mining and Quarrying Safety and Health Act 1999* (MQSHA) is to provide a facility description to the Mines Inspectorate (MI) prior to operations commencing (for a new mine), or where there is to be significant change to operations (for an existing mine).

2 Background

Even though the MQSHA has a definition for a facility description there has been uncertainty over what is required to be included in the facility description resulting in the content supplied by Operators varying substantially. There have also been circumstances where the facility description has been confused with the plan of operations required under the relevant environmental authority.

3 Purpose and scope

This Guidance Note is intended to assist mine Operators to understand when a facility description needs to be prepared and submitted to the MI and what it should contain to satisfy the requirements for a facility description under the MQSHA.

4 Legislative obligations and risk management

This Guidance Note does not replace a mine operator's requirement to manage safety and health at the mine using risk management practices, as provided by the MQSHA and Mining and Quarrying Safety and Health Regulations 2001 (MQSHR).

Section 26 of the MQSHA, requires operational risk to persons to be at an 'acceptable level'. As such, risk management should incorporate as many controls as necessary, using the hierarchy of controls.

MQSHA

The following Sections relate to the requirements associated with a facility description:

- 9 Meaning of Mine
- 10 Meaning of Operations
- 11 Meaning of Quarry
- 38 Obligations of Operators
- 47 Notices by Operator
- Schedule 2 Dictionary – Facility Description

MQSHR

The following sections support and provide clarification of the above requirements:

- 60 Meaning of Major Hazard Facility
- 60A Meaning of Possible Major Hazard Facility
- 60B Notifying Chief Inspector if Mine is a Major Hazard Facility or Possible Major Hazard Facility
- 60C Notifying Chief Inspector of Certain Upgrades of Mines
- 150 Prescribed number of persons for giving facility description

Copies of the MQSHA and MQSHR is available at www.legislation.qld.gov.au

5 Facility description

5.1 When is a facility description required?

The Operator for a mine must provide a facility description to the MI at least two months before:

- any significant change to operations at an existing mine (with five or more persons)
- commencing operations at a new mine (with four or more persons).

Operations are activities that are principally for or in connection with, exploring for, winning or winning and treating minerals or hard rock and include:

- extracting, loading, transporting, crushing, concentrating, storing, smelting, electrowinning, leaching and processing
- disposing of mineral or waste products in connection with winning, extracting or processing
- constructing, erecting, maintaining or demolishing of any dam, excavation, building, plant, machinery or equipment that is required for winning, or winning and treating, minerals or hard rock or the disposal of mineral or waste products
- rehabilitating a place after operations.

Examples of a significant change include:

- changing the nature of operations, for example, from exploration to extraction and processing, going into care and maintenance, rehabilitation or closure
- changing from an open cut to an underground mine or vice versa
- changing mining method, for example open stoping to block cave
- expansion of a pit operation from the original design
- upgrading or installing a new process plant, (this may include new, crushers, mills or process units)
- relocation of major fixed plant
- reduction, downsizing or ceasing of operational activities
- any other significant change which will significantly alter the risk profile of the mine.

5.2 What should be contained in the facility description?

Some of the information required for the facility description may have been gathered or prepared as part of other activities, including obtaining an environmental authority or for a development or tenure application.

It is important to recognise that when reviewing or preparing this information for inclusion in the facility description its focus is on managing the hazards and risks to the safety and health of persons.

The MQSHA stipulates that the facility description must be a written document that shows or describes:

1. the processes used and materials handled at the mine
2. the layout of operations at the mine
3. the major items of plant and equipment at the mine.

Describing the processes used entails detailing the series of mechanical and/or chemical actions or steps comprising the operations to produce the desired end product(s). While the description of the

materials handled entails detailing the material inputs into and material outputs from the processes. In the context of the facility description this would include the intended method of:

1. exploring for mineral or hard rock
 - a. location, scope and duration of the exploration activity
 - b. whether or not the expected targets are likely to contain lead, uranium or other radionuclides, or any other significant hazardous substance
2. extracting the mineral or hard rock
 - a. nature of the mineral or hard rock being extracted
 - b. overview of mine/pit design
 - c. mining method
 - d. anticipated production rates
3. processing the material to produce the end products
 - a. processing method (for example crushing, screening, concentrating, smelting, electro winning)
 - b. nature of chemicals to be used, created or recovered
 - c. will it be a Possible Major Hazard Facility or Major Hazard Facility
 - d. storage and stockpiles
4. disposing of waste or by products
 - a. tailings dams
 - b. waste dumps
 - c. fill or backfill
5. care and maintenance, all operations undertaken for the care, security and maintenance of the mine and plant when production operations at the mine are suspended
6. rehabilitation
7. closure
 - a. what infrastructure, plant or equipment is to be left behind
 - b. decommissioning/demolition and or removal of plant or infrastructure
 - c. security of excavations (bundling, fencing, backfilling)
 - d. removal or disposal of hazardous substances and dangerous goods
 - e. security of key records including, plans, medical and health monitoring records.

The layout of the operations at the mine can include:

1. surface layout, of operations including major items of plant, roads and buildings
2. proximity to other properties, operations or neighbours
3. for a surface operation the footprint of the area to be extracted including pit footprint and shell
4. for an underground operation an overview of the mine layout and extraction and materials handling this should include, ventilation requirements/design and second means of egress.

The major items of plant and equipment include:

1. itemisation of major items of fixed plant
2. itemisation of major items of mobile equipment
3. overview of electrical generation/distribution system.

Also the following general items should be included in the facility description:

1. Proposed management structure

2. Workforce information
 - a. Number of workers (permanent/contractor)
 - b. Shift rosters
 - c. Commute arrangements (fly-in fly-out, drive-in drive-out)
3. Emergency response capacity/requirements.

In summary the facility description must be sufficiently detailed to enable the hazards and appropriate risk control measures to be readily identified so they can be incorporated effectively into the safety and health management system.

Please contact your local inspector of mines should you need further assistance to decide what should be included in your facility description.

6 References

- *Mining and Quarrying Safety and Health Act 1999*
- Mining and Quarrying Safety and Health Regulation 2001
- NOHSC: 1014(1996) National Standard for the Control of Major Hazard Facilities