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## Overview

This standard states the skills, knowledge and understanding required to demonstrate your competence in about ensuring the availability of the physical resources (equipment, materials, premises, services and energy supplies) required to carry out planned activities in your area of responsibility. It involves identifying the resources required, taking action to obtain these resources, planning how they will be used effectively, efficiently, sustainably, safely and securely, monitoring resource use and taking corrective action, if required.

This standard is appropriate for managers, supervisors, or senior operatives additional supervisory or control who are involved in the managing physical resources, for any type of processing operation within the extractive, mineral processing or related manufacturing industries.

**Performance  
criteria**

- You must be able to:*
- P1 evaluate past patterns of resource use, trends and developments likely to affect future demand for **physical resources** required for the **processing operations** in your area of responsibility
  - P2 identify the range and quantity of physical resources required for the planned **processing operations** in your area of responsibility, including likely contingencies
  - P3 make arrangements with suppliers for **physical resources** to be supplied
  - P4 agree amendments to your planned activities when **physical resources** are not available
  - P5 take action to ensure the security and safe use of **physical resources**
  - P6 continuously monitor the quality and patterns of use of **physical resources**
  - P7 take timely corrective action to deal with any significant discrepancies between actual and planned use of **physical resources**
  - P8 maintain records according to organisational requirements
  - P9 carry out work activities according to **approved policies, procedures and practices**

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**Knowledge and understanding**

*You need to know and understand:*

- K1 how to identify the range and calculate the quantity of physical resources required to carry out planned **processing operations**
- K2 why it is important to involve those who use **physical resources** in identifying, planning and monitoring resources, and how to do so
- K3 who can assist in the identification of the **physical resources** required, planning and monitoring their use
- K4 how to develop an operational plan and make adjustments to the plan
- K5 how to make arrangements with suppliers to ensure **physical resources** are available when required
- K6 the hazards, risks and environmental aspects associated with the types of **physical resources** used for the work activity
- K7 the actions you can take to ensure the security and safe use of **physical resources**
- K8 the importance of continuously monitoring the quality and use of physical resources, and how to do this
- K9 the sources of information on past patterns of **physical resources** use in your area of responsibility and how to access this information
- K10 trends and developments that could affect future demand for **physical resources** in your area of responsibility and how to evaluate the likely impact of these
- K11 the planned activities in your area of activity and possible contingencies
- K12 how to identify the suppliers of the **physical resources** you need
- K13 the limits of your personal authority to obtain and use **physical resources**
- K14 the possible consequences of failure to manage **physical resources** in your area of responsibility
- K15 the **approved policies, procedures and practices** in the context of your work activity and your workplace environment

## Additional Information

### Scope/range

- 1 **processing operations:** must provide performance and knowledge evidence in relation to one or more of the following processing operations categories: Crushing/Screening/Washing; Drying; Concrete/Mortar Production; Asphalt/Coated Materials Production; Density/Fluid Separation; Chemical Separation; Forming; Heat Treatment; Sawing/Splitting/Shaping; Packaging; Water Monitoring
- 2 **approved policies, procedures and practices:** legislative, organisational, operational, emergency, health and safety, and environmental as appropriate to the plant or machinery and work activity
- 3 **physical resources:** tools and equipment, materials, consumables, premises, services, energy supplies and other physical resources as applicable to the processing activity and your area of personal responsibility

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**Glossary****Categories of Processing Operations for the E&MPI****1. Crushing/Screening/Washing**

The reduction in size of as extracted material by mechanical crushing equipment (fixed or mobile), grading by size and water washing of that material. This would also include blending or adding water to meet customer specification.

**2. Drying**

The application of heat in any type of oven to remove excess water from the as extracted or processed material

**3. Concrete/Mortar Production**

The production of concrete, mortar and similar materials, by batch (wet batch or dry batch) or continuous production. It is limited to the production of the material, and does not include the subsequent use of the material to make a product, for example a concrete block by casting/forming.

**4. Asphalt/Coated Materials Production**

The production of asphalt and other similar coated materials by any type of batch or continuous production

**5. Density/Fluid Separation**

Includes all processes to increase the purity and quality of the rock or minerals, or to separate different minerals utilising their differing physical properties (e.g. weight, density, shape, solubility), which may be a dry process or with the assistance of a fluid (e.g. air, water, other liquids).

**6. Chemical Separation**

The separation of rocks or minerals utilising their different chemical properties, or differing reactivity, which may involve the introduction of another chemical substance or substances to select the desired product. Note; this may often be combined with Density/fluid separation. This will also include those operations used to release the separated mineral from the separating additive

**7. Forming**

Moulding, casting, forming, compressing or similar operations to produce a solid product of a shape to meeting customer requirements or aid transportation

**8. Heat Treatment**

The application of higher levels and duration of heat to change the physical or chemical properties of the rock or mineral, e.g.s. calcining, cement production.

**9. Sawing/Splitting/Shaping**

The use of specific plant/machinery to change the physical size and/or shape of a piece of (usually) dimensional stone to meet customer requirements

**10. Packaging**

The partial or total enclosure of the rock or mineral, which would normally be done to aid storage or transportation, or to meet customer requirements.

**11. Water Monitoring**

The extraction of a mineral from a mineral body (solid or broken) or a tip/stockpile by the use of a high pressure water jet.

## MPQPO17

### Manage physical resources for processing activities

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<b>Suite</b>	Processing Operations for the Extractive and Minerals Processing Industries
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