

Similar Exposure Groups (SEGs)

This information sheet provides guidance on SEGs, SEG listings, and how to establish site specific SEGs. It also provides the specific SEG classifications required for the submission of personal dust monitoring records periodically to the Department of Natural Resources and Mines.

What are SEGs?

SEGs are used to identify a group of workers who have the same general exposure to risks. This can include:

- similarity and frequency of the tasks performed
- the types of materials and processes used to complete tasks
- similarity of the way tasks are performed.

Mines should establish and use their own SEGs based on observation and sampling of their specific work groups. To facilitate reporting of SEGs to the Mines Inspectorate, a list of SEGs are provided on the following page. These are to be used when reporting quarterly respirable dust records to the department.

Benefits of SEGs

The nature and extent of the risks to which every worker is exposed should be identified and the level of risk assessed. Grouping workers into a SEG avoids having to assess every position individually.

If the members of a large work group do a similar job and are exposed to similar risks, data from a representative sample of those workers can be used to predict the exposure of the whole group.

How to establish SEGs

The most acceptable method for a mine to establish their own SEGs is by observation and sampling.

Observation involves grouping work activity according to the task, job description, the process, and exposure to any agent in the

work environment and control measures applied.

Identifying SEGs by observation alone is not sufficient because exposure can alter with differences in work techniques from one worker to another or from shift to shift. Sampling data is required, either historic data or data collected for the purpose of defining a SEG, to support the observational data. With sufficient data collected, statistical analysis can confirm that the group is representative of a SEG.

SEGs for reporting data

From 1 January 2017, mine operators are required to report personal respirable dust monitoring records to the department on a quarterly basis.

To report data, mine operators must use the SEG categories provided in this information sheet.

The SEGs provided are sufficiently generic and broad to enable comparison across the industry. For example, respirable dust data collected for 'longwall production' workers can be collated and analysed to identify trends in this group across mine sites.

Further information

Visit www.qld.gov.au

Email minesafetyandhealth@dnrm.qld.gov.au

Call 13 QGOV (13 74 68)

References

Mulhausen, J, & Damiano, J. (2006). A Strategy for Assessing and Managing Occupational Exposures. Fairfax: American Industrial Hygiene Association.

SEG categories

Table 1 – Underground coal mines SEG listing

SEG	Primary Task descriptions	Code
Longwall production	Employees and contractors who operate or rotate through the following tasks: operating shearer (tailgate or maingate); operating maingate drive; operating chocks / shields.	QCU001
Development production	Employees and contractors operating as a continuous miner; operating a shuttle car or ram car; undertaking roof and rib bolting; hanging hoses, handling cables, hanging vent tubes, performing belt extensions, hanging brattice.	QCU002
Underground maintenance	Employees and contractors performing mechanical maintenance services underground; performing electrical maintenance underground; undertaking mechanical repairs and vehicle servicing underground.	QCU003
Outbye supplies	Employees and contractors delivering supplies to underground locations on LHDs, jugganauts and personnel transporters. This includes waste management activities.	QCU004
Longwall moves	Employees and contractors operating dozers, LHDs, driftrunners performing face retraction and installation, or involved in the face retraction/ installation including fitters, electricians and mine technicians.	QCU005
Outbye construction / infrastructure	Employees and contractors performing roadwork construction and maintenance underground; installing / removing infrastructure underground including hoses, cables, lights and pipe work; shotcreting and concreting underground.	QCU006
VCD installers	Employees and contractors spraying stoppings and using jackhammer, and conducting VCD removal tasks.	QCU007
ERZ controllers	Employees and contractors performing inspections and statutory duties in production panels, returns and outbye locations.	QCU008
Surface maintenance	Employees and contractors servicing / maintaining vehicles in surface workshop.	QCU009
Control room operator	Employees and contractors involved in control room operations.	QCU010

SEG	Primary Task descriptions	Code
Belt splicers	Employees and contractors performing belt maintenance, splicing and commissioning.	QCU011
Boilermakers (surface)	Employees and contractors involved in steel fabricating, welding, oxy cutting, air gouging—surface workshop and CHPP workshop.	QCU012
Administration	Administration officers, stores, management and surface cleaners.	QCU013
Resin workers	Employees and contractors undertaking resin injection and void filling activities throughout the underground workings. This includes the use of polyurethane resins (PUR) and phenolic resins.	QCU014
Stone driveage	Employees and contractors involved in mining through stone, faults and intrusions (e.g. for mine expansion or drift construction). Doesn't include development or longwall workers who encounter small areas of faulted ground or stone banding.	QCU015
Secondary support	Employees and contractors undertaking secondary support tasks including bolting; building cogs; standing cans; building bulkheads; injecting cementitious products (grout).	QCU016
Gas drainage	Employees and contractors undertaking gas drainage tasks.	QCU017
Shift co-ordinator / management	Shift or section coordinators and under managers.	QCU018
Production support (bullgang, longwall support, development support, window crew)	Employees and contractors undertaking longwall support and development support activities. This may include some minimal coal winning activities within their work period (e.g. straightening shear, bolting unsupported ground etc).	QCU019
Returns	Employees and contractors routinely undertaking maintenance, construction, service recovery, secondary support, stone dusting and services extension / retractions activities in return airways.	QCU020
Surface other	Employees and contractors performing any other tasks on the surface of an underground mine that are not adequately represented by any other SEG.	QCU021
Underground other	Employees and contractors routinely performing any underground non-production tasks underground that are not adequately represented by any other SEG.	QCU022

Table 2 – Coal handling preparation plant (CHPP) SEG listing

SEG	Task descriptions	Code
CHPP production	Employees and contractors involved in control room operations, hosing, clearing blockages, shovelling, bobcat, general maintenance and train loading out.	QCP001
CHPP maintenance	Employees and contractors undertaking electrical and mechanical maintenance throughout the plant and in the workshop.	QCP002
CHPP laboratory	Employees and contractors taking samples and processing samples in CHPP laboratory.	QCP003
CHPP dozer	Employees and contractors operating CHPP stockpile dozer.	QCP004
Belt splicers	Employees and contractors performing belt maintenance, splicing and commissioning	QCP005
CHPP other	Employees and contractors performing any other tasks at the CHPP that are not adequately represented by any other SEG.	QCP006

Table 3 – Open cut coal mines SEG listing

SEG	Task descriptions	Code
Pre-strip and overburden removal	Employees and contractors working in pre-strip areas of the mine and operating equipment (e.g. haul trucks, loaders, dozers, graders and excavators).	QCS001
Coal removal	Employees and contractors involved in the removal of product coal (e.g. digger/shovel, dump trucks).	QCS002
Open cut inspection services	Employees and contractors performing inspection and monitoring tasks in the mining and excavation areas (e.g. OCE and shift supervisors).	QCS003
Road maintenance	Employees and contractors involved in road maintenance operations including grader and water truck.	QCS004
Boilermaker	Employees and contractors involved in steel fabricating, welding, oxy cutting, air gouging—surface workshop and CHPP workshop.	QCS005
Field maintenance	Employees and contractors undertaking electrical and mechanical maintenance activities predominantly in the mining areas.	QCS006
Blast crew	Employees and contractors undertaking blasting and shot firing duties.	QCS007

SEG	Task descriptions	Code
Tech services	Employees and contractors performing mine planning and design (includes surveyors, geotechnical engineers).	QCS008
Exploration drillers	Employees and contractors undertaking exploration drilling operations including exploration geologists.	QCS009
Blast hole drillers	Employees and contractors undertaking blast hole drilling operations.	QCS010
Belt splicers	Employees and contractors performing belt maintenance, splicing and commissioning.	QCS011
Warehousing	Employees and contractors undertaking warehousing activities including forklift operation.	QCS012
Administration	Administration officers, stores, management and security.	QCS013
Workshop	Employees and contractors undertaking electrical and mechanical maintenance and services predominantly in the workshop.	QCS014
Service crew	Employees and contractors supplying fuel, grease and oil to mobile plant throughout the mine.	QCS015
Tyre fitters	Employees and contractors performing tyre handling, tyre fitting and tyre repair duties.	QCS016
Dragline	Employees and contractors operating or supporting dragline operations.	QCS017
Production dozing	Employees and contractors operating in production dozing operations.	QCS018
Emergency Response personnel	Employees and/or contractors whose principle responsible is supplying emergency response capability.	QCS019
Open cut other	Employees and contractors performing any other tasks at an open cut mine that are not adequately represented by any other SEG.	QCS020