

ROYAL OAK MINES INC.
YELLOWKNIFE DIVISION

OK R. H. H.

COMPANY POLICY AND STANDARDS

EFFECTIVE DATE:

SECTION : Mill Department

PREPARED BY : Safety Department

  OK
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APPROVED BY : Mill Superintendant

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AUTHORIZED BY : General Manager

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SUBJECT : ARSENIC CONTROL

OBJECTIVE: To develop and implement standards that will assist in the control of health hazards created by occupational exposure to arsenic.

SCOPE : All personnel working in potential arsenic exposures.

POLICY : All personnel involved in the planning, design and implementation of processes involving the production of arsenic must comply with the Standards for Arsenic Control.

RESPONSIBILITIES:

Senior Management in Mill Department

- 1) Will ensure that the standards for arsenic control are complied with in the design and planning of changes to the workplace or process.
- 2) Will ensure that all first line supervision are in compliance with the standards through regular tours of the area and review of records.

Front Line Supervision

- 1) Will ensure that the worker is in compliance with the standards for arsenic control through instruction in and monitoring of personal hygiene, and safe work practices.

The Worker

- 1) Will once informed, be responsible to comply with the standards for arsenic control.

Safety and Training Department

- 1) Will ensure compliance with the arsenic control standards through regular testing of urinary arsenic levels, annual medicals and auditing of airborne testing results.

ARSENIC HEALTH HAZARD CONTROL STANDARDS

1) AIRBORNE ARSENIC LEVELS

1.1 The time-weighted average exposure of a worker to airborne arsenic shall not exceed 0.05 mg per m³ of air.

1.2 Subject to subsection 4, the level in subsection 1 shall be met without requiring a worker to wear and use respiratory equipment.

1.3 The time-weighted exposure of a worker to airborne arsenic shall be measured _____.
A copy of these results will be sent to the Occupational Health Nurse and to the Surface Safety Co-ordinator.

1.4 Where the level in subsection 1 cannot be complied with because,

a) an emergency exists; or

b) the measures and procedures necessary to control the exposure,

i) do not exist or are not available;

ii) are not reasonable or practical for the length of time or frequency of exposure or the nature of the process, operation or work; or

iii) are not effective due to a temporary breakdown of equipment.

the worker shall be provided with respiratory equipment which shall be used by the worker.

1.5 The respiratory equipment provided shall be appropriate in the circumstances for the type and concentration of airborne arsenic.

1.6 The company shall provide training to a worker in the proper care and use of respiratory equipment.

2) HYGIENE PRACTICES

2.1 Workers shall be advised of the danger of eating, drinking and smoking in arsenic exposed areas. These activities shall take place only in the lunchroom. All workers shall be made aware of the health hazards associated with arsenic.

2.2 Workers shall be instructed in proper work practices, appropriate clothing and the removal of and care of such clothing.

2.3 Welders shall be informed of the dangers of welding on a surface without removing dust containing arsenic.

3) HEALTH SURVEILLANCE

3.1 The objective of a health surveillance program is to protect the health of workers by:

- i) ensuring fitness for ongoing exposure to arsenic;
- ii) evaluating the absorption of arsenic in workers;
- iii) enabling remedial action to be taken when necessary.

3.2 The health surveillance program shall consist of the following:

- i) Pre-employment and preplacement examinations;
- ii) Annual medical examinations;
- iii) Clinical tests;
- iv) Record keeping.

3.3 The medical examination shall include the following:

- i) History of previous exposure to arsenic, present exposure to arsenic, personal habits and enquiry for signs and symptoms that may be an early indication of arsenic toxicity.
- ii) A general physical examination with particular attention to those systems which may be affected by arsenic. Personal hygiene must be noted.

3.4 Urine samples shall be collected by the Occupational Health Nurse every three months. The samples are sent to Nerco Environmental Lab for analysis.

3.5 Every six months, samples will be split and sent to Dr. Hansen & Associates Lab in Edmonton for quality assurance.

3.6 Action levels shall be as follows:

- i) A concentration of 2 umol/gm creatinine requires inquiry regarding work practices and personal hygiene.
- ii) When the concentration is greater than 2 umol/gm, the worker shall be removed from arsenic exposure until two consecutive samples test <2 umol/gm.
- iii) Urine samples will be collected daily from a worker with levels >2 umol/gm until acceptable levels are reached.
- iv) When an affected worker returns to arsenic exposure urine samples will be collected daily for his set of shifts.