

## 1. INTRODUCTION

The employer recognizes that exposure to airborne pollutants, harmful gases, fumes or vapors may lead to or aggravate respiratory diseases. The employer also acknowledges that it has a moral and legal obligation to protect its employees against the ill-health effects of exposure to these substances, and therefore commits to the implementation of the following programme.

## 2. GENERAL

The foundation of the Respiratory Conservation Programme, will be, hazard identification, Occupational Hygiene measuring and monitoring with the assessment and selection of proper Respiratory Personal Protective Equipment. This process must be conducted in the same manner as for other types of Personal Protective Equipment. In the control of those occupational diseases caused by breathing air contaminated with harmful airborne pollutants. The primary objective shall be to control the risk at source. This shall be accomplished as far as possible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, appropriate Respiratory Protective Equipment shall be used.

## 3. RESPONSIBILITIES AND DUTIES

All Employees and contractors shall follow the requirements of the [program](#).

### MANAGEMENT

- Implement the requirements of this program.
- Provide a selection of fit for purpose, hazard rated, respirators as required.
- Ensure that the respirators fit properly.
- **Ensure that sufficient respiratory protective equipment is available at all times.**
- Enforce all provisions of this program.
- Monitor compliance of this program.

- Provide training for employees.
- Ensure respirators are worn properly, **are** inspected, cleaned and maintained.
- Provide a medical **program** for the detection and monitoring of respiratory diseases.
- Utilise and maintain dust suppression systems.

## EMPLOYEE DUTIES

All employees have a legal obligation to comply with all reasonable measures to protect their health in the workplace. Failure to comply with these measures may lead to the implementation of disciplinary processes. **Measures include but are not limited to:**

- **Assisting during the risk assessment process.**
- **Reporting faulty equipment that causes excessive dust emissions.**
- **Ensuring that the manual dust suppression systems are used.**
- **Ensuring that respiratory protective equipment is worn.**
- **Ensuring that all visitors and other employees entering the area, wear the respiratory protective equipment.**
- **Ensuring that dirty respiratory protective equipment is replaced.**

## 4. MEASUREMENTS AND SURVEYS

In terms of the Mine Health and Safety Act and Occupational Health and Safety Act, the employer commits to appoint a suitably qualified person, an Approved Inspection Authority (AIA), to measure the air-borne pollutant exposure levels in all suspected areas as per the specific sampling strategy laid out in the guidelines for the **Code of Practice** for Air-borne pollutants, the **Mine Health and Safety Council** Hand Book for Occupational Hygiene and **South African Institute of Occupational Hygiene**, and to report back to management and the employees on the levels of exposure in the different sections of the organisation. These reports need to link back to the employee's health records from the **Occupational Medical Practitioner** and records of exposure. These reports will be submitted to the **Department of Mineral Resources and Energy** on a quarterly basis and to the **Department of Labour** on a 2-yearly basis.

## **5. TRAINING**

Effective training and mask fit testing for employees who are required to use respirators/masks is essential. The employer commits to train, and to document such training, all employees exposed to excessive air-borne pollutants (dust, fumes, mists, gases, smoke, sprays, or vapors) in the workplace. Training and fit testing will take place every year after resumption of work after shutdown or every time there is a change in the process.

Training shall include basic information on the nature of air-borne pollutants, the hazards of exposure to excessive air-borne pollutants, the consequences of such exposure, protective measures available to protect employees against ill-health effects due to air-borne pollutant exposure, the proper use and maintenance of respiratory protective equipment (RPE), and the right to compensation of employees suffering from work related lung disease. Training will be provided prior to requiring the employee to use respiratory protection in the workplace.

## **6. RISK CONTROL**

The employer commits to evaluating all sources of harmful air-borne pollutants to ensure attenuation of the risk to employees. Attenuation may include engineering, respiratory protective equipment and administrative controls to reduce the risk. All possible solutions will be evaluated for cost-effectiveness. The employer will, at its cost, also ensure that all employees and visitors entering demarcated respiratory areas are provided with effective protection against harmful air-borne pollutants. These measures to provide for the protection against air-borne pollutants will be evaluated annually to ensure effective reduction of exposure to these harmful pollutants.

## **7. LUNG FUNCTION TESTING**



The employer will ensure that all employees entering demarcated respiratory zones as part of their duties, undergo lung function testing before commencing with work, in the following manner:

- During a pre-placement medical examination - to determine the baseline lung function status of the prospective employee.
- Chest x-rays will be done every three years or at intervals determined by the Occupational Medical Practitioner dependent on the employers' risk profile.
- During periodic medical examinations at intervals not exceeding 1 year or depending on the **Hazard Identification and Risk Assessment** requirements. Trends will be identified and analyzed to ensure that there is compliance with the **program** and early intervention strategies, should any possible occupational lung disease be identified.
- At exit medical examinations, to record the lung health status of the employee on termination of employment with the employer. This will ensure compliance with Section 17 of the **Mine Health and Safety Act**, and these records will be submitted according to legal requirements.

## 8. INCIDENT INVESTIGATIONS

The employer commits to do health incident investigations in terms the MHSA and OHSA. This will be done on all cases where there is deterioration in lung function detected in employees, and where this deterioration was certified as being due to exposure to air-borne pollutants, by an Occupational Medical Practitioner. These incident reports will form part of the monthly Occupational Health reports submitted to the Department Mineral Resources and Energy and Department of Health where necessary. **The investigation team will consist of the Occupational Hygienist, Occupational Medical Practitioners, the Supervisor/Manager and the involved individual. People Management will be consulted if incapacity management is unavoidable.**

Corrective actions on all non-conformances found in the respiratory conservation programme will be implemented and documented.



## 9. PROGRAMME EVALUATION

Evaluations of the workplace will be undertaken to ensure that the written respiratory protection program is being properly implemented. This includes consulting with employees to ensure that they are using the respirators properly. Evaluations shall be conducted as necessary, to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective. **Equipment will be evaluated during physical inspections and audits and excessive dust emissions reported to the production and maintenance teams to reduce the dust through engineering controls or ensuring the necessary repairs are undertaken for the dust suppression units to work effectively. Where any new process or equipment or additional equipment is installed the Occupational Hygienist must be informed to ensure exposure limits are evaluated.**



**Guideline: Respiratory Conservation**

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