

## 1. Introduction

Afrimat acknowledges that exposure of employees to industrial noise more than a time-weighted average over 8 hours (8-hour TWA), of more than 85 decibels (dBA), may lead to noise induced hearing loss (NIHL). The employer also acknowledges that it has a legal and moral duty to protect its employees against the ill-health effects of exposure to excessive noise, and therefore, in accordance with SANS 10083:2023 commits to the implementation and maintenance of the following programme:

- This programme will be reviewed every two years.
- If there are reasons to believe the previous risk assessment is no longer valid.
- It is believed that the control measures are no longer effective.
- There are technical or scientific advances to allow for more efficient control methods.

## 2. Noise measurement

Afrimat commits ensure that the noise assessment measurements are done by persons authorized by the relevant national body to carry out these measurements to the required legal standard. They will provide each business unit manager with the results of area noise measurements, sources of noise emission, and recommendations on measures that can be used to reduce the noise in these areas. Mining operations will be supplied with the reports in the required format for quarterly submission to the DMRE.

In addition, these measurements will guide in the demarcation of noise zones, measure the effectiveness of measures taken to reduce noise exposures and guide in the appropriate selection of personal hearing protection.

## 3. Noise zoning

Afrimat commits to demarcate all areas where noise exposure of more than 8-hour TWA (Time weighted average) of 85 dBA are identified as noise areas.

These areas will be clearly demarcated with the conspicuous placement of appropriate mandatory symbolic signs for the use of hearing protection at all entrances and exits to the area and identified on a map of the plant and should be available at the administration hub of the business unit.

Afrimat will ensure that where additional infrastructure is to be altered, it adjudicates the layout plans and proposed equipment, to predict by calculation the noise exposure/emission that will result from these changes and demarcates these areas accordingly.

## 4. Noise training

Afrimat commits to train and document such training, on all employees exposed to noise levels above 85 dBA in the workplace, on the hazards of noise exposure in the workplace.

Training 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:

- Content and scope of the hearing conservation programme for the site.
- Potential sources of exposure to noise.
- Potential risks to health caused by noise and shall include but not be limited to:
  - The assessment of exposure, the purpose of noise monitoring, the necessity for medical surveillance and the long-term benefits and limitations of undergoing such surveillance.
  - Noise rating limit for hearing conservation and its meaning.
  - Procedures for reporting, correcting and replacement of defective hearing protectors and engineering control measures.
  - The duties of employees who may be exposed to noise above the noise rating limit for hearing conservation.
  - Precautions to be taken by an employee to protect themselves against the health risks associated with exposure to noise, including wearing and use of personal hearing protection.
  - The proper use and maintenance of personal protective equipment (PPE).
  - The necessity of audiometric training and medical surveillance to monitor possible hearing impairment, and the need for the employee to understand the results of their test.
  - Applicable disciplinary measures should the employees fail to comply with the company requirements.

## 5. Equipment procurement considerations

When the need arises to procure new or replacement equipment at mining operations, the person responsible for procurement may wish to consider the IBMQI Industry-wide Buy and Maintain Quiet Initiative principles listed below, with a view to making an informed decision regarding the procurement of the appropriate equipment from an IBMQI perspective:

- Confirm that where the noise levels emitted by the equipment exceed 85dB(A), a noise certificate supplied by a certified service provider is available. The noise level can be confirmed by obtaining a third-party noise verification measurement.
- When the Original Equipment Manufacturer (OEM) is engaged and the parties involved agree that the equipment does not meet the set noise emission limit, consider initiating a noise reduction process (IBMQI Industry-wide Buy and Maintain Quiet Initiative process)
- If an industry noise emission limit does not currently exist for any given piece of equipment, or equipment population, then the operation should consider establishing its own internal limit, based on their equipment noise screening results (IBMQI process)

- Request the OEM to provide details of any alterations made to the equipment which may reduce the noise emissions from the equipment, accompanied by a third-party noise verification measurement from the OEM, or from an accredited service provider
- Request the OEM to indicate other noise-related issues (i.e. vibration) that need to be considered
- Request OEM upgrades (if available) for replacement or alterations to be made to the equipment exceeding 85dB(A)
- Request the OEM to indicate the likelihood of equipment noise emission increases because of wear and tear
- Obtain the repair/maintenance procedure from the OEM
- Obtain an agreement on the repair/replacement strategy and frequency if an external service provider is used to service the equipment
- Apply a price modifier based on compliance or non-compliance and calculate the cost
- Select the final supplier having regard, *inter alia*, to the above parameters relating to noise emission
- Ensure that all the equipment documentation is obtained prior to equipment delivery, to enable the operation to verify compliance with the relevant aspects listed above

#### 6. Repair / maintenance of existing equipment.

In most cases, an operational mining site/business unit will already have numerous pieces of equipment/machinery in use. These pieces of equipment/machinery might not all meet the industry noise milestone or the company internal noise emission limits. It is important that mining sites/business units initiate processes which will enable the achievement of these limits for the IBMQI to be effective. The section below describes the process that could be considered to reduce noise levels to below the required noise emission limits:

- When the OEM is engaged and the parties involved agree that the equipment does not meet the set noise emission limit, consider initiating a noise reduction process (IBMQI Industry-wide Buy and Maintain Quiet Initiative process)
- Determine whether the equipment noise emission exceeds the relevant industry noise milestone or internal operational noise emission limits and confirm whether the piece of equipment was identified as a 'critical noise equipment' (IBMQI Industry-wide Buy and Maintain Quiet Initiative process)
- Confirm that noise certification exists when the equipment exceeds 85dB(A) and when equipment is repaired/maintained by a third party. This could be confirmed by obtaining a third-party noise verification measurement from the service provider
- If an industry noise emission limit does not currently exist for any given piece of equipment, or equipment population, then mining sites/business units must consider establishing their own internal noise emission limit, based on their equipment noise screening results (IBMQI Industry-wide Buy and Maintain Quiet Initiative process)
- Obtain the details of any alterations and updates made to the equipment to reduce the noise emission

- Obtain details of any other noise related issues (i.e. vibration) that need to be considered
- OEM upgrades (if available) for replacement or alterations to be made to the equipment exceeding the relevant operational noise limit of 85dB(A) if no operational limit is defined
- Establish the likelihood of equipment noise emission increases, because of wear and tear and adjust the NRR of the PPE use accordingly.
- Consult the OEM on the appropriate repair/maintenance procedure and intervals and agree on a repair/maintenance/replacement strategy
- Conduct noise emission verification measurements of the equipment after onsite modifications/repairs have been completed to confirm compliance (as per the Noise Measurement Guide)

#### 7. Risk control

Afrimat commits to evaluating all sources of excessive industrial noise for attenuation of the risk to employees. Attenuation may include engineering and administrative controls to reduce the exposure, and all possible solutions will be evaluated for cost-effectiveness and efficacy.

#### 8. Personal protective equipment

Afrimat will, at its cost, ensure that all employees and visitors entering noise-zoned areas are provided with effective hearing protection. The hearing protectors provided will be evaluated to effectively reduce the exposure to industrial noise in these areas to less than 8-hour TWA of 85 dBA.

The wearing of personal hearing protection in noise zones will be monitored and enforced by Afrimat.

#### 9. Hearing testing

Afrimat will ensure that all employees entering noise zones, as part of their duties, undergo hearing testing (audiometry) that complies with the latest SANS codes for audiometry.

- During a pre-placement medical examination - to determine the baseline hearing status of the prospective employee and suitability for placement in a noise zone.
- During periodic medical examinations at intervals not exceeding 1 year – to determine any adverse trends in the employees hearing acuity.
- At an exit medical examination and before termination – to determine the hearing status of the employee on termination of employment with Afrimat.

Afrimat undertakes to ensure:

- All employees are given copies of their entry and exit audiograms when they leave the company's employment.

- All staff conducting audiometric testing have the appropriate competencies.
- All equipment used is calibrated and reports meet the legal requirements.
- Appropriate intervention and reporting measures as prescribed in the SANS standard are done and recorded.
- Records of the employee's workplace exposures are placed on their medical records.
- Appropriate referrals and compensation claims are submitted by the company.


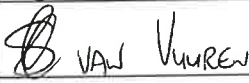
**10. Incident investigations.**

*The employer* commits to do incident investigations on all cases where impairment or deterioration of more than 15dBA is noticed, at any frequency, and where this deterioration was certified as being due to exposure to excessive noise by an Occupational Medical Practitioner. The reports there-of, are to be submitted to the Department Mineral Resources and Department of Health where required.

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

**11. Employee duties**

*The employer* expects all employees to comply with all reasonable measures to protect their hearing in the workplace and may not allow any person to enter or remain in a noise zone without adequate protection. Employees must maintain and look after their hearing protection and replace it at required intervals. Employees must report hearing protection that is damaged or lost to their supervisors or management immediately. Failure to comply with these measures may lead to implementation of the disciplinary process.

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