Notice to all Audiometrist

Regulation 839 was published in the Government Gazette on 15 July 2016.

This Regulation comes from the Department of Mineral Resources and is therefore only applicable to the Mining Industry.

The title of the Regulation is

Guidance note for the implementation of

STANDARD THRESHOLD SHIFT IN THE MEDICAL SURVEILLANCE OF NOISE INDUCED HEARING LOSS

The gazette is available free online at www.gpwonline.co.za

Herewith a summary of the guideline

Objective
The Mining Industry is implementing the STS (Standard Threshold Shift) principles to prevent noise induced hearing loss in line with the 2015 Milestones for the Mining Industry.

PLEASE NOTE: The STS principles do not apply to compensation for industrial hearing loss and is not meant to replace Instruction 171.

Definitions

“Audiometric zero” means milestone baseline.

“Milestone baseline” means the initial audiometric value determined at the first STS testing.

“Reportable level” means the STS that is reported in terms of milestone monitoring if the average change in hearing from “audiometric zero” NOTE a STS of 25dB or greater hearing loss at the same frequencies in the same ear is reportable.

“Standard threshold shift (STS)” means an average change in hearing of 10dB or more at the frequencies of 2000Hz, 3000Hz and 4000Hz in one or both ears as compared to the employee’s milestone baseline audiogram.

Aspects to be addressed in the guidance note

Determine milestone baseline
1. A milestone baseline audiogram must be conducted on every current employee working in a noise zone
2. From 1 July 2016 a milestone baseline audiogram must be conducted within 30 days of commencement of employment on every new employee exposed to a noise zone
3. Milestone baselines must only be conducted if the employee was removed from the noise zone for at least 16 hours
4. A milestone baseline audiogram is the better of the employee’s two audiograms performed by an audiometrist on the same day and that do not differ from each other by more than 10dB for any of the frequencies in the 2000, 3000 and 4000Hz test ranges in one or both ears.
5. If two audiograms do not conform to the requirements above, the employee must be referred to an audiologist to establish the milestone baseline.
6. All subsequent audiograms conducted during medical surveillance examinations, will be compared to the milestone baseline audiogram to determine if a STS has occurred and if the STS is reportable.
7. An employee’s milestone baseline must be recorded and kept for 40 years with the medical surveillance records.
8. The milestone baseline on the employee as conducted in terms of this guidance note, will be considered as the employee’s milestone for the purposes of reporting on the 2015 Milestone for the duration of their total working career at that specific employer, or until a reportable level is reached.
9. When a reportable level is reached, the audiogram conducted at that time, becomes the new milestone baseline for the purposes of future monitoring.

Monitoring for STS
1. During medical surveillance the audiogram of the employee must be evaluated to determine if and STS has occurred and whether it is reportable.
2. Once a reportable STS has been determined, the employee must be informed of the STS and the implications thereof. The employee must be counselled on the danger of exposure to noise and the hearing protection measures. The employer must be advised on management measures to prevent permanent hearing loss to this employee.

Process for measurement and management of STS

Step 1 – Is there a STS, compared to the milestone baseline?

That is – is there an average change in hearing of 10dB or more at the frequencies of 2000, 3000 and 4000 in one or both ears?

If No – no further action

If Yes
Step 2
Determine if the STS is 25dB or greater

If No – no further action

If Yes
Step 3
Determine whether the hearing loss is work related.

If No – counsel the employee on the danger of risk outside the work environment

If Yes - Counsel the employee on the danger of exposure to noise in the work place. Advise the employer to take appropriate management measures to prevent permanent hearing loss in employees who exposed to significant noise level. Report the hearing loss to the employer in terms of the 2014 MHSC Summit milestones.

Reporting Milestone STS Cases

Reporting should be done in line with the MHSC Milestone Reporting Template

Implementation

Milestone baselines should be completed by 31 December 2017. A Milestone baseline audiogram must be conducted between 1 July 2016 and 31 December 2017 on every current employee working in a noise zone.
From 1 July 2016, a milestone baseline audiogram must be conducted within 30 days of commencement of employment on every new employee who will be working in a noise zone.

The monitoring for the STS from the milestone baseline will commence from 1 January 2018.

Additional notes

1. Example of the calculation of STS

Example 1

<table>
<thead>
<tr>
<th></th>
<th>L500</th>
<th>L1K</th>
<th>L2K</th>
<th>L3K</th>
<th>L4K</th>
<th>L6K</th>
<th>L8K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestone</td>
<td>5</td>
<td>5</td>
<td>20</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Surveillance</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>30</td>
</tr>
</tbody>
</table>

STS calculation 0 + 0 + 5 = 5 divided by 3 = 1.66 dB therefore no STS left

<table>
<thead>
<tr>
<th></th>
<th>R500</th>
<th>R1K</th>
<th>R2K</th>
<th>R3K</th>
<th>R4K</th>
<th>R6K</th>
<th>R8K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestone</td>
<td>20</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>15</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Surveillance</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>5</td>
<td>30</td>
<td>20</td>
<td>35</td>
</tr>
</tbody>
</table>

STS calculation 15 + 0 + 15 = 30 divided by 3 = 10 dB right

This employee had a STS of 10 dB

Example 2

<table>
<thead>
<tr>
<th></th>
<th>L500</th>
<th>L1K</th>
<th>L2K</th>
<th>L3K</th>
<th>L4K</th>
<th>L6K</th>
<th>L8K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestone</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Surveillance</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>30</td>
<td>20</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

STS calculation 5 + 15 + 15 = 35 divided by 3 = 11.66 dB STS 11 dB left

<table>
<thead>
<tr>
<th></th>
<th>R500</th>
<th>R1K</th>
<th>R2K</th>
<th>R3K</th>
<th>R4K</th>
<th>R6K</th>
<th>R8K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestone</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Surveillance</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>35</td>
<td>15</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

STS calculation 10 + 5 + 25 = 40 divided by 3 = 13.3 dB STS 13 dB right

This employee has an STS in both ears

2. All software will need to be updated to include the milestone baselines and the STS calculations. Some of the software version has been upgraded all ready. Please check with your service provider.

Karin Meyer  B Cur DOHN
SASOHN Audio Portfolio