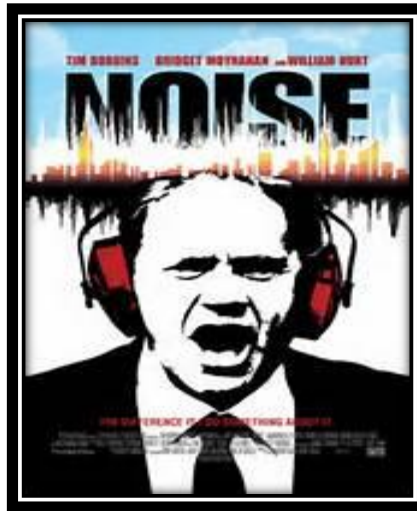


TAKLIMAT SEMAKAN LAPORAN PEMONITORAN BISING



ABDUL GHAFAR BIN HASAN

Unit Pengiktirafan Dan Pemantauan
Kompetensi Higien

Perundangan

- Akta kilang Dan jentera 1967 (peraturan kilang dan jentera (Pendedahan Bising) 1989
- Orang Yang Kompeten (Per. 14)
- Permonitoran Awalan (Per. 9)
- Pemonitoran Positif (Per. 11)
- Pemonitoran Tambahan (Per. 12)
- Had Pendedahan Yang dibenarkan/ Jadual Pertama (Per. 5)
- PPE (Per. 15)
- Penalti RM 1000.00 (Per. 34) dsb.

Borang Semakan Laporan

- Terdapat 2 jenis borang dibangunkan oleh Bahagian Higien Industri Dan Ergonomik Putrajaya.

1. Senarai Semak Laporan OYK Pendedahan Bising.doc

2. Guidelines on report writing - NOISE.doc



Muka Depan

- Jenis Pemonitoran
- Tempat Pemonitoran
- No Pendaftaran Kilang

Pengenalan

- Objektif Khusus
- Tarikh Pemonitoran
- Kawasan Pemonitoran
- OYK & No Kelulusan
- Keterangan Proses
- Bilangan dan waktu syif bagi setiap spesifikasi kerja

Kaedah

- Peralatan digunakan
- Cara Pemilihan Pekerja
- Justifikasi jangka masa pemonitoran dan bilangan syif
- Cara Pemonitoran : diri , kawasan

Keputusan Pemonitoran Kawasan

Kawasan Kerja	Spesifikasi Kerja	Bilangan Pekerja	Jumlah Pekerja Di Monitor	Sumber Bising	Jenis Bising	Paras Bising

Keputusan Pemonitoran Diri

Nama	Kawasan Kerja	Spesifikasi Kerja	Jangkamasa Pemonitoran	Dose %	Leq	Max Level	Peak Level	Jenis Pendedahan

Perbincangan

- Keputusan noise mapping
- Keputusan yang melebihi *action level*, *PEL*, *max level* dan *peak level*
- Faktor mempengaruhi keputusan melebihi *action level*, *PEL*, *max level* dan *peak level*
- Bincang cara mengatasi bising (langkah kawalan sedia ada – jika ada)

Cadangan

- Pemonitoran positif
- Kaedah Pematuhan – cara kejuruteraan, cara pentadbiran, PPE, pematuhan peraturan, pemonitoran tambahan, cara-cara lain jika ada.

Kesimpulan

- Pernyataan sama ada objektif tercapai / tidak

Lampiran

- Carta Alir
- Pelan Lakar dan Pemetaan
- Borang Data dan Pengiraan
- Computer Print-out
- Salinan Sijil Calibration Peralatan & Calibrator (terkini)
- Salinan Sijil OYK
- Borang A – Pengesahan Majikan Bahawa Laporan Telah Dibentangkan

COMMON ISSUES



Personal Monitoring

- SETTING ALAT DOSE METER.
 - Criterion = 90 dB
 - Threshold = 80 dB
 - Exchange Rate = 5 dB
 - Time weighting = Slow
 - Frequency weighting = dB(A)
 - Peak weighting = lpk
 - Measurement Range = 70-140 dB

Area Monitoring

- SETTING ALAT (SLM).
 - Time weighting = Slow
 - Frequency weighting = dB(A)
 - Peak weighting = lpk
 - Measurement Range = 70-140 dB

Setting Betul

QUEST TECHNOLOGIES
Q300 NOISE LOGGING DOSIMETER

Unit Version Number: 02.6

Name Norshafiza

Serial Number: QC1030236

Work Area Speaker Sound Testing

Comments _____

Dosimeter Calibration: 114.0dB 13-NOV-14 @ 07:46:14

Calibrator: _____

Serial Number U 0110024

Measuring Parameters: (Range 70-140 Weighting A)

DOSIMETER 1		DOSIMETER 2		DOSIMETER 3	
Time Constant	SLOW	Time Constant	SLOW	Time Constant	SLOW
Exchange Rate	5dB	Exchange Rate	5dB	Exchange Rate	5dB
Threshold	80.0dB	Threshold	80.0dB	Threshold	80.0dB
Criterion	90.0dB	Criterion	90.0dB	Criterion	90.0dB
Upper Limit	115.0dB	Upper Limit	115.0dB	Upper Limit	115.0dB

Session Started 13-NOV-14 @ 08:25:33

Session Stopped 13-NOV-14 @ 16:20:42

Run Time 7:55:09 O.L. Occurred

DOSIMETER 1

Peak Level	150.8dB	13-NOV-14 @ 13:02:37
Slow Max Level	115.1dB	13-NOV-14 @ 13:50:38
Slow Min Level	69.9dB	13-NOV-14 @ 08:32:36

UL Time 0:00:00

LAVG 85.0dB

SEL(5) 159.0dB

TWA 85.0dB

DOSE - 49.67%

DOSE(8) 50.17%

EVENT(1)

Start

Setting Salah

CHAPTER 5

METHODOLOGY & INSTRUMENTATION

5.1 Equipment And Instrumentation

5.1.1 Equipment used to measure personal noise exposure (Additional Employee Exposure Monitoring) and area sound level (Area Exposure Noise Monitoring):

Type	NOISE LOGGING DOSIMETER
Model	QUEST NOISE-PRO DLX
Manufacturer	QUEST ELECTRONICS 510 WORTHINGTON STREET OCONOMOWOC, WI 53066, USA.
JKKP Approval No.	JKKP ND 44/06
Serial No.	NLK 070053, 070056, 070057
Meter Setting	• "A" WEIGHTING • (40-110 dB, 70-140 dB RANGE) • 115-143 dB UPPER LIMIT • FAST TIME CONSTANT <i>slow</i> • 90 dB CRITERION • 5 dB EXCHANGE RATE • 40-140 dB THRESHOLD <i>80</i>
Calibration Validity	11 August 2015, 25 September 2015

- Refer to **Figure 4** equipment photo.
- Refer to **Appendix A** for equipment calibration certificate

Pengiraan

- Pengiraan Jam Pemonitoran
- Pengiraan Projected Dose 8 jam/ 12 jam
- Pengiraan Leq
- Noise Reduction Rate (NRR)

Pengiraan Jam Pemonitoran

- $$\frac{(\text{Waktu pemonitoran} \times 60) + (\text{minit})}{60}$$

Waktu pemonitoran 7 jam 55 menit

$$= \frac{7 \times 60 + 55}{60}$$

$$= \underline{7.92 \text{ jam}}$$

Pengiraan Projected Dose 8 jam/ 12 jam

- Dose Measurment X 8jam

Run time

DM = 49.67% , RT = 7.92jam

$$\begin{aligned} D_8 &= \frac{49.67 \times 8}{7.92} \\ &= \underline{50.1717 \%} \end{aligned}$$

Pengiraan Leq 8 jam

- $90 + 16.61 \log \frac{(D \text{ 8jam})}{12.5 \times (8\text{jam})}$

$$\begin{aligned} \text{Leq 8} &= 90 + 16.61 \log \frac{50.17}{100} \\ &= \underline{85.02} \end{aligned}$$

Noise Reduction Rate (NRR)

- Ear Plug / Ear Muff

$$\frac{\text{NRR (EP)} - 7}{2}$$

$$\begin{aligned}\text{NRR} &= \frac{30 - 7}{2} \\ &= \underline{11.5}\end{aligned}$$

Isu – Isu Pelaporan Noise

- Tidak mengikut format yang ditetapkan.
- Hanya buat area monitoring.
- Typo error yang agak kritikal.
- Salah menilai pendedahan bunyi bising terhadap pekerja
- Salah pengiraan L_{eq}
- Masa pemantauan yang sangat pendek untuk pendedahan Fluctuate.

- 
- Tidak membuat pemantauan pada kawasan yang paras bunyi bisingnya tinggi.
 - Bukan OYK sendiri yang buat pemantauan
 - Tidak pause alat ketika waktu rehat, jika tiada pendedahan ketika rehat.
 - Penipuan terhadap sijil tentukur
 - Cadangan kejuruteraan/ Pentadbiran/ PPE dan lain-lain terlampau umum.

ENGINEERING CONTROL

CONTROL AT SOURCE

This control is most effective and involves redesigning and alteration of the machinery.

To select quiet equipment or to modify existing ones.

To reduce impact or impulsive forces by cushioning the impact or fall.

Reduce frictional resistance.

Isolate vibrating parts in a machine.

Apply vibration damping materials (dampers).

Vibrating parts should be replaced, tightened or isolated within the machine.

Air pressure guns should be used with regulators so as to regulate the pressure.

Worn out valves in air pressure guns should be replaced as often as possible.

TAMAT

