

CADANGAN PINDAAN DRAF:

**PERATURAN KESELAMATAN DAN KESIHATAN
PEKERJAAN (PENGUNAAN DAN STANDARD
PENDEDAHAN BAHAN KIMIA BERBAHAYA KEPADA
KESIHATAN) 202X**

***OCCUPATIONAL SAFETY AND HEALTH (USE AND
STANDARD OF EXPOSURE OF CHEMICALS
HAZARDOUS TO HEALTH) 202X***



**Bahagian Dasar Antarabangsa
dan Pembangunan Penyelidikan
JKKP Malaysia**

**SERANTA AWAM
ATAS TALIAN**

***ONLINE PUBLIC
ENGAGEMENT***

Background of USECHH Regulations

1. Come into operation on 4th April 2000.
2. Purpose of the Regulations:
 - To provide a legal framework to control exposure of chemicals hazardous to health.
 - To set a standard of exposure of chemicals hazardous to health at the place of work.
 - To promote sound chemical management system at the place of work.
 - To prevent and reduce cases of occupational disease, occupational poisoning or adverse health effect due to exposure to chemical hazardous to health (CHTH).

Purpose Of Amendment

- To review Permissible Exposure Limit (PEL) listed in Schedule I
- To review chemicals listed in Schedule II (Medical surveillance)
- In line with update information and latest development of current needs and technologies
- To tackle issues on overlapping/inconsistency of USECHH regulations and related regulations under Factories and Machinery Act 1967-
 - Lead
 - Asbestos
 - Mineral dusts

Scope of Application

Apply to all places of work within jurisdiction of OSHA 1994 where chemicals hazardous to health (CHTH) are used except chemicals which are —

- a) radioactive materials;
- b) foodstuffs;
- c) hazardous to health solely by virtue of their explosive or flammable properties, or solely because they are at a high or low temperature or a high pressure; or
- d) dispensed medicine.

Interpretation

chemicals hazardous to health –

any chemicals or preparation which—

- a) listed in Schedule I, or II or III;
- b) classified in any hazard class specified under Health Hazards of First Schedule of the CLASS Regulations 2013;
- c) comes within the definition of “pesticide” under the Pesticides Act 1974 ; or
- d) listed in the First Schedule of the Environmental Quality (Scheduled Wastes) Regulations 1989 or as amended;

Interpretation

dispensed medicine - a medicine supplied by:

- a) a registered medical practitioner for the purpose of medical treatment;
- b) registered dentist for the purpose of dental treatment;
- c) veterinary surgeon for the purpose of animal treatment; or
- d) a particular individual by a licensed pharmacist on the premises specified in his licence;

or substance prescribed by traditional and complementary medical practitioner.

use in relation to a chemical hazardous to health means production, processing, handling, storage, transport, removal, disposal or treatment.

Interpretation

chemicals –

- (a) a substance which a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition; and
 - (b) a chemical mixture which is a mixture or solution composed of two or more substances which do not react;
- for use at a place of work, including an alloy.

foodstuff - every article manufactured, sold or represented for use as food or drink for human consumption but does not include chemicals used in the composition, preparation, preservation of any food or drink.

occupational health doctor - a registered medical practitioner with a valid Annual Practising Certificate under Medical Act 1971 and registered with the DG to conduct medical surveillance programmes of employees.

Interpretation

short term exposure limit (STEL) - a fifteen-minutes time-weighted average airborne concentration limit as specified in Schedule I.

maximum exposure limit (MEL) - a fifteen-minute time weighted average airborne concentration limit which is three times the eight-hour time-weighted average limit specified in Schedule I.

time-weighted average limit - an average airborne concentration that shall not be exceeded over a specified period of time.

permissible exposure limit - a ceiling limit, an eight-hour time-weighted average limit, the maximum exposure limit or the short term exposure limit.

ceiling limit - the airborne concentration that shall not be exceeded during any part of the working day as specified in Schedule I.

Interpretation

validated method - any monitoring and analysis method evaluated by Department of Standard Malaysia or any internationally recognized body excluding non-standard method.

chemical risk assessor - an employee or any other person appointed by the employer and registered with the DG to carry out assessments of risks to health.

generic assessment - a full assessment conducted at the representative location which may be applied to all other locations in which the work activities are similar, with comparable level of risk or similar control measures.

full assessment - a chemical health risk assessment conducted in the manner as determined by DG;

simple assessment - simple method of assessing the risk of exposure to chemical hazardous to health in the manner as determined by DG.

Interpretation

simple assessment trained person - an employee or any other person appointed by the employer and have adequate knowledge and skill to identify, assess and control risk associated with the use of chemicals hazardous to health.

medical surveillance - systematic and periodic assessment of the state of health of an employee, as related to exposure to chemical hazardous to health, which may include biological monitoring or biological effect monitoring.

identifiable disease - any identified deviation from or interruption of the normal structure or function of any part, organ, or system or combination thereof of the body that is manifested by a characteristic set of symptoms and signs and whose etiology, pathology and prognosis may be known or unknown.

medical removal protection - temporary or permanently removal of the affected employee from a work area in preventing him or her from further exposure to chemical hazardous to health.

Interpretation

sand blasting - the cleaning, smoothing, roughening, cutting, preparation or removal of the surface or part of the surface of any building, ship or article by the use of sand or other substances containing sand or other substance containing crystalline silica propelled by a blast of compressed air or steam or by a wheel or by any similar means;

asbestos process - a work activity involving the use, application, removing, mixing or other handling of asbestos or asbestos containing materials;

crystalline silica - a crystalline form of free silica which include quartz, cristobalite, tridymite and tripoli;

hygiene technologist - an employee or any other person appointed by the employer and registered with the Director General to carry out any inspection, examination or test on engineering control equipment installed in a place of work or to carry out chemical exposure monitoring

New Part: Competent Person

Chemical risk assessor, OHD and hygiene technologist shall be registered with DG in the prescribed manner.

Duties as below:

Chemical risk assessor	OHD	HT
to carry out assessment of risk to health	to conduct medical surveillance (MS)	to conduct exposure monitoring or to conduct inspection, examination and testing of LEV or any engineering control equipment
to furnish and present report to the employer within one month upon completion of assessment		
to immediately inform the employer about the danger	to notify employer within one working days after the employee has detected a medical condition	
	to conduct return to work examination after MRP	
	to notify any cases of occupational poisoning and diseases	
	to submit report of MS & MRP	

MS: Medical Surveillance
MRP: Medical Removal Protection

Chemical Register

Information required in the register :

- a) a list of all CHTH processed, produced, or stored;
- b) the current SDS for each of the chemicals hazardous;
- c) the average quantity processed, produced or stored per month or per year whichever is applicable for each of the chemicals hazardous to health;
- d) the process and work area where the chemicals hazardous to health are processed, produced or stored;
- e) physical form of the chemicals hazardous to health processed, produced or stored;
- f) hazard classification of the chemicals hazardous to health processed, produced or stored; and
- g) the name and address of the supplier of each of the chemicals hazardous to health.

Chemical Register (New Clause)

- All information in the register except paragraph (b) and (d) shall be submitted in the manner as may be determined by the Director General.
- The requirement of submission shall not include hazard classification skin corrosion or irritation category 2 and skin sensitisation category 1.
- The information shall be submitted –
 - (a) after 6 months the regulations come into force; and
 - (b) for each calendar year not later than 31st January of the following year.

Justifikasi: Resolusi Kabinet Menteri berdasarkan Kajian Loading Capacity Sg. Kim Kim. Data ini akan digunakan untuk pembangunan pangkalan data bahan kimia kebangsaan dan pemetaan risiko bahan kimia bagi Jabatan.

Permissible Exposure Limit

Employer need to ensure exposure of any person to CHTH is:

- a) below ceiling limit at any time;
- b) below TWA 8hr limit;
- c) For short term exposure, exposure shall below MEL or STEL (where applicable).

Notes: For TWA 8hr limit, employer also needs to ensure that the exposure of any person is below MEL.

New Clause: Extended Working Hours

- Exposure/work shift longer than 8 hrs
- Adjusting the eight-hour time weighted average limit using the following formula:

$$\text{Adjusted exposure limit} = 8\text{hr TWA} \times \left\{ \frac{8}{h} \times \left(\frac{24-h}{16} \right) \right\}$$

where, h is hours worked per day

- Adjustment apply to chemicals marked with number two(2) in "Indication" column in Schedule I .
- May use other methods that adopt recognised scientific principles.

Assessment of Risk to Health (Full & Simple)

Assessment of Risk to Health categorised into 2:

- a. Full assessment (CHRA)
 - i. Employer may conduct generic assessment if CHTH is used in the same way in several place of work & control measures are similar.
 - Need DG approval
 - DG may revoke approval if any changes in usage of CHTH, work activity involved or control measured implemented.
 - ii. Carried out by chemical risk assessor.
- b. Simple assessment
 - i. Not applicable to chemicals classified as:
 - Carcinogenicity category 1; or
 - Mutagenicity category 1; or
 - Respiratory sensitizer category 1.
 - ii. Employer may appoint trained person.

Assessment of Risk to Health (Reassessment)

Reassessment (for Full & Simple) need to be carried out if :

- (a) significant change in the work that could affect the outcome of the assessment;
- (b) new or improved control measures are implemented;
- ~~(c) more than five years have elapsed since the last assessment~~; or (propose to delete)
- (d) directed by the Director General, Deputy Director General or the Director of Occupational Safety and Health.

Control Measures (New Clause)

Where it is not practicable to prevent exposure to chemicals hazardous to health, the employer shall control the exposure by applying control measures appropriate to the work activity and consistent with the health risk assessment, including, in order of priority –

- (a) the design and use of appropriate work processes, systems and engineering controls and the provision and use of suitable work equipment and materials;
- (b) the control of exposure at source, including adequate ventilation systems and appropriate organisational controls; and
- (c) where adequate control of exposure cannot be achieved by other means, the provision of suitable personal protective equipment in addition to the measures required by paragraphs (a) and (b).

Control Measures (New Clause)

The control shall include –

- (a) arrangements for the safe handling, storage and transport of chemicals hazardous to health, and of waste containing such chemicals, at the place of work;
- (b) the adoption of suitable maintenance procedures;
- (c) reducing, to the minimum required for the work concerned –
 - (i) the number of employees subject to exposure;
 - (ii) the level and duration of exposure; and
 - (iii) the quantity of chemicals hazardous to health present at the place of work;
- (d) the control of the working environment, including appropriate general ventilation; and
- (e) appropriate hygiene facilities and practices including adequate washing facilities

Control Measures for Carcinogenicity Cat. 1 Chemicals (New Clause)

Apply the following measures where it is not practicable to prevent exposure to carcinogenicity category 1 chemicals —

- (a) the design and use of appropriate work processes, systems and engineering controls and provision and use of suitable work equipment and materials;
- (b) the control of exposure at source including adequate ventilation systems and appropriate organisational controls;
- (c) totally enclosing the process and handling systems, unless this is not reasonably practicable;
- (d) where adequate control of exposure cannot be achieved by other means, the provision of suitable approved personal protective equipment in addition to the measures required by paragraph (a), (b) and (c);
- (e) cleaning floors, walls and other surfaces at regular interval;
- (f) designating those areas and installation which may be contaminated by carcinogens and using suitable and sufficient warning signs;
- (g) storing, handling and disposing of carcinogens safely, including using closed and clearly label containers; and
- (h) the prohibition of eating, drinking and smoking in areas that may be contaminated by carcinogens.

Use of Approved PPE

- ▶ Employer shall establish PPE programme which include procedures on-
 - selection and issuance
 - information, instruction and training
 - inspection
 - storage and maintenance
 - disposal
- ▶ PPE programme to be documented and maintained for at least 2 years.

Engineering Control Equipment

- Employer to ensure that the engineering control equipment is maintained in-
 - an efficient state
 - efficient working order
 - good repair
 - clean condition

Every engineering control equipment shall be operated at all times while CHTH is used.

Design, Construction and Commissioning of Local Exhaust Ventilation Equipment

LEV shall be–

- a) designed or design verified by professional engineer according to design specification;
- b) constructed according to the design specification; and
- c) commissioned by a registered professional engineer

Records of Engineering Control Equipment

- Records of inspection, testing, examination and maintenance of engineering control equipment shall be maintained at least 5 years.
- Records of design, construction and commissioning of LEV shall be maintained and be produced for inspection.

Duty of Employer to Ensure Labelling

Employer may use alternative practicable means of labelling to communicate the information when the:

- a) chemical received is not in packaging;
- b) chemical manufactured or imported is for own consumption; or
- c) chemical in transit prior to export.

Relabelling

- Relabel the container with the chemical name or trade name or product identifier as written on the original label if the contents -
 - Used within a work shift; or
 - Used in a testing chemical laboratory; or
 - Contained in a container is 125 ml or below
- May use pictogram with black border if the CHTH use within his place of work

Information, Instruction And Training

- Include information on any adverse effect to reproductive system or foetus or breastfeeding child.
- Provide information on:
 - results of any monitoring of exposure
 - collective result of medical surveillance
 - medical removal and return to former job
- Provide information to the respective employee within 1 month after receipt of such information.

Hazard Information (New Clause)

Employer may use the chemical for scientific research and development or trial purposes which –

- (a) are not placed on the market;
- (b) does not exceed a capacity of five kilogrammes; and
- (c) adequate information on the safe use of the chemical is provided.

Monitoring Of Airborne Chemicals

- Employer shall carry out a monitoring of exposure of employees to CHTH where an assessment indicates –
 - it is requisite for ensuring the maintenance of adequate control of the exposure;
 - it is otherwise requisite for protecting the health of employees; or
 - directed by the DG, Deputy DG or Director of Occupational Safety and Health.
- To conduct monitoring within 6 months after receiving assessment report.
- The monitoring of exposure shall be carried out with a validated method of monitoring and analysis .

Frequency Of Monitoring

- Monitoring shall be repeated at the following intervals:
 - Not more than six months for exposure at or above the permissible exposure limit; or
 - Not more than twelve months for exposure at or above action level but below the 8 hour TWA limit.

Note: Action level - half of the value of the 8 hour TWA limit

- The monitoring of exposure may be discontinued if the exposure is below (where applicable) –

- a) action level;
- b) STEL; and
- c) ceiling limit

by taking at least two consecutive measurement, taken at least seven days apart.

- If result of monitoring exceed PEL, employer shall review their action to control exposure.

Medical Surveillance Programme

- Health surveillance is replaced with medical surveillance.
- Employer to carry out medical surveillance programme where assessment indicate it is necessary or it is appropriate for protection of the health of employees exposed to CHTH.
- Whether “It is Necessary” or it is appropriate conditions?
 - the employee is exposed to chemicals specified in Schedule II and there is a likelihood that an identifiable disease will result from that exposure; or
 - the exposure of the employee to a CHTH is such that -
 - an identifiable disease may be related to the exposure, or
 - there is a likelihood that the identifiable disease may occur under any particular conditions of his work; and
 - there are valid techniques for detecting indications of the identifiable disease.

Medical Surveillance (MS) Programme

- MS shall be conducted—
 - a) by an OHD; and
 - b) at intervals of not more than twelve months or at such shorter intervals as determined by the OHD or an occupational safety and health officer who is also a medical practitioner.
- MS must be continued after the exposure to that chemical has ceased,
 - while the employee is employed by the employer,
 - unless it has been cancelled by the OHD or an occupational safety and health officer who is also a medical practitioner.
- Employer shall review actions to control exposure if as a result of medical surveillance,
 - an employee is found to have an identifiable disease or adverse health effect,
 - which is considered by an OHD to be the result of exposure to a CHTH.

Medical Removal Protection (MRP)

- ❑ Remove immediately -
 - the employee has a detected medical condition which places him at increased risk of material impairment to health from exposure to CHTH.
 - Return to work when:
 - a subsequent medical determination results in a medical finding, determination or opinion by the OHD which shows that the employee no longer has the detected medical condition; and
 - the exposure is no longer exist.

- ❑ Remove immediately after being notified by –
 - a pregnant employee;
 - breastfeeding employee; or
 - or an occupational safety and health officer who is also a medical practitioner or an occupational health doctor

which may expose or is likely to expose to CHTH that can adversely affect the foetus or breastfeeding child.

- ❑ In both situation, the employee shall be informed of the reason of his or her removal and is required to adhere to the instruction given.

Arrangements to Deal with Accidents, Incidents & Emergencies (New Clause)

Ensure that—

- procedures, including the provision of appropriate first-aid facilities, have been prepared;
- information on emergency arrangements; and
- suitable warning and other communication systems are established.

In the event of an accident, incident or emergency related to the presence of CHTH at the workplace, the employer shall ensure that—

- immediate steps taken to
 - mitigate the effects
 - restore the situation to normal; and
 - inform employees who may be affected;
- and only those persons who are essential for the carrying out of repairs and other necessary work are permitted in the affected area.

Immediate access to the emergency showers, eye wash equipment or other appropriate equipment if chemicals harmful to the eyes or skin are used.

Eating and Drinking Facilities and Practices (New Clause)

- ▶ Ensure employees do not eat, drink or smoke in any place of work where CHTH are used.
- ▶ Eating and drinking facilities are isolated from place of work where CHTH are used but such facilities shall be readily accessible to employees.
- ▶ Ensure employees do not enter eating and drinking facilities wearing any clothing or personal protective equipment worn during the work shift unless CHTH has been removed.

Hygiene Facilities and Practices (New Clause)

For employees which exposed to chemicals listed in Schedule III –

- Employer shall provide:
 - adequate changing rooms;
 - lockers;
 - washing; and
 - shower facilities.
- Employer shall ensure that employees do not leave the place of work wearing any clothing or PPE worn during the work shift.
- The clothing worn during the work shift shall be cleaned at the place of work.
- Where the clothing is sent to outside laundry, the employer shall inform in writing the laundry of the adverse health effects due to exposure to chemicals.

Approval and Notification (New Clause)

- Asbestos process shall not be conducted except prior approval of the DG.
- Where the asbestos process was commenced before the coming into operation of these Regulations, the employer shall obtain approval within one year from the date of coming into operation of these Regulations.
- Employer shall notify DG in writing two weeks before starting any work involving sand blasting or any work involving any other CHTH as prescribed by DG.

Amended Scheduled

- Scheduled I
 - List of permissible exposure limits
 - Consist of 562 chemicals
 - Full or Partial validated analysis method
 - Consist of 8hrs TWA limit, Ceiling Limit & STEL
 - Notation for skin, extended working hours & carcinogen

Amended Scheduled

- Scheduled II
 - 27 chemicals

Chemicals hazardous to health for which medical surveillance is necessary or appropriate

Asbestos	Auramine	Benzene
Carbon disulphide	Carbon tetrachloride	Dianisidine
Dichlorobenzidine	Disulphur dichloride	Chromium hexavalent compound
Lead (elemental and inorganic lead)	Mercury	Nitrobenzene
Aniline	Toluene	Xylene
n-hexane	Organophosphate	Orthotholidine
Pitch	Potassium chromate	Potassium dichromate
Sodium chromate	Sodium dichromate	Silica(crystalline)
Trichloroethylene	Vinyl chloride monomer	Cadmium

Amended Scheduled

- Scheduled III
 - 5 chemicals

Chemicals hazardous to health which require hygiene facilities and practices.

Asbestos

Lead (elemental and inorganic compounds)

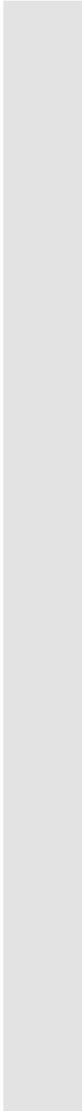
Mercury

Pesticides as defined under the Pesticides Act 1974 [Act 149] except Class IV

Silica (crystalline)

Penalty

Duty holder	Penalty	Compound
Employer	Max fine RM 10,000, and/or imprisonment not exceeding 1 year.	Max RM 2,000.
Employee	Max fine RM 1,000.	-



Thank You