SYDNEY TRAINS SAFETY MANAGEMENT SYSTEM

OPERATING PROCEDURE 16: MANAGE HEALTH MONITORING REQUIREMENTS

Purpose

This procedure outlines the process for managing health monitoring in the workplace to:

- identify workers who have sustained exposures to occupational health hazards;
- provide clinical assessments;
- provide coordinated referral for follow-up clinical care for affected workers;
- educate workers about their exposures and associated health risks; and
- establish a baseline clinical status for comparison with future clinical assessments.

Scope

This procedure is applicable to workers, job applicants and contractors who have been exposed or potentially exposed to occupational health hazards.

Note

Contract and Procurement Managers must make sure that safety specifications within contracts have provision for addressing health surveillance requirements.

Process flow

Process

16.3 Manage health monitoring requirements
16.3.1 Identify occupational health hazards
16.3.2 Identify health monitoring needs
16.3.3 Implement health monitoring
16.3.4 Establish medical examination protocols
16.3.5 Review health monitoring data and profiles

Figure 1 Process flow for manage health monitoring requirements

Document tendered by
Mr Steffen Faurby
Received by
Brett Rodgers
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Procedure

16.3: Manage health monitoring requirements

This procedure outlines the process for:

- identifying and managing occupational health hazards;
- identification of health monitoring needs;
- baseline and precautionary screening;
- methods of entry into the health monitoring program; and
- safety action required for adverse outcomes.

Health monitoring is surveillance or monitoring of the health of workers who may be exposed to health hazards in the workplace, e.g. dust, noise or hazardous chemicals.

Work-related diseases are best prevented by the control of exposure to occupational health hazards in the workplace. Sometimes this needs to be supplemented by monitoring of those potentially exposed to particular workplace agents (e.g. lead risk work and asbestos removal).

The benefits of health monitoring programs include:

- providing information to detect harmful health effects at an early stage;
- checking that control measures are working;
- providing data by means of the health information associated with the detection and evaluation of health risks; and
- providing an opportunity to train and instruct workers in safe and healthy working practices.

16.3.1: Identify occupational health hazards

Health monitoring requires the systematic identification of occupational health hazards and workers exposed to those hazards.

Line Managers will perform the following procedure.

Procedure

1. Identify occupational health hazards including:
   - biological agents, such as viruses, bacteria, parasites, zoonoses, fungi, moulds and organic dusts;
   - physical factors, such as noise, vibration, ionising and non-ionising radiation; and
   - chemical hazards, such as hazardous substances and materials.
2. Follow the requirements of SMS-06-SP-3026 WHS Risk Management to identify occupational health hazards.

16.3.2: Identify health monitoring needs	Health monitoring of workers aims to detect early signs of work-related illness or disease before a person would normally seek medical care. Health screening may be required when: • there are previous cases of work-related ill health in a workplace; • PPE is used (e.g. gloves or respirators), because there is no guarantee that PPE will be effective at all times; and • there is evidence of ill health in comparable jobs found in industry. Workers can enter the health monitoring program when a certified Occupational Hygienist determines an exposure or suspected exposure. Health monitoring provides Line Managers with information to help protect workers from health risk caused from occupational exposures at work. A certified Occupational Hygienist completes the following procedure in consultation with Line Managers and workers. **Procedure** 1. Develop a Health Hazard Exposure Profile using SMS-08-TP-4069 to identify occupation-based health screening and monitoring requirements (refer to Appendix B and C); 2. Undertake formal reviews of the Health Hazard Exposure Profile at a minimum of every five years, or as requested (refer to the procedure below for precautionary screening); 3. Provide occupation-based requirements for health screening and monitoring to the Manager, Human Resources Services Centre (HRSC) using the Health Screening Request Form in FP; and 4. Assess worker's baseline health and biological loading before workers undertake high exposure risk work, where the Health Hazard Exposure Profile identifies health screening for specific work. **Health Screening and monitoring processes** There are four types of health screening and monitoring processes: • Precautionary occupation-based screening for exposures to occupational health hazards identifies early signs of ill health and reviews the effectiveness of existing controls; • Exposure incidents include acoustic shock injury arising from a very loud noise in the workplace, noise induced hearing loss due to exposure to excessive occupational noise or workers being overcome by vapours whilst using a hazardous substance. Please refer to SMS-06-OP-3038 Manage Risks with Noise for further information. The need for health screening must be determined as part of investigation of exposure incidents through consultation with the Senior Safety Specialist WHS; • Health screening for historic asbestos exposures are conducted for current workers involved in asbestos process work through Sydney Trains previous entities to screen for adverse effects of asbestos exposures;

16.3.2: (continued)

Pre-employment screening medicals are designed to determine if potential employees have a pre-existing condition that predisposes them to further adverse health effects from particular work activity or use of a particular substance; and to establish future employees' baseline health and biological monitoring before high exposure risk work is undertaken that will provide a level against which future exposure can be compared.

Line Managers perform the following procedure.

Procedure – Pre-cautionary screening

1. Request a formal review of the Health Hazard Exposure Profile by a certified Occupational Hygienist when:
   - there is a significant change in an occupation's work practices;
   - following an occupational health hazard related incident;
   - following review outcomes from occupational hygiene surveys (e.g. noise or dust monitoring); and
   - following an adverse finding from health monitoring as notified by the Occupational Physician.
2. In consultation with workers, in addition to point 1 above, must identify site-specific requirements for precautionary health screening for occupational health hazards:
   - for specified hazardous chemicals (refer Appendix B) and/or
   - following a hazardous substance risk assessment or hazardous materials survey (see SMS-06-SP-3026 WHS Risk Management); and
   - following occupational hygiene survey outcomes (e.g. noise or dust monitoring) where health screening is recommended.
3. Arrange health screening by completing a Health Screening Request Form in FP.

Procedure – Exposure incidents

1. Where the need for exposure screening is identified, the Line Manager must arrange for screening by completing a Health Screen Request Form in FP and
2. The HRSC to schedule an appointment for the affected worker.

Procedure – Health screening for historic asbestos exposures

1. Workers must complete a SMS-16-FM-4113 Asbestos Process Work Notification and submit to their Line Manager;
2. The Line Manager must arrange for screening by completing the Health Screening Request Form in FP; and
3. The HRSC to schedule an appointment for the affected worker.

16.3.3: Implement health monitoring	Line Managers to perform the following procedures, unless stated otherwise. **Procedure** 1. Provide information regarding health monitoring requirements to affected workers; 2. Arrange health screening by completing a Health Screening Request Form in FP for occupational-based precautionary screenings; 3. Report exposure incidents in accordance with SMS-17-OP-3102 Notify Safety Incidents. During suspected health hazard exposures, follow SMS-17-OP-3101 Investigate, Report on and Analyse Safety Incidents – this includes initiating a Level 5 Incident Investigation; 4. The Director Safety and Standards must identify serious exposure incidents and request a Level 4 Incident Investigation to be completed by SER Investigators as required. 5. Schedule initial screening appointments for historic asbestos exposure, to coincide with Rail Safety Worker health assessments where possible. Where timeframes are not appropriate, separate medical assessment will be requested.

Note

Workers who previously notified Health Services of potential asbestos exposures will continue to be monitored in the health surveillance program as required.

6. Directors must incorporate the health surveillance requirements into the position descriptions of new recruits in order to complete baseline health screening assessments.
7. Directors, in consultation with the Director HR Service Delivery in Transport Shared Services (TSS), must schedule occupation-based screening and surveillance appointments for all potential employees by the nominated approved health provider.

16.3.4: Establish medical examination protocols

The following is completed by an Occupational Physician.

Procedure

1. Review completed divisional SMS-08-TP-4069 Health Hazard Exposure Profiles to establish agreed examination protocols consistent with the requirements of the WHS Regulation and relevant national Codes of Practice for prescribed occupational health screenings.

The following is completed by the Director Safety and Standards.

Procedure

1. Make sure the nominated Health Provider develops and implements work instructions which address the following:
   - reporting process for providing all medical recommendations and testing results to Sydney Trains and its workers;
   - notification to Sydney Trains of any ongoing screening or monitoring appointments;
   - notification process to the HR Service Centre and Line Manager for workers identified 'not fit for duty';
   - a database of employee medical health screening and monitoring histories compliant with the requirements of the NSW Health Records and Information Privacy Act 2002. The database should capture:
     - the name and date of the worker
     - the agent and type of work that has triggered the health monitoring
   - how long the employee has been carrying out the work;
   - reporting adverse individual health screening, including pre-employment screenings and monitoring program outcomes and information about any necessary preventative or remedial actions that may be required in the workplace directly to the Director Safety and Standards;
   - reporting of dust-related diseases as soon as practicable to the Dust Diseases Board; and
   - notification process to WorkCover for any adverse results detected in the health surveillance that is consistent with exposure to hazardous chemicals, or if any recommendations were made regarding exposure to hazardous chemicals, e.g. removal of worker from task. Chemicals listed in Appendix A are prohibited and restricted carcinogens and are prohibited from use unless approval has been sought and granted from SafeWork NSW.

16.3.4: (continued) The Director Safety and Standards is responsible for the following procedure.

Procedure

1. Approve the nominated Health Provider's work instructions and undertake annual compliance audits against the contract requirements;

   A certified Occupational Hygienist must establish exposure statements for required occupations via the development of occupational health hazard profiles.

   The following is completed by an Occupational Physician at the time a worker who has been exposed or likely to have been exposed to a substance named in Appendix A ceases employment at Sydney Trains.

2. Provide a written statement to a worker at the time they cease employment with Sydney Trains. The written statement must include:
   - the name of the substance or substances;
   - period of exposure;
   - how and where the records may be obtained; and
   - any details for periodic health tests relevant in the circumstances.

16.3.5: Review health surveillance data and profiles

Health Hazard Exposure Profiles may need to be reviewed when:

- a number of workers report work-related ill health in a workplace;
- an incident occurs; and
- there is evidence of ill health in comparable jobs found in industry.

A certified Occupational Hygienist undertakes the following procedure.

Procedure

1. Review the divisional Health Hazard Exposure Profiles and reported exposures causing work-related ill health;
2. Identify patterns and trends that indicate potential adverse health effects; and
3. Implement relevant action in accordance with SMS-18-SP-3078 Safety Action Management.

References

SMS-06-SP-3026 WHS Risk Management

SMS-08-TP-4069 Health Hazard Exposure Profile

SMS-17-OP-3102 Notify Safety Incidents

SMS-17-OP-3101 Investigate, Report on and Analyse Safety Incidents

SMS-16-FM-4113 Asbestos Process Work Notification

SMS-18-SP-3078 Safety Action Management

Version Control

Version	Change from previous	Date	Comment
1.0	First Release of Sydney Trains SMS	01/07/2013	Launch of Sydney Trains SMS documents
1.1	Custodian and Approver name changed. Hop logo added.	14/05/2014	
1.2	Updated: • the title of document custodian and approver • Appendix A and B against the SafeWork Australia requirements • Terminologies and other position titles in the document.	03/01/2018	

Appendix A Prohibited and Notifiable Carcinogenic Substances

Prohibited Carcinogenic Substance		Notifiable Carcinogenic Substance	
Substance	**Chemical Abstract Number (CAS)**	**Substance**	**Chemical Abstract Number (CAS)**
2-Acetylaminoflourene	53-96-3	Acrylonitrile	107-13-1
Aflatoxins		Benzene (when used as a feedstock with more than 50% of benzene by volume)	71-43-2
4-Aminodiphenyl	92-67-1	Cyclophosphamide (cytotoxic drug) when used in preparations for therapeutic use in hospitals and oncological treatment facilities and in manufacturing operations	50-18-0
Benzidine (and its salts)	92-87-5	3,3'-Dichlorobenzidine (and its salts)	91-94-1
Benzidine dihydrochloride	531-85-1	3,3'-Dichlorobenzidine	612-83-9
Bis (Chloromethyl) ether	542-88-1	Diethyl sulphate	64-67-5
Chloromethyl methyl ether (technical grade which contains bis (chloromethyl) ether)	107-30-2	Dimethyl sulphate	77-78-1
Chloromethyl methyl ether (technical grade which contains bis (chloromethyl) ether)	107-30-2	Ethylene dibromide (when used as afumigant)	106-93-4
4-Dimethylaminoazobenzene	60-11-7	4,4'-Methylene bis (2-chloroaniline) – MOCA	101-14-4
2-Naphthylamine (and its salts)	91-59-8	2-Propiolactone	57-57-8
4-Nitrodiphenyl	92-93-3	o- Toluidine	95-53-4
		o- Toluidine hydrochloride	636-21-5
		Vinyl chloride monomer	75-01-4

Source: National Model Regulations for the control of Scheduled Carcinogenic Substances [nohsc:1011(1995)]

Appendix B Hazardous chemicals requiring health monitoring

The information in this Appendix is taken from Schedule 14 of the WHS Regulations and Regulation 436 (asbestos).

	Hazardous chemical	Type of health monitoring
1	Acrylonitrile	Demographic, medical and occupational history Records of personal exposure Physical Examination
2	Arsenic (inorganic)	Demographic, medical and occupational history Records of personal exposure Physical examination with emphasis on the peripheral nervous system and skin Urinary inorganic arsenic
3	Asbestos	Demographic, medical and occupational history Records of personal exposure Physical Examination
4	Benzene	Demographic, medical and occupational history Records of personal exposure Physical Examination Baseline blood sample for haematological profile
5	Cadmium	Demographic, medical and occupational history Records of personal exposure Physical examination with emphasis on the respiratory system Standard respiratory questionnaire should be completed. Standard respiratory function tests including, e.g. FEV1, FVC and FEV1/FVC Urinary cadmium and β_2-microglobulin
6	Chromium (inorganic)	Demographic, medical and occupational history Physical examination with emphasis on the respiratory system and skin Weekly skin inspection of hands and forearms by a competent person
7	Creosote	Demographic, medical and occupational history Health advice, including recognition of photosensitivity and skin changes Physical examination with emphasis on the neurological system and skin, noting any abnormal lesions and evidence of skin sensitisation Record of personal exposure including photosensitivity
8	Crystalline silica	Demographic, medical and occupational history Records of personal exposure Completion of a standardised respiratory questionnaire Standard respiratory function test, including, FEV1, FVC and FEV1/FVC Chest X-ray, full size PA view
9	Isocyanate	Demographic, medical and occupational history

	Hazardous chemical	Type of health monitoring
		Completion of a standardised respiratory questionnaire Physical examination of the respiratory system and skin Standardised respiratory function tests including FEV1, FVC and FEV1/FVC
10	Lead (inorganic)	Demographic, medical and occupational history Physical examination Biological monitoring
11	Mercury (inorganic)	Demographic, medical and occupational history Physical examination with emphasis on the dermatological, gastrointestinal, neurological and renal systems Urine inorganic mercury
12	4,4-Methylenebis (2-chloroaniline) (MOCA)	Demographic, medical and occupational history Physical examination Urinary total MOCA Dipstick analysis of urine for haematuria Urine cytology
13	Organophosphate pesticides	Demographic, medical and occupational history including pattern of use Physical examination Baseline examination of red cell and plasma cholinesterase activity levels by the Ellman or equivalent method Estimation of red cell and plasma cholinesterase activity towards the end of the working day on which organophosphate pesticides have been used
14	Penthachlorophenol (PCP)	Demographic, medical and occupational history Records of personal exposure Physical examination with emphasis on the skin, noting any abnormal lesions or effects of irritancy Urinary total pentachlorophenonol Dipstick urinalysis for haematuria and proteinuria Records of personal exposure
15	Polycyclic aromatic hydrocarbons	Demographic, medical and occupational history Physical examination Records of personal exposure, including photosensitivity Health advice, including recognition of photosensitivity and skin changes
16	Thallium	Demographic, medical and occupational history Physical examination Urinary tallium
17	Vinyl Chloride	Demographic, medical and occupational history Physical examination Record of personal exposure

Source: SafeWork Australia, Health monitoring for exposure to Hazardous Chemicals Guide for Persons Conducting a Business or Undertaking; February 2013

Appendix C Regulatory requirements

Health monitoring is a statutory requirement under the WHS Regulation for workers exposed to some well-established occupational health risks, such as prescribed hazardous chemicals. Sydney Trains has statutory responsibilities to comply with the following regulations and standards.

WHS Legislation, Standards and Guidelines	Requirement
WHS Regulation NSW 2017	Provision of health monitoring Results of health monitoring Records of health monitoring Health monitoring for lead processes and lead risk work Requirements for and type of health monitoring
SafeWork Australia NOHSC:7039-Guidelines for health surveillance (1995)	Planning and implementing health surveillance programs Minimum requirements for health surveillance Guidelines for health surveillance
SafeWork NSW Code of Practice (CoP) – Managing Noise and Preventing hearing loss at work (Section 274 of the Work Health and Safety Act 2017)	Managing exposure to noise at work Provides guidance for employers and employees to enable compliance with legislation Provides guidance on control measures Audiometric testing requirements
Radiation Control Regulation 2013 (Made under the radiation control Act 1990) 1St July 2013	Duty to comply with dose limits Duty to inform occupationally exposed persons Personal monitoring devices Personal radiation exposure record
Health and Safety (Mines and Petroleum Sites) Regulation 2014 (Made under the Work Health and Safety(Mines and Petroleum Sites) Act 2013	Provision of health monitoring Records of health monitoring Records to be provided to employee Records to be made available
SafeWork Australia Guide on Exposure to Solar Ultra Violet Radiation (UVR) August 2013	provides practical guidance for persons conducting a business or undertaking and workers about managing health and safety risks associated with exposure to solar ultraviolet radiation (UVR). information on the risks of solar UVR exposure, the control measures which can be used to help eliminate or minimise, so far as is reasonably practicable, a worker's exposure to solar UVR in the workplace guidance on how to implement a sun protection program at the workplace.