

HEALTH SURVEILLANCE FOR THE WASTE AND RECYCLING INDUSTRY

This guidance has been developed by the Waste Industry Health and Safety (WISH) Forum to help control safety and health risks in the waste management industry associated with occupational health issues. The Health and Safety Executive (HSE) were consulted in the production of this publication. It endorses the sensible, proportionate, reasonable, and balanced advice on managing risk during waste-related activities as set out in the guidance.

This guidance is aimed as an introduction to health surveillance and as such has been written for operators, site managers, supervisors, and anyone else who wishes to improve their knowledge of the issue. The guidance is relevant to all sectors and sub-sectors of the waste and recycling industry.

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1. Introduction and background

Each year, significant numbers of workers are made ill by their work. These cases impose 'human costs' (in terms of the impact on the individual's quality of life), as well as the 'financial' costs, such as loss of production due to absence from work, and healthcare costs. The total economic cost of workplace injuries and ill health includes both the financial costs incurred and a valuation of the human costs.

Around 13,000 deaths each year from occupational lung disease and cancer are estimated to have been caused by past exposures at work, primarily to chemicals and dusts. In 2015/16 an estimated 1.3 million people were suffering from an illness they believed was caused or made worse by work, whilst it is also estimated that 25.9 million working days were lost due to self-reported work-related illness.

Workers employed in the waste and recycling sector undertake a diverse range of work tasks that expose them to hazards that have the potential to cause ill health and associated sickness absence. Between 2008/09 and 2015/16 around 6000 workers, (approximately 4.7%) employed in the waste sector were suffering from an illness they believe was caused or made worse by their work. It is estimated that an annual average of between 86,000 and 274,000 working days are lost due to work related illness in the waste and recycling sector. This equates annually to between 0.81 and 2.57 days off per worker.

Further statistics based on the Labour Force Survey relating to the waste and recycling sector can be found on the HSE website (<http://www.hse.gov.uk/statistics/industry/waste-recycling/index.htm>).

Note – for further reading and information please see WISH REF 05 (available from the WISH web site). This gives a list of key potential occupational health hazards, potential symptoms and links to further information and reading.

2. What is health surveillance?

Health surveillance is a system of on-going health checks. These health checks may be required by law for employees who are exposed to working in compressed air, noise or vibration, ionising radiation, solvents, fumes, dusts, biological agents, and other substances hazardous to health. Health surveillance allows for early identification of ill health and helps identify any corrective action needed.

Health surveillance is important for:

- Determining the suitability of new employees to the role
- Detecting ill-health effects at an early stage, so employers can introduce better controls to prevent them getting worse
- Providing data to help employers evaluate health risks
- Enabling employees to raise concerns about how work affects their health
- Highlighting lapses in workplace control measures, therefore providing invaluable feedback to the risk assessment
- Providing an opportunity to reinforce training and education of employees (e.g. on the impact of health effects and the importance of risk controls and the use of protective equipment)
- The identification of underlying medical conditions unrelated to the workplace
- Providing an opportunity to advise on the impact of lifestyle decisions on health and wellbeing

The nature and extent of the surveillance required will be dependent on the findings of an assessment of the risks for activities conducted by staff. Surveillance may take the form of:

- Questionnaires – pre-employment, and during employment
- Tests - such as lung function (spirometry) or hearing-tests
- Clinical examinations
- Samples - such as blood and urine samples
- Specific assessment prescribed by legislation, such as for asbestos, radiation, and lead

This guidance covers the physical health of those employed in the industry. Workers may also require support for mental health issues which are not covered in this document.

3. Why have an occupational health and surveillance programme?

Occupational health should bring added value to a business, both direct and indirect:

- Overall reduction of absence costs
- Reduction of the claims against health insurance, private medical insurance, employer's liability insurance and pension funds
- Reduction of litigation risks associated with non-compliance of health and safety legislation
- Increased staff retention - saving time, money and effort recruiting, retaining, and training staff
- Improved productivity
- Overall increased profitability
- Recognition of Corporate Social Responsibilities

Potential health implications for workers in the waste and resource industry are diverse. For example, these could include, but are not limited to, the following diseases/conditions:

- Dermatitis
- Respiratory illness
- Occupationally related cancers
- Hearing impairment
- Infections (such as hepatitis, tetanus, and zoonosis)
- Gastrointestinal illnesses
- Stress and stress related conditions
- Musculoskeletal disorders
- Effects of hand, arm, and whole-body vibration
- Reactions to exposure to the sun, heat, and cold
- Poisoning
- Effects of exposure to lead, and other heavy metals and toxic materials

Table 1 on the next page contains examples of possible symptoms that individuals may display as a result of exposure to occupational health hazards.

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Table 1 – Possible outcomes resulting from exposure to occupational hazards

Occupational Hazard	Possible Outcomes
Alcohol/drug abuse	Various habits and impact on fitness for work, loss of concentration, short term illness etc
Asbestos	Cancer, asbestosis, mesothelioma
Animals e.g. rats	Leptospirosis, Zoonoses (toxicara catii, toxicara canii, toxio plasmosis)
Bacteria	Gastro-intestinal infections; Food poisoning; Skin conditions; Other e.g. Legionnaires' Disease (Respiratory see: bioaerosols)
Bioaerosols	Asthma, Airways irritation, alveolitis, COPD, Reduced lung function
Dusts inc. silica dusts	Reduced lung function, airways inflammation and scarring, Silicosis, COPD, lung cancer
Ergonomic factors	Upper limb, neck, back, lower limb strain and injury
Fatigue	Physical and psychological e.g. irritability, insomnia, loss of concentration etc
Fungi	Skin and nail infections (Respiratory see: bioaerosols)
Heavy metals	Effects on the brain, nervous system, skin and kidneys
Human waste products	Faecal-oral contamination leading to gastro-intestinal infections
Inorganic chemicals	Various conditions e.g. silicates could lead to respiratory issues, and skin contact from some chemicals may lead to localised irritation or allergic reactions
Insects	Lyme disease and other insect transmissible pathogens
Manual handling	Upper limb, neck, back, lower limb strain and injury
Noise	Noise induced hearing loss
Oils	Skin conditions; e.g. rashes, irritations, lesions, also carcinomas
Organic chemicals	Respiratory sensitisation; skin sensitisation; dermatitis
Oxygen depleted atmosphere	Breathing difficulties, coughing, fainting, asphyxiation
Radiation	Over exposure to ionising and non-ionising radiation could result in burns e.g. sun burn, welding arc burn, radiation burns; and physical burns from lasers to skin/eyes
Sharps	Risk of contamination with blood borne viruses e.g. Hepatitis B, HIV, Human T Cell Lymphoma and also physical injury
Shift work	Sleep disturbance, anxiety, stress, fatigue, psychological disorders
Stress	Anxiety, depression, mood disorder other mental illness
Vibration	Hand Arm Vibration syndrome e.g. finger numbness, white finger, muscle weakness
Viruses	Hepatitis, blood borne infections, repeated respiratory infections, high incidence of diarrhoea on site
Volatiles	Light headedness, intoxication, headaches, nausea and effects on concentration and cognitive processes, possible respiratory conditions
Working temperatures hot/cold / weather	Respiratory infections aggravation of asthma, cold injury, heat injury

4. When is health surveillance needed and what to do?

The starting point is your risk assessment. The risk assessment will have determined the hazards in the workplace, identified who is at risk and the measures to be taken to control the risks.

Where some risk remains, and there is likely to be harm caused to your employees, you will need to take further steps. You should be undertaking health surveillance if your employees are at risk from:

- Noise or vibration
- Solvents, dusts, fumes, biological agents, or other substances hazardous to health
- Asbestos, lead or working in compressed air
- Ionising radiation

Control measures may not always be reliable, despite appropriate checking and maintenance, so health surveillance can help make sure that any ill health effects are detected as early as possible and before permanent damage is done.

Health surveillance is required if all the following criteria are met:

- There is an identifiable disease/adverse health effect and evidence of a link with workplace exposure
- There is potential for an impact upon health and/or it is likely the disease/health effect may occur
- There are valid techniques for detecting early signs of the disease/health effect
- These techniques do not pose a risk to employees

Regulatory framework for health surveillance required:

- Health surveillance should be undertaken, according to guidance in the relevant regulations. Reviews should be carried out periodically by a competent person(s)
- Specific legal requirements for employers can be found in the relevant regulations such as COSHH. Statutory medical surveillance should be undertaken by HSE-appointed doctors
- Health monitoring may be appropriate as good practice, but this is **NOT** usually a legal requirement

When putting in place a health surveillance programme you should avoid blanket coverage for all employees as this can provide misleading results and waste money. The extent and complexity of health surveillance requirements is a risk-based decision and as such the reasoning should be recorded clearly.

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The flowchart (diagram 1) below illustrates the health surveillance process for new and existing employees, whilst the Health and Safety Executive have produced a diagram (diagram 2 over page) which provides an overview of the health surveillance cycle (a copy of which is available at <http://www.hse.gov.uk/health-surveillance/assets/documents/health-surveillance-cycle.pdf>). As can be seen the employer has a central role in every aspect of health surveillance, with involvement from employees essential to ensuring effective implementation. Further information is available at <http://www.hse.gov.uk/health-surveillance/>

Diagram 1 – health surveillance process for new and existing employees

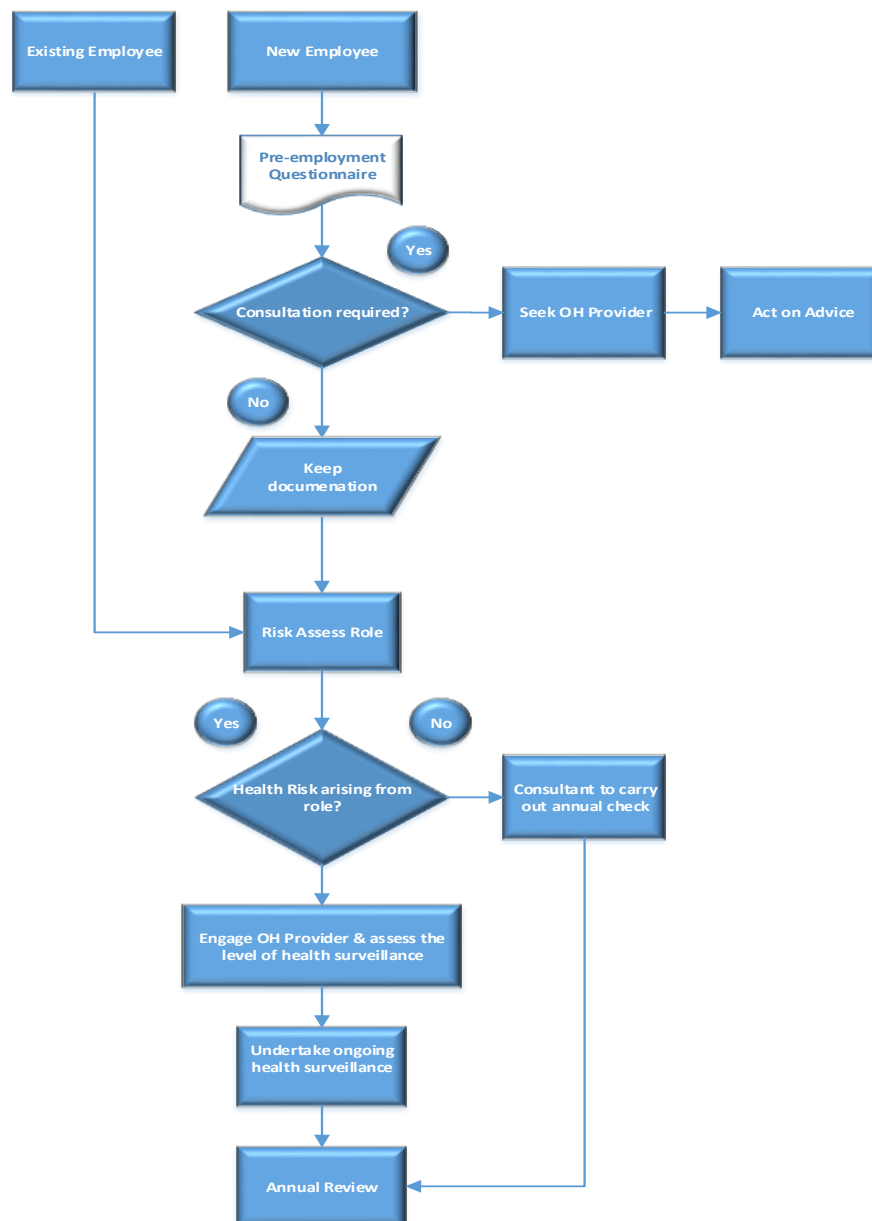
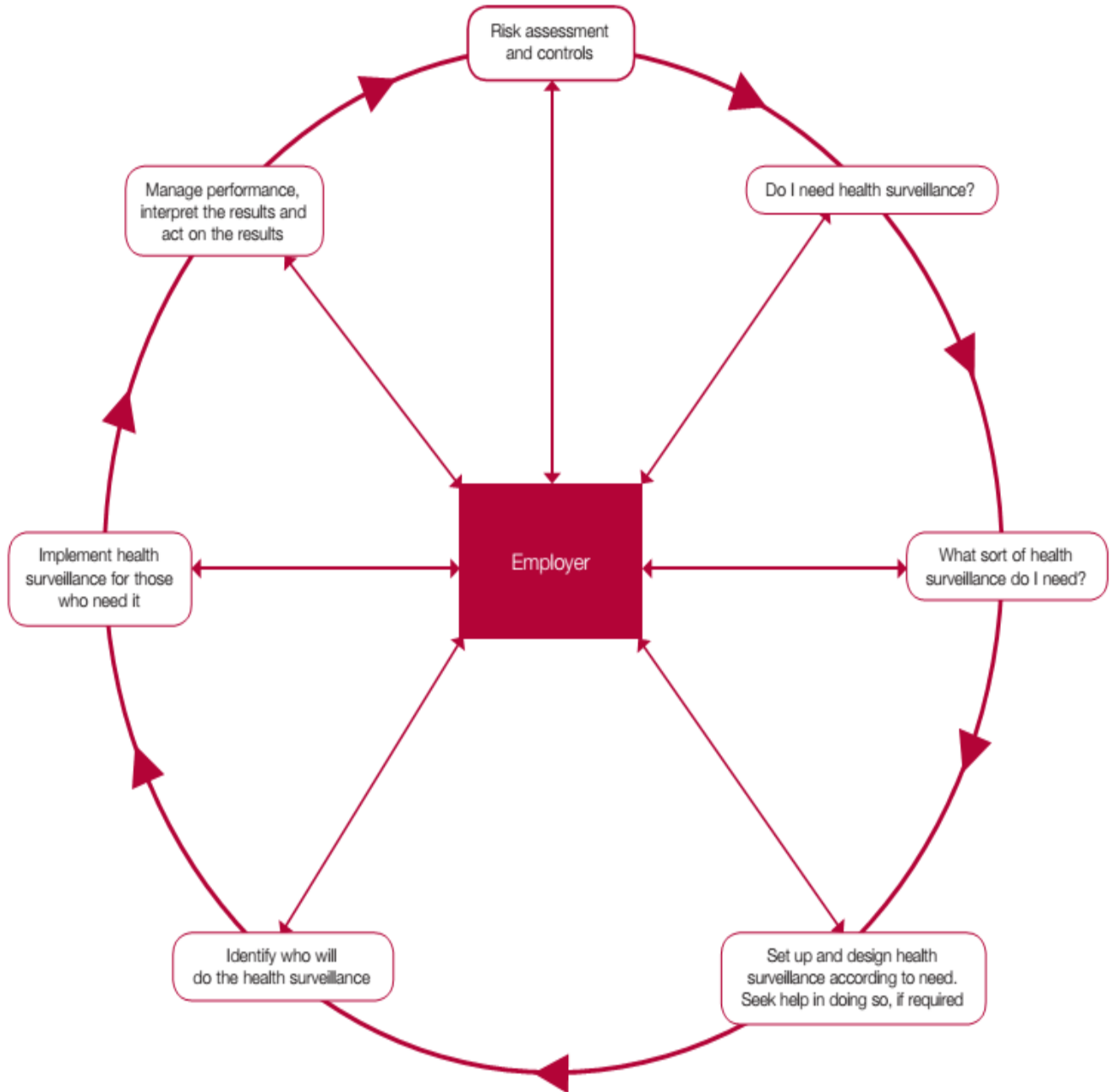


Diagram 2 – an overview of the health surveillance cycle



5. Record keeping and reporting

A health record must be kept for **all** employees who are covered by health surveillance. The records should enable links to be made between exposure and any health effects. Health records, or a copy, should be kept in a suitable form for at least 40 years (60 years for those associated with asbestos) from the date of the last entry because there can often be a long period between exposure and the onset of ill health.

Health records should be Individual and up-to-date health for each employee. They should include details about the employee and the health surveillance procedures relating to them:

- Surname
- Forename(s)
- Gender
- Date of birth
- Permanent address, including post code
- National Insurance number
- Date present employment started

Recorded details of each health surveillance check should include:

- The date they were carried out and by whom
- The outcome of the test/check
- The decision made by the occupational health professional in terms of fitness for task and any restrictions required

The record should be kept in a format that it can be linked with other information e.g., workplace exposure measurements such as air sampling or biological monitoring results.

6. Overview of health surveillance requirements

Table 2 below provides an overview of typical health surveillance requirements relating to common exposures encountered in the waste and recycling sector. Further guidance on the recommendations for frequency and type of surveillance can be found in Appendix 1 to this document (NB. These lists are not designed to be exhaustive but merely provide an indication of best practice).

Table 2 – typical health surveillance requirements

PRIORITY	Type of checks	Examples
<p>RED - Must do! Firstly, ensure full consideration of all options to eliminate and control health risks to a minimum Where residual health risk remains health surveillance may be appropriate</p>	<p>Health Surveillance Legal requirement based on RISK</p>	<ul style="list-style-type: none"> ■ Skin checks for dermatitis from various exposures ■ Respiratory questionnaire for asthmagens and hazardous airborne exposures ■ Lung function tests for asthmagens and hazardous airborne exposure ■ Audiometry for noise exposure ■ HAVS questionnaire and tests for hand arm vibration exposure ■ Biological monitoring for lead and mercury in blood, cadmium in urine etc. ■ Medical surveillance for lead, ionising radiation, and asbestos ■ HGV medicals for Group 2 drivers are a legal requirement at times (e.g. every 5 years from age 45) ■ Questionnaire and offer of health checks for night workers
<p>AMBER Good or industry accepted practice</p>	<p>Can be risk based Covers Fitness for Task health checks for Safety Critical Tasks</p>	<ul style="list-style-type: none"> ■ Health monitoring for musculoskeletal problems ■ Pre-placement health checks ■ Forklift/ car drivers' health assessment ■ Breathing apparatus user medicals for use of RPE ■ Vision tests for identified roles ■ Exit medicals ■ Drug and alcohol testing
<p>GREEN Optional – no legal requirement</p>	<p>Health Screening</p>	<ul style="list-style-type: none"> ■ Height ■ Weight ■ Blood pressure ■ Cholesterol

7. Who can help with health surveillance?

Choosing an Occupational Health Service Provider (OHSP) requires employers to understand their individual company requirements and communicate these to potential providers. It is important for employers to have a provider that is competent and produce reliable results, and any prospective provider should visit any site they are advising on to ensure that they fully understand the issues and hazards that exist. It is therefore important that employees share all relevant information. This guidance will assist employers in choosing an OHSP.

The range of OH provision is wide but in the main falls into three categories:

- Commercial independent providers
- In-house services
- The public sector (i.e., the NHS both hospital-based services and General Practitioners)

The size of the employer and the complexity of the health surveillance needed will determine the nature of the provision required. Table 3 on the following page details some of the advantages and disadvantages to consider when choosing an OHSP.

If you have found that you need health surveillance, the following questions may be useful before or during a first meeting with a potential health surveillance provider:

- Discuss and agree your occupational health needs with your provider
- Check your provider is competent in undertaking the tasks you require of them
- Agree the roles and responsibilities in the health surveillance process, and the communication arrangements for those involved
- Consider the practical aspects of getting people to health surveillance appointments (don't forget shift employees, those working remotely, or those who are absent because of illness or holiday. They all need to be included if they do work which requires health surveillance)
- Agree the format and frequency for the feedback of results, e.g. do you require a written or email format, do you need just the results, or do you need interpretation of their significance as well? Will you need the provider to highlight any actions required?
- Set up a system to review and act on them
- Agree procedures and roles in the referral of those found with ill health for diagnosis or further treatment
- Agree and set up systems to maintain the appropriate records, particularly health records

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- Consider how you might deal with employees found with ill health who may no longer be fit to be exposed, or those who have restrictions placed on exposure
- Agree a timescale for reviewing the health surveillance provision and its performance in helping to manage ill health risks at work

Table 4 summarises these questions in a simple checklist.

Table 3 – considerations for OH provision and consultation

	Contract with Commercial provider	Commercial provider – pay as you go	In- House Provision	Employee’s GP consultation
Advantages	<ul style="list-style-type: none"> - Ability to choose appropriate expertise - Continuity due to long term provision - Clearly defined service provision 	<ul style="list-style-type: none"> - Convenient for smaller companies - Costs more easily controlled - Service provision adjusted according to requirements 	<ul style="list-style-type: none"> - Continuity of service - Visibility in workplace - Easier to build a rapport with staff - Document control - Greater flexibility and not tied to service level agreement/contract - Better understanding of company strategy and objectives - Better understanding of tasks/operations 	<ul style="list-style-type: none"> - Convenient for employee - GP has access to full medical records - May be used in conjunction with an OHSP
Disadvantages	<ul style="list-style-type: none"> - Cost - Possible delay due to provider’s other commitments 	<ul style="list-style-type: none"> - Not systematic and proactive - No guarantees of continuity due to provider’s other commitments 	<ul style="list-style-type: none"> - Cost of specialised equipment and expertise - Possible lack of ‘re-freshed’ and up-to-date knowledge and appropriate provision if communication is not at the correct level for the provider. 	<ul style="list-style-type: none"> - Reactive - Time taken for referral - Possible lack of health and safety legal requirements - Lack of knowledge of the processes to support the worker continuing in the workplace - Lack of knowledge of workplace hazards/risks - Lack of continuity of care

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Table 4 - checklist for engaging potential health surveillance providers

Consideration	Checklist (✓)
Discuss and agree your occupational health needs with your provider	
Share your risk assessments with them	
Describe the working arrangements or arrange a site visit	
Check your provider is competent in undertaking the tasks you require of them	
Agree the roles and responsibilities in the health surveillance process, and the communication arrangements for those involved	
Consider the practical aspects of getting workers to health surveillance appointments	
Agree the frequency of assessments and the costs.	
Agree how feedback of results will be made, e.g. hardcopy by post or email format	
Agree if interpretation of the results will be included in the service and if they will provide advice on any actions required	
Agree procedures for referral of those workers found with ill health if further assessment or treatment are indicated.	
Consider how workers found to have ill health who are no longer fit to be exposed, to the hazard or require restricted exposure will be dealt with	
Agree and set up systems to maintain appropriate records, particularly health records	
Agree a timescale for reviewing the health surveillance provision and its performance in helping to manage ill health risks at work	

Finding a Provider

The Safe Effective Quality Occupational Health Service (SEQOHS) Accreditation Scheme is a stand-alone scheme managed by the Royal College of Physicians of London, which has been selected to lead and manage the process on behalf of the Faculty of Occupational Medicine and has central government backing. The aim of the scheme is to ensure, through regular monitoring, that required standards are maintained by all accredited OH Services. Assessment for accreditation will be against the SEQOHS Standards, which were developed by the Faculty of Occupational Medicine in collaboration with a multi-agency, multi-disciplinary stakeholder group.

Further information can be found on the SEQOHS website at www.seqohs.org and “Find an OH Professional” on the SOM website - <https://www.som.org.uk/find-an-oh-professional>

There are a number of organisations who list Occupational Health providers such as:

- Faculty of Occupational Medicine - www.fom.ac.uk
- Royal College of Nursing - www.rcn.org.uk
- Society of Occupational Medicine - www.som.org.uk
- Association of National Health Occupational Physicians - www.anhops.com
- Occupational Safety and Health Consultants Register - www.oshcr.org
- Commercial Occupational Health Providers Association - www.cohpa.co.uk
- Constructing Better Health - www.cbhscheme.com

The Health & Safety Executive website also provides guidance on how to select a competent advisor to help with health surveillance in the workplace <http://www.hse.gov.uk/health-surveillance/setup/competent-advisors.htm>.

Tips – Personal recommendations are also a good source, as are asking industry partners, collaborators, or colleagues. But take care still to assess the suggested supplier.

Disclaimer and WISH

Nothing in this guidance constitutes legal or other professional advice and no warranty is given, nor liability accepted (to the fullest extent permitted under law) for any loss or damage suffered or incurred as a consequence of reliance on this guide. The guidance is not a substitute for duty holder judgment and/or professional safety advisor's judgment, Notwithstanding the good practice in this guidance, duty holders are responsible for ascertaining the sufficiency and adequacy of their internal and independent procedures for verifying and evaluating their organisation's compliance with health and safety law. WISH accepts no liability (to the fullest extent permitted under law) for any act or omission of any persons using the guidance.

The Waste Industry Safety and Health (WISH) Forum exists to communicate and consult with key stakeholders, including local and national government bodies, equipment manufacturers, trade associations, professional associations and trade unions. The aim of WISH is to identify, devise and promote activities that can improve industry health and safety performance.

Further information

This guidance is issued by the Waste Industry Health and Safety (WISH) Forum to help control safety and health risks. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This guidance, and all WISH documents, is available free to download at <https://wishforum.org.uk/>

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Appendix 1 - recommendations for frequency and type of surveillance

Risk	Pre –commencement		Surveillance during employment	
	Questionnaire	Assessment	Questionnaire	Surveillance visit
Audiometric testing - where noise is measured above 85dBA	Yes	Baseline Audiometric Testing Employment subject to satisfactory results	No	Yes. Visit annually for the first 2 years of employment and then at 36 months intervals (although this may need to be more frequent if any problem with hearing is detected or where the risk of hearing damage is high)
Respiratory testing - work that involves exposure to respiratory sensitisers	Yes	Baseline Respiratory testing Employment subject to satisfactory results	No	Yes. On-site or off site visit annually
Night workers (regularly working 3 hours or more 23.00 to 06.00)	Yes	Results of Questionnaire may lead to medical examination. Or in the event the risk assessment identifies an issue	Yes Annual	No
Activities involving vibrating hand tools leading to HAVS	Yes	Employment subject to satisfactory results	Yes Annual to identify changes in 12-month periods. Referral may be required	Yes. Face to face assessment for those identifying symptoms at annual screening and every 3 years if no issues are identified
Composting site staff (including landfill staff)	Yes	Examination by Occupational Health Provider. Employment subject to satisfactory results	Yes Completed by every operative after 6 weeks and 12 weeks, then annually	Yes - Nurse to conduct on - site visit annually. To check respiration and skin condition
Skin surveillance for employees exposed to skin carcinogens or harmful substances	Yes	Results of Questionnaire may lead to medical examination. Employment subject to satisfactory results.	No	Skin monitoring at frequency according to risk

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Appendix 2 – potential exposures by job task

NOTE: This is not intended to provide an exhaustive list of operations and tasks – you need to identify all relevant tasks.

Example Operation	Employment	Potential exposures
Waste and recycling collections	Driver/driver Loader	Noise
		Oil and waste (dermatitis). From coming into repeated contact
		Dust from wastes
		Derv fumes, oils, greases from daily checks/fuelling
		Contaminated sharps
		Manual handling
	Bioaerosols (if organic or residual wastes are present)	
	Loader	Noise (particularly if glass collected)
		Oil and waste (dermatitis). From coming into repeated contact
		Dust from wastes
		Derv fumes, oils, greases from daily checks/fuelling
		Manual handling
Bioaerosols (if organic or residual wastes are present)		
Street cleansing / landscapes	Street cleanser/ Landscapes Gardener	Noise
		Oil and waste (dermatitis). From coming into repeated contact
		Dust from wastes
		Derv fumes, oils, greases from daily checks/fuelling
		Manual handling
		Activities involving vibrating hand tools leading to HAV
Dry waste transfer and recycling	Mobile plant operative	Dust from wastes (mobile plant has air-con and filters)
		Dust from rubble etc. (as above)
		Noise/vibration from plant operation
		Derv fumes, oils, greases from daily checks/fuelling
		Manual handling

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Example Operation	Employment	Potential exposures
Dry waste transfer and recycling continued	Recycling picker	Dusts from wastes
		Dusts from rubble etc (construction MRFs)
		Organic substances (endotoxins, glucans etc)
		Contaminated sharps
		Noise from static plant operation
		Manual handling
	General operative	Dusts from wastes
		Dusts from rubble etc. (construction MRFs)
		Organic substances (endotoxins, glucans etc.)
		Contaminated sharps
		Noise from static/mobile plant operation
		Manual Handling
	Maintenance	Noise from power tools etc
		Vibration from power tools etc
		Oils, degreasers, greases etc. during work
		Welding fumes from work
		Derv fumes in workshops
		Manual handling
Civic Amenity (CA) Site (CA, RRC HWRC)	CA site operative, mobile plant operative	Vibration from power tools etc
		Dusts from wastes
		Oils, degreasers, greases etc. during work
		Derv fumes in workshops
		Wastes – batteries, waste oils etc
		Manual handling

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Example Operation	Employment	Potential exposures
MRF facilities	Mobile plant operative	Dust from wastes (mobile plant has air-con and filters)
		Organic substances (endotoxins, glucans, spores etc.)
		Vibration from plant operation
		Derv fumes, oils, greases from daily checks/fuelling
		Dust from rubble etc. (as above)
		Noise from plant operation
	Maintenance	Noise from power tools etc
		Vibration from power tools etc
		Oils, degreasers, greases etc. during work
		Welding fumes from work
		Derv fumes in workshops
		Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc.)
	Noise from static plant operation	
	General operatives	Manual handling
Dusts from wastes		
Organic substances (endotoxins, glucans, spores etc.)		
Energy from waste facilities	Mobile plant operative	Noise from static plant operation
		Dust from wastes (mobile plant has air-con and filters)
		Organic substances (endotoxins, glucans, spores etc.)
		Vibration from plant operation
		Derv fumes, oils, greases from daily checks/fuelling
		Dust from rubble etc. (as above)
Noise from plant operation		

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Example Operation	Employment	Potential exposures
Energy from waste facilities continued	Maintenance	Noise from power tools etc
		Vibration from power tools etc
		Oils, degreasers, greases et. during work
		Welding fumes from work
		Derv fumes in workshops
		Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
		Manual Handling
	General operatives	Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
		Manual handling
Anaerobic digestion	General operatives incl. mobile/static plant operatives	Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
		Manual Handling
	Maintenance	Noise from power tools etc
		Vibration from power tools etc
		Oils, degreasers, greases etc during work
		Welding fumes from work
		Derv fumes in workshops
		Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
		Manual Handling

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Example Operation	Employment	Potential exposures
Composting	General operatives incl. mobile/static plant operatives	Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
		Manual handling
	Maintenance	Noise from power tools etc
		Manual handling
		Vibration from power tools etc
		Oils, degreasers, greases etc. during work
		Welding fumes from work
		Derv fumes in workshops
		Dusts from wastes
		Organic substances (endotoxins, glucans, spores etc)
		Noise from static plant operation
Landfill	Mobile plant operator	Dust from wastes (mobile plant has air-con and filters)
		Dust from rubble etc (as above)
		Noise from plant operation
		Vibration from plant operation
		Derv fumes, oils, greases from daily checks/fuelling
	Operative	Dust from wastes (RPE available plus damping)
		Dust from rubble etc. (as above)
		Noise from plant/vehicle operation
		Exposure to derv fumes from vehicles
Support and admin	All managerial, support and admin staff	Potential low-level exposures if site based (check office ventilation sources)
		Manual handling