



Buyer's Guide for Obtaining Occupational Hygiene Services

Executive Summary

In a recent publication on '[Understanding the impact of business to business health and safety 'rules'](#)', the Health and Safety Executive (HSE) concluded that consultancy is an essential component of the health and safety system, '*particularly for the management of complex or significant risks and that it is often a way for businesses to meet their regulatory duty to appoint a 'competent person' for the management of health and safety.*

HSE recognises that there are large numbers of well-qualified and experienced consultants, contributing effective and proportionate advice.'

HSE advise that professional societies such as the British Occupational Hygiene Society (BOHS) can support duty holders, '*via the provision of focused and proportionate advice by their members, which is tailored to the needs of individual businesses and delivers compliance.*

It is also essential that consultants do not stray beyond their competence, particularly when dealing with high risk activities.'

This Buyer's Guide aims to assist those seeking occupational hygiene specialist services to find the right competent advice for their needs.

BOHS recognise a difference in the likely breadth and depth of knowledge that a Chartered Member or Fellow may have, compared to a Licentiate, and between a Licentiate and a Technician.

The online BOHS [Directory of Occupational Hygiene Services](#) is the definitive list of organisations that are able to provide qualified and experienced occupational hygienists and specialist occupational hygiene support services.

Directory eligibility is dependent on:

1. the company employing at least one Licentiate, Chartered Member or Chartered Fellow of the BOHS Faculty of Occupational Hygiene;
2. the Faculty members having up-to-date subscriptions; and
3. the Faculty members participating in the mandatory continuing professional development (CPD) scheme.

Whilst appropriate professional qualifications alone do not guarantee a good consultancy service, they make it more likely. BOHS has published a [Good Practice Guide for Consultants](#) and those following this guide are likely to have appropriate management systems in place that should facilitate a better quality of service.

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1. Introduction

The job title of occupational hygienist is not a protected job title and therefore legally anyone can call themselves an occupational hygienist. The title of 'Chartered Occupational Hygienist' is however a protected job title and only those who are Chartered Members or Fellows of the BOHS Faculty of Occupational Hygiene can legally use this title.

The aim of this guide is to assist businesses wishing to engage the services of an occupational hygiene consultant to obtain the appropriate competent advice for their needs.

2. Responsibilities as an Employer

[Regulation 7](#) of The Management of Health and Safety at Work Regulations 1999 requires employers to appoint one or more competent persons to assist with health and safety. Where employers have complex exposure scenarios and/or higher hazard agents and no relevant in-house expertise, they may need to take external advice from an Occupational Hygienist or other specialist.

The need for employers to assess the competence of those that advise them is highlighted in The Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended) [Approved Code of Practice](#) (ACOP) and is repeated several times, for example:

- *"Employers must ensure that whoever carries out the assessment and provides advice on prevention and control of exposure is competent to do so..."* ACOP Regulation 6 paragraph 51.
- *"Employers must also ensure that whoever provides advice on prevention and control of exposure is competent to do so...A competent person will have adequate knowledge, training and expertise eg in the design of processes, control measures, including ventilation and PPE, the human and technical reasons why these control measures can fail, and the importance of following the principles of good practice for the control of substances hazardous to health".* ACOP Regulation 7 paragraph 95.
- *"Anyone who checks on the effectiveness of any element of a control measure should have the competence to do so. The degree of theoretical and practical knowledge required will increase with the likelihood of control failure".* Guidance Regulation 9 paragraph 162.
- *"Employers must ensure that whoever carries out maintenance, examinations and tests is competent to do so..."*. ACOP Regulation 9, Paragraph 175.
- *"When an employer appoints a person to carry out exposure monitoring, they should ensure that they are competent to do so..."*. Guidance Regulation 10 paragraph 219.
- *"The employer must ensure that those employed to conduct health surveillance are competent to do so..."*. Guidance Regulation 11 paragraph 243.
- *"The employer must ensure that the person, or people, to whom any work is delegated is competent to do it and this may mean having to use the services of consultants and outside experts. If this becomes necessary, the employer will still need to ensure that the people involved receive sufficient information about the particular circumstances of the work, including the hazardous*

substances used or produced and their hazardous properties.”. ACOP Regulation 12 paragraph 268.

An employer needs to take reasonable steps to ensure the competence of consultants.

Not only must the people who advise on assessments and control measures be competent, but also those who check and test those control measures.

A competent consultant should know what competence looks like and should be able to demonstrate it to you.

3. Getting Occupational Hygiene Specialist Help

In many cases, businesses can manage health and safety themselves or with the help of in-house advisors. However, there are times when businesses will need to obtain external specialist skills or knowledge, particularly on more detailed or technical issues or when specialist equipment is required.

Deciding exactly what help you need is very important. Unless you are clear at this initial stage, you probably won't get the help and assistance that you really need.

If you are looking for occupational hygiene specialist help, you should ask yourself the following questions:

What is the challenge that I am seeking to address?

Do I want:

- specific help to identify the most suitable control solution for a scenario; and/or
- some specialist monitoring work undertaken to confirm whether controls are effective; and/or
- a general review of arrangements for the management of health hazards?

If you are clear about why you need specialist help, this will help you identify what type of specialist is best placed to assist you.

If I engage specialist help, what do I need it to do for me?

You will need to clearly explain your needs/requirements to the occupational hygiene consultancy and provide information on processes and products used, so they can properly understand the issue and provide you with the service you need.

Ask them to confirm that they understand the work to be undertaken, what the final deliverables and timescales are and to provide a breakdown of charges.

Will the specialist help be good enough to solve my problem?

There are some key things to consider:

- Do they have evidence of relevant competency, such as formal qualifications and training (e.g. the BOHS Certificate of Operational Competence in Occupational Hygiene (CertOH) or the Diploma of Professional Competence in Occupational Hygiene (DipOH))?

- Do they have practical experience related to your industry, or processes?
- Can they explain to you why they think are competent to advise you on this problem?
- Do they have the resource to complete the work within the required timescale?
- Will they need to sub-contract the work or any part of the work?
- Can they provide references for completed work that is similar to my project?
- Are they a member of a relevant professional body e.g. FOH (Faculty of Occupational Hygiene), FAAM (Faculty of Asbestos Assessment and Management), IOA (Institute of Acoustics), ILEVE (Institute of Local Exhaust Ventilation Engineers), IOSH (Institution of Occupational Safety and Health) or similar? If you are in any doubt, you can check with the professional body for guidance on the relevant training/knowledge and qualifications, and the specialist's membership grade and status.

The BOHS FOH is the professional home for all practitioners who work with a discipline of Occupational Hygiene.

An indication as to whether a company is competent is if the company is included in the BOHS Directory of Occupational Hygiene Consultants.

4. BOHS Directory of Occupational Hygiene Consultants

The BOHS Directory of Occupational Hygiene Services is the definitive list of companies that can provide qualified and experienced occupational hygienists and specialist occupational hygiene support services.

Directory eligibility is dependent on:

1. the company employing at least one Specialist Licentiate or Licentiate, Specialist Member or Chartered Member, or Chartered Fellow of the BOHS Faculty of Occupational Hygiene;
2. the Faculty members having up-to-date subscriptions; and
3. the Faculty members participation in the [continuing professional development](#), scheme.

Those on the register are also bound by the BOHS Faculty [Code of Ethics](#).

You can search the register by location. The live register is available here: <https://login.bohs.org/BOHS/Membership/2/BOHS/Directory-of-Occupational-Hygiene-Services/DOHSsearch.aspx>. The functionality of the Directory is currently being enhanced to introduce features that will enable you to more easily find the right assistance for your needs.

Whilst all entrants in the BOHS Directory of Occupational Hygiene Consultants employ at least one competent person, not all consultants will offer the same services, or have the same breadth and depth of qualifications, experience or knowledge.

A Licentiate (LFOH) will have passed the BOHS [Certificate of Operational Competence](#), whilst a Chartered Member (CMFOH) or Fellow (CFFOH) will have passed the BOHS [Diploma of Professional Competence](#) and will have at least 5 years' comprehensive professional experience. See Appendix 1 for more information on the differences between the BOHS Membership grades.

The Diploma is the highest professional occupational hygiene qualification awarded in the UK. Award of the Diploma qualifies the holder to become a Chartered Member of the Faculty, and demonstrates knowledge of, and competence in, assessment of health hazards and the extent of risk in various workplace circumstances, and an ability to advise on suitable control procedures.

A Fellow or Member (or Specialist Member working within their specialism) is likely be more equipped than a Licentiate to deal with more complex or more unusual exposure scenarios and be able to provide more bespoke control solutions. They should be able to provide a more strategic approach to health risk management, a Licentiate being more suitable for routine transactional work, such as monitoring.

What is the difference between a consultant registered as a Licentiate, compared to one registered as a Chartered Member or Fellow?

A Licentiate will have been able to demonstrate to BOHS the following skills and knowledge:

- a) Analysis of problems and recognition of the hazards that may exist;
- b) Practical assessment of risks, including appropriate equipment selection;
- c) Conduct of necessary hygiene measurements and selection and correct operation of sampling or measurement equipment;
- d) Calculation and interpretation of measurement results as appropriate; and
- e) Understanding the basics of control (hierarchy) and be able to assess existing controls (LEV systems/RPE/PPE).

A Chartered Member or Fellow should have the skills and knowledge of a Certificate holder, and in addition will have to demonstrate to BOHS the following professional traits:

- f) An ability to identify and critically analyse relevant sources of information;
- g) A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of occupational hygiene;
- h) Originality in the application of knowledge, together with a practical understanding of how established techniques of practice, research and enquiry are used to create and interpret knowledge in the discipline;
- i) An ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences;
- j) Originality in tackling and solving problems; and
- k) An understanding of any relevant ethical issues relating to the subject matter.

Specialist membership of the BOHS Faculty is available to those individuals who have specialised in one area of occupational hygiene, such as local exhaust ventilation, legionella or asbestos. Specialist Members may be deep subject matter experts in their area but may not be able to demonstrate competence across the broader discipline of occupational hygiene.

5. Consultant Competence and Supervision

The Consultancy company should be able to demonstrate that it has identified the competencies required to perform the range of occupational hygiene activities that it undertakes and that it has processes in place to train, assess and monitor staff against those competencies.

Individual staff should only undertake work according to their competence, experience and training.

Effective supervision within the consultancy shall include the witnessing of occupational hygiene work.

The following should be used as a guide for determining suitable levels of supervision for staff within the organisation undertaking occupational hygiene work.

Category 1 - Chartered Fellow or Chartered Member e.g. a holder of the BOHS Diploma of Professional Competence, or Specialist Member (working within the scope of their specialism).

Staff in this category have the broadest and deepest experience and should be able to work to high professional standards. They should be able to assess risks, devise sampling strategies and recommend fit-for-purpose control measures to reduce worker health exposure.

Staff in this category are likely to be technical leads within the organisation and be capable of operating at a senior managerial level and would set the professional standards accordingly and mentor others in the organisation.

Category 2 – Licentiate e.g. a holder of the BOHS Certificate of Operational Competence or a Specialist Licentiate (working within the scope of their specialism).

Staff in this category should be able to assess risks, devise sampling strategies and recommend fit-for-purpose control measures to reduce worker health exposure.

Staff in this category would normally only require occasional supervision or technical support.

Category 3 – Associate with the appropriate BOHS Occupational Hygiene W Module or a BOHS approved Occupational Hygiene degree.

Staff in this category should be technically competent to undertake surveys, inspection and testing in accordance with their experience and training but should be under the supervision of a competent person who signs off the report.

Staff in this category will require infrequent supervision for less complex work (i.e. at least quarterly) and frequent (i.e. at least weekly) supervision for more complex work.

Category 4 – Technician with no formal Occupational Hygiene qualifications.

Staff in this category are likely to be undertake less complex work and need to operate under a high degree of supervision from a Category 3 person or above i.e. frequent (at least weekly) or daily.

Persons operating in this category who are not under the supervision of an occupational hygienist from Categories 1-3 above are not deemed to be competent by BOHS to undertake occupational hygiene consultancy work.

6. Obtaining a Quotation

You should shop around to find the right help at the right price. If you were buying equipment or another service for your business, you wouldn't always accept the first offer, so apply the same logic with occupational hygiene advice. It is good practice to obtain more than one quote.

Invite potential contractors to visit your site to see your processes. This will assist both them and you in ensuring that you obtain the outcome required.

You need to be able to describe the process, the hazardous substances (and/or physical agents e.g. noise, vibration, etc) in use, and the sources of exposure. It would be useful to make the safety data sheets for the hazardous substances available to the consultant.

You also need to have a clear idea of why you need to engage the services of an occupational hygiene consultant:

- Is this to estimate or quantify exposure as part of a risk assessment process for a new product or process,
- Is it to check on the effectiveness of existing controls,
- Is it for routine regulatory requirements e.g. thorough, examination and testing of Local Exhaust Ventilation systems,
- or for another purpose?

This information will need to be communicated so that the person preparing the quotation develops a specification to meet your needs.

If there are new or novel risks or processes, or multiple sources of exposure or multiple hazards, and more complex controls may be needed e.g. for asthmagens or carcinogens, then a consultant with broader or deeper experience may be needed (e.g. a Chartered Member or Fellow).

You also need to check that the consultant is adequately insured for both professional indemnity and public liability.

Whilst the BOHS Directory requires at least one competent person be employed within the company, the person attending site may not be that named competent person. It should be clear who will be undertaking the work and who is signing it off.

Is a competent occupational hygienist preparing the quote? If not, is the quote checked by one, in order to ensure that it meets your needs?

When you receive the quotation, check that:

- it includes everything you have asked for,
- it will meet your needs, and
- the lead time and completion timescales are satisfactory.

Does the quotation include caveats which may adversely affect the outcome which you were hoping for?

What category of staff (see the [Good Practice Guide for Consultants](#)) is the consultant planning to use to undertake the work at your site? If this is staff from Categories 3 & 4 (see Previous Section), then how will this employee be supervised, by whom and how often?

Who is going to write the report and quality control check it? Does the reviewer have an appropriate level of BOHS membership, as outlined previously?

7. Co-operation and Co-ordination

You need to make sure that the consultant has all the relevant information they will need to recognise, evaluate and control the risk to health in your workplace.

You may need to ensure that specific processes are running, and that relevant operators and/or maintenance/engineering staff are available.

If the consultant will have to undertake work at height, or access/inspect equipment, suitable co-ordination will be needed to ensure that this can be undertaken safely.

Once the work has started, make sure you keep a check on how the work is going against what you have agreed.

8. How do I Make Sure I Have Received the Help I Needed?

Once you have received the report, does it provide you with a practical, sensible solution to your problem? Or, do you think you have ended up with something completely 'over the top', or a mountain of generic paperwork? If necessary, ask the consultant to explain, and to consider whether there may be a simpler alternative.

Read the report when you receive it and if there is something that is incorrect or you do not understand or agree with, you should take this up with the consultant as soon as practical.

HSE COSHH Essentials Direct Guidance Sheet [G409](#) recommends that the following information should all be included in a consultant's exposure measurement air sampling report:

Facts:

- background to, and the purpose of the survey;
- the process measured, the work patterns, and the hazards involved;
- the control measures in place, and their performance;
- photographs and diagrams;
- what measurements were taken (long and short-term), and how;
- how and where samples were analysed;
- exposure limits or exposure benchmarks, and whether these are protective of health;

- any industry standards of good control practice; and
- results, related to a plan of the process. This includes how 8-hour time-weighted average concentrations were calculated.

Opinion:

- identified exposure sources, discussion of results, compliance with standards, the adequacy of controls and an assessment of risk;
- identification of tasks not measured that are likely to be an exposure source;
- any work group that could be exposed but were not measured;
- other matters of concern, and how to address them;
- recommendations for improvement (eg action plan for controls, training, health surveillance); or
- recommendations for further surveys to measure the effectiveness of the changes.

Make sure you understand the recommendations and the difference between what you must do (e.g. from a legal perspective) and what you could do. Ensure that any questions you had about implementing the recommendations have been addressed.

9. Complaints Procedure

BOHS Faculty Committee is responsible for the maintenance and improvement of occupational hygiene professional standards and can take sanctions against Faculty members if they breach the Code of Ethics.

Section 3.5 of the Code of Ethics states that Faculty members shall practise their profession with integrity, *'providing sensible and proportionate advice by:*

- *making clear what health and safety law requires;*
- *exercising professional judgement to decide what action must be taken in a particular situation;*
- *making clear what choices exist for achieving results and the consequences of choosing between options; and*
- *distinguishing clearly between legal requirements and best practise (i.e. the 'must do' and the 'could do').'*

If you feel you have not received the level of Occupational Hygiene service you had expected, please refer to the Faculty Code of Ethics. There is an established [complaints procedure](#) and complaints can be initiated by emailing complaints@bohs.org. The objective of the procedure is to handle complaints and disciplinary matters in a fair and reasonable manner and it lays out the actions that will be implemented by BOHS if there are allegations against an individual member of the Faculty in relation to compliance with the Code of Ethics,

BOHS acknowledges that:

- compliance with the Code of Ethics is mandatory for all non-retired members of the Faculty; and
- compliance with the Good Practice Guide for Consultants is currently a voluntary commitment for those organisations in the Directory of Occupational Hygiene Consultants.

APPENDIX 1

Guide to BOHS Faculty Membership Grades – information taken from the [BOHS Byelaws](#) and the Faculty Membership section of the [BOHS website](#)

Membership Grade and post-nominal letters (if applicable)	BOHS members at this grade will have....
Chartered Fellow - CFFOH	been Members of the Faculty for at least 5 consecutive years and who can offer additional evidence of mature experience and senior responsibility.
Chartered Member - CMFOH	attained experience at an advanced level and can demonstrate appropriate academic attainment and competence. A Chartered Member will have passed the BOHS Diploma of Professional Competence (DipOH).
Specialist Member – MFOH(S)	attained experience at an advanced level in a relevant specialist field and can demonstrate appropriate academic attainment and competence. A Specialist Member must hold an honours or postgraduate degree or equivalent qualification in a scientific or technological subject relevant to occupational hygiene and have at least five years' experience in the specialist subject offered.
Licentiate Member – LFOH	attained broad technical experience and can demonstrate academic attainment and competence. A Licentiate will have passed the BOHS Certificate of Operational Competence (CertOH) OR the International Certificate of Operational Competence in Occupational Hygiene (ICertOH).
Specialist Licentiate – LFOH(S)	attained broad technical experience in the relevant specialist field and can demonstrate appropriate academic attainment and competence. A Specialist Licentiate will hold the Certificate of Competence (CoC) in an individual subject and also hold the W201 Basic Principles in Occupational Hygiene foundation level course.
Associate - AFOH	demonstrated appropriate understanding of the principles. An Associate must hold one of the Occupational Hygiene modules (W module) OR a BOHS approved degree in occupational hygiene.
Technician	demonstrated a basic level of understanding.

APPENDIX 2

Example for Buyers on What is the Difference between different skill levels of Occupational Hygienists.

The table on the following pages is a non-exhaustive list and is provided for illustrative purposes. It does not cover the full spectrum of occupational hygiene activities (for example, Non-Ionising/Ionising Radiation, Asbestos, Legionella, Occupational Hygiene Strategy and Management, Data Interpretation and Statistics, and Legislation).

	Associate	Licentiate	Chartered Professional
Skill	Completion of some professional training modules. Able to undertake some supervised field activity.	Basic operational competence level e.g. LFOH. Able to undertake a range of core (and some specialist) occupational hygiene activities unsupervised.	Full professional certification e.g. CMFOH/CFFOH. Able to provide professional occupational services and give strategic direction, within their areas of competence.
Harmful Effects of Hazardous Agents	Understand the toxic properties of hazardous materials and by-products and concepts of dose response relationships and no effect levels.	Understand adverse synergistic interactions.	Analyse complex interactions. Apply knowledge of effects of exposure, dose response relationships and disease potential.
	Understand mode of action additive/synergistic effects, absorption, target organs, toxicity testing, LD50, carcinogenicity, mutagenicity, repro hazards. Recognise the primary acute and chronic effects of hazardous substances based on MSDS.	Interpret toxicological data provided on SDS and other sources of information. Communicate hazards to workers in an organised manner enabling workers to protect themselves.	Review and apply scientific literature to develop proper toxicological information to be used on Safety Data Sheets to develop worker hazard training programmes.
	Understand the categories of basic exposure control methods.	Calculate/estimate and interpret potential exposures from exposure assessment measurements and potential methods to reduce exposures.	Design, develop, implement and evaluate controls to reduce or prevent exposures.
	Apply toxicological principles to evaluate and predict health effects from exposures to single contaminants, mixtures and natural and synthetic agents, interpret labels and SDSs, communicate the hazards to workers using the GHS criteria.	Explain the components of the GHS. Apply the definitions to chemicals found in the workplace.	Categorise a new chemical using the GHS based on collected data or data available in the scientific literature. Review exposure data of employees to evaluate potential adverse effect and recognise when employees may be exhibiting effects from exposure.
Exposure Monitoring	Appropriately apply a sampling strategy for specified contaminants, settings and conditions.	Develop and determine appropriate application of sampling strategy for limited compounds.	Design and evaluate sampling strategies for multiple contaminants or stressors.

	Describe the appropriate air sampling equipment for the collection of full-shift, task-based and grab samples.	Select the appropriate instrument to collect full-shift, task based and grab-samples.	For a selected instrument describe the advantages and disadvantages for its use in the collection and full-shift, task-based and grab samples.
	Recognise which lab analytical instruments and methods are relevant for applicable sample analysis.	Apply specific knowledge about analytical techniques in choosing to analysis for a specific containment.	Determine options for selection and use of different laboratory analytical procedures, instruments and methods to provide a broad range of detection and measurement of target compounds.
	Conduct appropriate calibration of instruments.	Conduct appropriate instrument calibration and interpret results in line with the sampling strategy.	Evaluate and modify instrument calibration in keeping with quality assurances for sampling validation.
Engineering Controls and ventilation	Recommend and apply LEV, dilution ventilation, isolation and process change engineering principles to control chemical, biological and physical exposures. Able to use proper test equipment to verify LEV equipment such as hoods complies with standards. Verify dilution ventilation functions as designed.	Review design drawings and verify that dilution ventilation and LEV meets the necessary exhaust rates in compliance with recognised standards.	Design LEV to provide adequate protection for control of chemical, biological and physical exposures. Incorporate appropriate monitoring equipment for variable airflow systems to ensure exposure levels are not exceeded.

	<p>Understand the mechanics of airflow, ventilation measurements, design, in-plant air circulation, air cleaning technology and related calculations Identify the components of a ventilation system. Properly operate and read test instruments and report results.</p>	<p>Interpret airflow and ventilation measurements and compare to accepted standards. Inspect ventilation system components to identify causes of deviations from standards.</p>	<p>Design and supervise installation of necessary and appropriate ventilation equipment, including air cleaning components for dilution and local exhaust systems. Provide necessary design components for air quality consideration, including temperature, humidity, and adequate make-up air.</p>
Non-Engineering Controls and Ventilation	<p>Implement scheduling strategies and established worker rotation practices. Audit to ensure that written procedures are being followed.</p>	<p>Describe regulatory constraints on use of scheduling strategies and worker rotation. Conduct worker safety and health training.</p>	<p>Evaluate the use and limitations of scheduling strategies and worker rotation as an exposure control method. Provide input and help to develop written procedures to minimize worker exposure. Develop and deliver worker training on hazards and appropriate use of controls.</p>
	<p>Identify user concerns about protective clothing and dermal protection.</p>	<p>Conduct personal protective equipment hazard assessments. Recognise the interaction between the worker, task, and materials when selecting PPE.</p>	<p>Establish a dermal/exposure personal protective equipment management program.</p>
	<p>Identify user concerns about respiratory protection.</p>	<p>Conduct respirator hazard assessments. Recognise the interaction between the worker, task, and materials when selecting PPE.</p>	<p>Establish a respiratory protection management program.</p>

	Conduct and document respirator fit tests. Understand and apply and breathing air specifications.	Interpret fit test and breathing air results.	Serve as respirator program administrator. Select appropriate respirators and develop appropriate test systems and protocols.
	Recognise limitations of PPE to provide worker protection.	Describe the limitations of protective equipment devices and materials, and conduct training.	Define and conduct PPE training objectives and content. Troubleshoot PPE failures.
Noise and vibration	Know how to calibrate and use equipment to determine worker noise & vibration exposure.	Develop and determine appropriate sampling strategy for assessing worker exposure to noise & vibration.	Interpret results of worker noise & vibration exposure with respect to compliance with standards and potential for hearing loss and effects of vibration exposure
	Recognise situations where workers are at risk of excessive noise or vibration exposure and recommend methods to eliminate or control excessive exposure.	Select the appropriate instrument and method to monitor noise / vibration exposure to use as the basis of control.	Develop and implement strategy to ensure valid information is obtained to design and recommend measures to eliminate worker exposure to excessive noise or vibration.
	Explain the mechanics of incurring hearing loss and the effects of vibration exposure.	Describe the relationship between the physics of noise and its consequences with respect to the auditory system. Similarly with vibration exposure.	Recommend and ensure implementation of specific controls and hearing loss prevention measures to protect workers from noise and means of reducing vibration exposure.

Ergonomics	Recognise ergonomic risk factors such that one can identify ergonomically stressful jobs and potential controls to reduce ergonomic risk factors.	Apply specific principles of anthropometry, human factors engineering, biomechanics, work physiology, human anatomy, occupational medicine, and facilities engineering to analyse ergonomically stressful jobs.	Evaluate and recommend the most effective controls to mitigate ergonomically stressful jobs.
Thermal Environment	Understand the risk factors associated with the development of a thermal stress illness. Familiar with thermal comfort standards. Conduct basic thermal comfort surveys e.g. WBGT index.	Evaluate the workplace to identify risk factors associated with the development of heat- and cold-related disorders. Understand the application of heat indices.	Develop and implement comprehensive thermal strain prevention programs.
	Identify and differentiate symptoms associated with various thermal-related disorders. Apply appropriate first aid treatments.	Develop training programs to increase worker awareness. Prepare appropriate emergency procedures.	Evaluate work environments to predict the likelihood of workers developing a thermal stress-related illness. Evaluate, revise, and implement thermal stress programs and training. Develop and implement preventive controls.