

APPROVED INSPECTION AUTHORITIES: OCCUPATIONAL HYGIENE.

INFORMATION BROCHURE NO. 1:

Occupational Health and Safety Programme.

DEPARTMENT OF HEALTH.



This information brochure is directed at Health Care Workers who wish to apply to become an Approved Inspection Authority for the monitoring of occupational hygiene stress factors in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993). It describes the procedure and the minimum requirements for approval.

This information brochure will be revised periodically.

**DEPARTMENT OF HEALTH .
OCCUPATIONAL HEALTH AND SAFETY : PROGRAMME.**

**B.C. MABASO.
PROGRAMME MANAGER.**

1. **INTRODUCTION**

The Act places the onus on employers to ensure that the working environment is safe and without risks to the health of their employees. In order to accomplish this, employers must assess the exposure of their employees to hazardous environmental conditions in the workplace. Where this assessment indicates an ongoing risk from exposure. They must measure that exposure, compare the results with prescribed standards and implement the steps that needed to comply with the provisions of the Act. This process which is known as monitoring, must be performed or verified (see Annexure 1) by an Approved Inspection Authority.

2. **WHAT IS AN APPROVED INSPECTION AUTHORITY?**

The Occupational Health and Safety Act, 1993, defines an Approved Inspection Authority as:

an inspection authority approved by the chief inspector: Provided that an inspection authority approved by the chief inspector with respect to any particular service shall be an Approved Inspection Authority with respect to that service only.

The question then arises, what is an inspection authority? The Act defines an inspection authority as:

any person who with the aid of specialised knowledge or equipment or after such investigations, tests, sampling or analyses as he may consider necessary, and whether for reward or otherwise, renders a service by making special findings, purporting to be objective findings, as to -

- a) the health of any person;*
- b) the safety or risk to health of any work, article, substance, plant or machinery, or any condition prevalent on or in any premises; or*
- c) the question of whether any particular standard has been or is being complied with, with respect to any work, article, substance, plant or machinery, or with respect to work or a condition prevalent on or in any premises or respect to any other matter, and by issuing a certificate, stating such findings, to the person to whom the service is rendered.*

3. **FOR WHAT REASON IS AN APPROVED INSPECTION AUTHORITY APPROVED?**

The Department of Labour has deemed it unreasonable to expect the employers or health and safety representatives to be specialists in occupational hygiene, and therefore provision was made for Approved Inspection Authorities to assist them in complying with certain requirements of the Act.

4. **WHAT ARE THE CRITERIA FOR APPROVAL?**

An inspection authority, who has the necessary expertise in the field of occupational hygiene monitoring and has access to the appropriate facilities and equipment, may apply for permission to become an Approved Inspection Authority and thereby perform the prescribed monitoring functions.

The use of the term *monitoring* means more than just measuring an occupational hygiene stress factor. It includes:

- (1) the anticipation and recognition of the adverse health effects which could be caused by or exacerbated in the environment or workplace concerned as a result of exposure to the occupational hygiene stress factors;
- (2) the measurement of prevailing conditions;
- (3) the scientific interpretation of those measurement results;
- (4) the evaluation of the potential impairment of health or well-being; and
- (5) the formulation of recommendations for alleviation of such problems.

Subject to the criteria set out below, approval will be granted to all legal persons excluding persons in their private capacity. The Occupational Hygienist/s applying for approval on behalf of the legal persona will, however, ultimately be responsible and liable for the activities of the Approved Inspection Authority.

Any application for approval will in general be evaluated in terms of the following:

- a) personnel involved in the regulated services of the Approved Inspection Authority must be appropriately certified by the Institute for Occupational Hygienists of Southern Africa (IOHSA) (see Annexure II);
- b) personnel involved in the regulated services of the Approved Inspection Authority must hold a certificate indicating that they have passed an examination on the relevant sections of the Occupational Health and Safety Act and the relevant standards or codes that are incorporated into the Act or Regulations (see paragraph 4.2);
- c) the Approved Inspection Authority must have access to suitable monitoring and analytical equipment pertinent to the service rendered;
- d) the Approved Inspection Authority must have suitably documented and controlled systems, methods and procedures relating to the regulated services they wish to render; and
- e) the format and content of reports for each of the services applied for must meet the requirements of SABS 0259 "General requirements for the competence of calibration and testing laboratories".

4.1 Personnel

The personnel employed by an Approved Inspection Authority must include at least one **Occupational Hygienist** who is in overall control of, and responsible for, all the regulated aspects of the Approved Inspection Authority. In addition they are permitted to carry out initial occupational health risk assessments, walk-through surveys, plan and supervise monitoring surveys, evaluate monitoring results, prepare reports, and recommend appropriate control measures within the ambit of the scope of work for which the Approved Inspection Authority is authorised.

In addition, the Approved Inspection Authority can employ one or more Occupational Hygiene Technologists and/or Assistant Occupational Hygienists.

Occupational Hygiene Technologists may calibrate monitoring equipment, carry out monitoring surveys, take measurements, analyse collected samples and prepare monitoring reports within the ambit of the scope of work for which the Approved Inspection Authority is authorised.

Assistant Occupational Hygienists may carry out similar tasks provided they are under the direct supervision of an Occupational Hygienist.

Auxiliary staff (i.e. administrative staff) not involved in the direct occupational hygiene work laid down in the Act and its associated codes, are not included by this guideline.

The **Occupational Hygienist/s** must:

be registered with the Institute of Occupational Hygienists of Southern Africa (IOHSA) in the occupational hygienist category; and hold a valid Legal Knowledge Certificate. Occupational Hygienists may in addition also perform the duties of an Occupational Hygiene Technologist.

An **Occupational Hygiene Technologist** must:

be registered with IOHSA in at least the technologist category; and hold an approved Legal Knowledge Certificate.

An **Assistant Occupational Hygienist** must:

be registered with IOHSA in the assistant category.

The criteria which IOHSA use for evaluation can be obtained by contacting:

Secretary: OHSAP
P O Box 14402
CLUBVIEW
0014
Tel. (012) 654 8349

4.2 Examination on legislation

The applicant must be in possession of a valid legal knowledge certificate issued by a Technicon in the RSA. This certificate will be awarded to persons who have passed an appropriate examination set on the following topics:

- the Occupational Health and Safety Act;
- the relevant regulations of the Occupational Health and Safety Act;
- the relevant codes of practice and documents incorporated into the Act and regulations; and
- the requirements for approval (i.e. this information brochure).

4.3 Equipment

Approved inspection authorities must be in possession of their own technical equipment (for example sampling and calibration equipment), or be able to prove that they have easy access to such equipment (for example from a rental service). It should be noted that the Approved Inspection Authority will be held responsible for the correct operation and calibration of all equipment used, whether it belongs to them or not. The type of equipment will depend on the approved service to be rendered and the requirements of internationally accepted method of measurement (for example those listed in the NIOSH Manual of Analytical Methods or the UK Health and Safety Executive Methods for the Determination of Hazardous Substances).

An Approved Inspection Authority may make use of non-approved persons to carry out certain functions, but the AIA will have to be capable of verifying that these persons have performed

the functions in accordance with acceptable standards. The Approved Inspection Authority will remain accountable for the entire process of monitoring. i.e. from the planning stage to the reporting thereon. If, for example, the services of an external analytical laboratory are used for analysis of samples, the Approved Inspection Authority will remain accountable for the results obtained. The onus is on the Approved Inspection Authority to ensure that appropriate analytical equipment and facilities are available for the tests required; to establish the competency of the laboratory personnel; and to agree on the quality assurance procedures to be employed before making use of such a laboratory. The Approved Inspection Authority must instruct the laboratory on the specific method of analysis required and the laboratory must certify that the given method was in fact used for the analysis. Any deviation from the method must be recorded and the reason for such deviation must be motivated.

All equipment shall have valid calibration certificates. The Approved Inspection Authority must ensure that all the necessary information regarding the calibration is given by the person calibrating the equipment which includes the information on the equipment being used for calibration purposes. An example of this is in SABS 0182 and SABS 0154, regarding audiometric equipment and the calibration thereof.

A logbook must be kept which contains calibration and maintenance schedules for all equipment.

4.4 Documentation

Approved Inspection Authorities must have updated copies of the following documentation available at all times and the personnel of the Approved Inspection Authority must be familiar with their contents:

- Occupational Health and Safety Act;
- relevant regulations promulgated under the Occupational Health and Safety Act;
- relevant health and safety standards incorporated in the regulations;
- relevant health and safety standards not incorporated into the regulations, which will be used by the Approved Inspection Authority;
- relevant literature relating to occupational hygiene and information on subjects relating to the various services to be offered;
- valid calibration certificates of all instrumentation;
- maintenance schedules of instruments; and
- a documented quality management system which must at least include :
 - * the organisational structure of the Approved Inspection Authority,
 - * the scope of activities,
 - * the responsibilities,
 - * the processes, procedures and resources for implementing quality management based on SABS 0259, and

- * the reports including any verifications issued. All reports must contain the minimum requirements as stipulated in ;
- SABS 0259 as amended: paragraph 13, Certificates and Reports.
- AIA RTM1: Appendix B for reports on asbestos sampling.
- SABS 1164: Standard Method for the Determination of lead.
- Any other code or standard incorporated into the OHS Act or its regulations.

4.5 Format and content of reports

Subject to the requirements stipulated in paragraph 4.4, the following information must be included in all reports:

- the name and signature of the occupational hygienist responsible for the content of the report must be on every page;
- the page number and total pages must appear on every page (e.g. page 10 of 20);
- a diagram of the area if monitoring was carried out, where appropriate;
- if monitoring was not carried out over an eight (8) hour period, the reason has to be stated;
- if monitoring was not carried out on a statistically representative number of employees, the reason must be stated; and
- solutions to any identified risks should be recommended. Where this is not immediately possible, the client must be referred to an appropriate source, person or organisation where a solution may be attainable.

5. PROCEDURES FOR APPROVAL

5.1 Application

Applications for approval must be submitted to the Provincial Office or Labour Centre of the Department of Labour where the Approved Inspection Authority is based.

The application must contain the following:

Personnel

- An organogram showing the personnel, titles, responsibilities and reporting structures in the proposed Approved Inspection Authority;
- valid, up-to-date IOHSA registration certificates for each employee in the proposed Approved Inspection Authority; and

- valid Legal Knowledge Certificates for each employee in the proposed Approved Inspection Authority.

Contact details for every office of the Approved Inspection Authority

- The registered name of the Legal persona;
- physical address;
- postal address;
- telephone number and/or cellular phone number;
- fax number; and
- contact person.

Services to be rendered

- All services which are to be offered must be specified (i.e. asbestos, lead, hazardous chemical substances, noise, lighting, temperature, monitoring of ventilation systems, etc.). *It should be noted that Inspection Authorities with limited services, and those offering a single service could be approved.*

Measuring equipment

- Detailed description and quantities of the equipment to be used for each type of measurement (*where any equipment is not owned by the Approved Inspection Authority, the contact details of the source from which the equipment will be obtained when necessary must also be provided*); and
- copies of calibration certificates as well as calibration and maintenance schedules;

Documentation.

- The methods and procedures used for monitoring and analysis; and
- the contact details and written agreements with any laboratories used for chemical analysis.

5.2 Audit by the Department of Labour

An initial audit will be arranged with the applicant by the appropriate Provincial Office or Labour Centre of the Department of Labour. If the inspector is satisfied that all the requirements are complied with, a recommendation will be forwarded to the Chief Inspector.

It is however the prerogative of the applicant to question the decision of the inspector should the application not be recommended for approval. Such questioning will be dealt with in the Provincial Office. Should the issue not be resolved at Provincial level, the applicant then has the right to appeal to the chief inspector as contemplated in section 35 of the Occupational Health and Safety Act, 1993, (Act No. 85 of 1993).

Inspection authorities will be visited at regular intervals by inspectors of the Department of Labour to determine whether the requirements laid down in SABS 0259 and any other issue pertaining to the operation of the Approved Inspection Authority is being complied with. It is

however the prerogative of the Chief Inspector to withdraw the approval of an inspection authority on recommendation of an inspector.

6. APPROVAL CERTIFICATE

The Chief Inspector may issue an approval certificate for the current year to the applicant. These certificate will reflect an approval number as well as the date of approval and the specific service for which the approval was granted.

The approval certificate will be issued subject to: -

- the application details as outlined in 5.1 above must be updated and re-submitted annually, before the expiry of the current certificate, to the relevant Provincial Office or Labour Centre of the Department of Labour;
- the relevant Provincial Office or Labour Centre of the Department of Labour must be informed forthwith of any change in personnel from those who appear in the application; and
- subject to the provisions of section 35 of the Act, the approval can be withdrawn at any time at the discretion of the Chief Inspector.

7. LIST OF APPROVED INSPECTION AUTHORITIES

A list of current approved inspection authorities will be maintained by the Chief Inspector and distributed to all Provincial Offices and Labour Offices of the Department of Labour. Copies of this list will reflect the name and address, contact details, services approved, initial date of approval and the approval number of each Approved Inspection Authority, can be obtained from these offices.

ANNEXURE I

WHAT IS MEANT BY VERIFICATION?

Where occupational hygiene monitoring is performed by a person other than an Approved Inspection Authority, the employer must ensure that such person's (who is an employee in a workplace under his/her control) ability to perform such monitoring is verified by an Approved Inspection Authority. This is subject to this person being registered with the Institute of Occupational Hygienists of Southern Africa, at least as an Assistant Occupational Hygienist.

Synonyms for verification: *corroboration; authentication; documentation; proof; substantiation; validation;*

Verification is the confirmation of the technical correctness of a methodology and the items which must be verified in occupational hygiene include:

- instrumentation used and its performance (including reference testing);
- calibration procedures and schedules;
- methodology used;
- conformance to the methodology;
- measurement procedures;
- reports and documentation;
- representativeness of samples; and
- accuracy and reproducibility of results.

When an Approved Inspection Authority verifies the monitoring results of a person other than an Approved Inspection Authority, it will be held accountable for such results. This implies that the Approved Inspection Authority could be held liable for such results and could be open to any resulting compensation claims. When verifying monitoring results, the Approved Inspection Authority should be asking "Are the results valid, accurate and correct and can this be proved?"

It therefore stands to reason that an Approved Inspection Authority can only verify a past action/event and not a forthcoming action/event.

ANNEXURE II

IOHSA Application Procedure (*July 2003*)

The Institute of Occupational Hygienists of Southern Africa was set up on the recommendation of the Department of Labour Technical Committee (TC 8) to determine learning standards and qualifications appropriate to occupational hygienists as envisaged in the National Qualifications Framework. The Institute also has a role to play in regulating the professional and ethical standards pertaining to those practicing occupational hygiene. It is intended that, in due course, the South African Qualifications Authority will ratify these standards and qualifications and IOHSA members will receive due recognition of their professional status.

INTERIM CRITERIA FOR REGISTRATION

Curricula have been developed for a set of occupational hygiene training modules and the various educational and training establishments are being encouraged to offer courses meeting these standards. Acceptable courses will be officially recognised by IOHSA but it is likely to take some time before these are widely available. Interim criteria based on education achievement in a Science of Engineering field acceptable to IOHSA and a suitable period of practical experience in the field of occupational hygiene. It is expected that this combination of education and experience will enable occupational hygienists to be slotted into categories equivalent to the NQF levels 5 to 8 at some future stage.

These are as follows:

- Assistant:** Education – Technical/scientific academic background; or
has passed the 8 approved Assistant modules.
- Experience – Working under registered hygienists or engaged in suitable study.
- Typical functions –
Monitoring function (measurement of stresses).
- Technologist:** Education – M + 3 qualification (2 yrs relevant experience can be substituted for each year of formal educational qualification), or
Has passed the required number of approved Technologist modules.
- Experience – 2 yrs relevant experience.
- Typical functions –
Planning of monitoring, evaluation (including interpretation), advising on appropriate control procedures and writing reports on environmental factors.
(The applicant may be involved in only one specialist area of occupational hygiene but he/she will still have to demonstrate an awareness of the wider issues in the field.)
- Hygienist:** Education – M + 4 qualification (2 yrs relevant experience can be substituted for each year of formal educational qualification), or
has passed the required number of approved Hygienist modules.
- Experience – 5 years relevant experience.
- Typical functions –

Design, implementation, evaluation, control and management of occupational hygiene programmes. Management, training and research may also be encompassed.

Fellow: This is a purely status position and is based on peer acceptance. A candidate for admission as an Occupational Hygiene Fellow shall be required:

1. to have been registered by IOHSA as an Occupational Hygienist for at least 5 years; and
2. to have worked in occupational hygiene or one of its specialist branches for more than 15 years; and
3. to have made a distinguished contribution to the advancement of the profession of occupational hygiene; and
4. to be nominated and seconded by two registered Occupational Hygienists.

ENTRANCE EXAMINATION

If an applicant meets the above education/experience requirements a personal interview and, for Technologists level and above, a short written examination will be arranged.

(i) Written examinations

The intention of the written examination is to determine the applicant's general knowledge of occupational hygiene and of his particular field of practice. As such the questions will focus only on those topics that a particular category of hygienist should know and there should therefore be no need for study. There will typically be 5 sections comprising 10 multiple choice questions on topics such as:

Legislation: definitions and understanding from the appropriate Act;
Physical hazards: noise, thermal stresses, radiation, ergonomics, etc.; and
Chemical hazards: exposure measurement techniques, units, health effects etc.; and
Codes of Practice: technical details from codes referred to in legislation; and
Essays: short essays such as – *Describe asbestiform fibres*.

Marks out of 20 for each section will be awarded and the pass mark will be 60 % overall. An Occupational Hygienist will, in addition, be required to achieve at least 50 % in each section.

Applicants holding international professional qualifications in occupational hygiene appropriate to the IOHSA category applied for may, at the discretion of the Examination Board, be exempted from the written examination. Examples of such professional qualifications may include:

- The British Examination Board in Occupational Hygiene (BEBOH) Certificate of Operational Competence in Comprehensive Occupational Hygiene;
- The BEBOH Diploma of Professional Competence in Comprehensive Occupational Hygiene; or
- The American Board of Industrial Hygiene Certified Industrial Hygienist.

(ii) Personal Interview

The personal interview is intended to elicit information on the applicants overall knowledge, abilities and skills. Applicants for Assistant grade will be interviewed but no marks will be awarded and the only criteria against which their suitability will be judged is whether or not they

are studying or working in an occupational hygiene or related field. The interview should last approximately 20 minutes and is structured to be as objective as possible. The interviewers will be evaluating the applicant against the following criteria and marks out of 25 for each section will be awarded:

		<u>Technologist</u>	<u>Hygienist</u>
1.	Knowledge of legal parameters	Measurement, standards and methods	Codes of practice, relevant legislation, international legislation, good practice and trends.
2.	Knowledge of specialist area	As above	As above
3.	Responsibilities	Record keeping	QA/QC, report format, checks on work of assistants and contractors. Advice on control measures.
4.	Contribution to occ. hygiene development	High ethical standards	Presenting papers at national and international conferences. Contributing to the literature. Training and developing technologists and assistants.

Candidates must achieve 70% in the oral examination to pass. Candidates obtaining less than the required pass mark but more than 50% in one or other examination may, at the discretion of the Examination Board, be recommended for a lower grade of membership. The Registration Board of the Occupational Hygiene, Safety and Associated Practitioners (OHSAP) will review and ratify all recommendations of the IOHSA Examination Board.

REGISTRATION

Once applicants have successfully completed the above formalities and have paid the appropriate fees, the OHSAP Board will inform them of the category awarded and place them on the register for the current year.

Any registrant who feels that his/her education or experience has been upgraded sufficiently to warrant a change in categorisation is free to apply for review. The procedure and fee structure will be similar to a new application.

Annual re-registration is currently only dependent on receipt of the annual fee and declaration that the registrant is still actively involved in the occupational hygiene field. It is intended that in the future members will be required to obtain points for various occupational hygiene activities. A certain minimum number of points will have to be accrued over a specified time period in order to maintain registration.

REGISTER

The Secretary will keep a register of members, which will contain the following details for each member:

1. date of registration;
2. grade of membership;
3. summary of academic qualifications;
4. summary of experience in the field of occupational hygiene;

5. written examination mark;
6. formal interview score; and
7. date and result of any upgrade request.

Each member will be entitled to request, and receive within 30 days, a copy of information recorded under his name in the Register. A fee to cover the costs of extracting and sending this information will be set by Council from time to time.

Any member who is dissatisfied with the information recorded under his name in the Register may appeal to the Council. The decision of the Council on the appeal shall be final.

TITLE

Registered Occupational Hygiene Technologists may include the term Occupational Hygiene Technologist (IOHSA) after their name.

Registered Occupational Hygienists may include the term Occupational Hygienist (IOHSA) after their name.

Registered Occupational Hygiene Fellows may include the term Occupational Hygiene Fellow (IOHSA) after their name.

No other terms, wording, abbreviations or acronyms other than those above are permitted. These terms only apply to natural persons and may not be applied to organisations or bodies associated with those persons.

For any additional information please contact:

R Strydom
Secretary: IOHSA
P O Box 14402
CLUBVIEW
0014

Tel: 012-654 8349
E-Mail: raysaf@mweb.co.za

THE POINTS MAINTENANCE SYSTEM OF IOHSA

Members were requested to comment on the proposed Points Maintenance System in the IOHSA Newsletter of October 1995.

The cornerstone of the Maintenance System is based on the process of continually increasing the skills and knowledge base of Occupational Hygiene Practitioners. The System would also ensure that Practitioners keep up to date with technological advancements as well as new developments in Occupational Hygiene.

The Points Maintenance System is based on the American Institute of Occupational Hygiene system.

The proposed system is a “honour” system, which means that each person is responsible for keeping their own records. A certain percentage of members will be sampled at random to be audited each year, although the cycle period is five years.

The proposed System will be implemented with immediate effect. Although a cycle of five years has not elapsed the first four audits will be used as trials.

The most important advantages of the Points Maintenance System are that it will ensure:

- the ongoing competence of Occupational Hygiene Practitioners;
- a stimulus for growth in the Profession;
- that lower trained Practitioners and Practitioners with different qualifications and backgrounds are encouraged to upgrade their skills,

and by doing so IOHSA will fulfill its mission and ultimately its vision.

An outline of the various categories, activities, points and specific remarks are provided on the next page.

IOHSA: POINTS MAINTENANCE SYSTEM

The points maintenance system is an “honour” system. This means that you have to keep your own records. A certain percentage of members are audited each year. If you do not keep record of your points or do not accumulate enough points you automatically forfeit your classification and have to re-apply for registration.

To maintain your registration as a Professional OH, OH, OH Technologist and OH Assistant you have to accumulate 50 points over a five year period, with a maximum of 5 points per category and 15 points per year. Use the page overleaf to keep record of your points.

CATEGORY	ACTIVITY	POINTS	REMARKS
1. Active OH practice	Practice, or lecturing	5 points per year	Six months or more per year
2. Training and education courses	Attendance of courses	0,5 points per day for approved course	In-house staff training will not be considered.
	Attendance of workshops, seminars, etc.	0,5 points per day for approved workshop, seminar etc.	
	Presentations/lectures at workshops, seminars, conferences, etc.	0,5 per hour lecturing approved courses, etc.	
3. Technical/Professional OH Committee	Council attendance	2 per year for attendance	Must attend more than 70 % of meetings
	Sub-committee	1 per year for attendance	Must attend more than 70 % of meeting
4. Professional membership	Membership of OH associations	0,5 per year	Must be a paid-up member
5. Publications	Primary author	4 for peer reviewed articles 3 for peer reviewed articles 1 for other article	Local journals Overseas journals Any journal
	Secondary or other author	1 for peer reviewed articles	
6. Mentorship (Contact secretary for information)	Mentorship Student	3 points per student per year 1 point per year	
7. Examination/Certification	As OH As OH Technologist As OH Assistant	5 4 3	Once off allocation on successful certification of any category of registration.

IOHSA POINTS MAINTENANCE SYSTEM

CYCLE PERIOD: to

NAME:

MEMBERSHIP NUMBER:

MEMBERSHIP GRADE:

I, hereby certify that the information contained in the table below is a true record of my activities during the cycle period.

SIGNATURE:

DATE:

IOHSA POINTS MAINTENANCE RECORD SCHEDULE

[illegible]

DOCUMENTARY EVIDENCE MUST BE KEPT (i.e. RECEIPT FROM COURSES ATTENDED, COPIES OF MEMBERSHIP CERTIFICATES, etc.)

AIAINFBROC/cvv

16/04/2003