



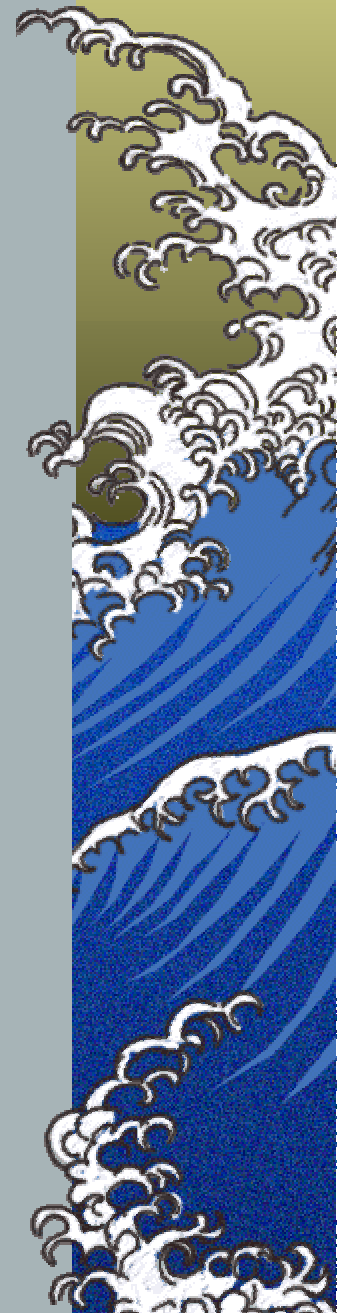
# Regulations for Hazardous Biological Agents

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*PROGRAMMES :O.H.S.*

# Outline

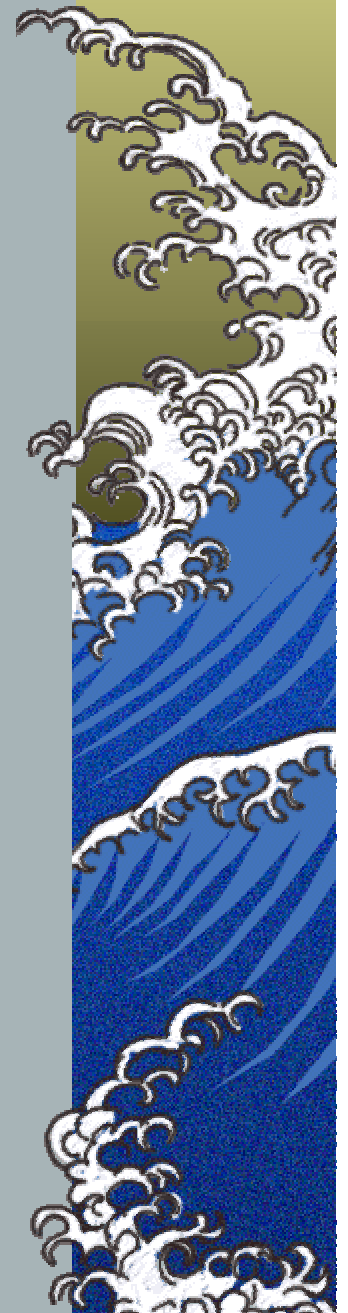
▲ <http://www.gov.za/regulations/index.html#2001>

- ▲ Definition of HBA
- ▲ Scope of the legislation
- ▲ Classification of Agents
- ▲ Information and Training
- ▲ Duties of exposed persons
- ▲ Risk Assessments
- ▲ Exposure Monitoring
- ▲ Medical Surveillance
- ▲ Exposure Control



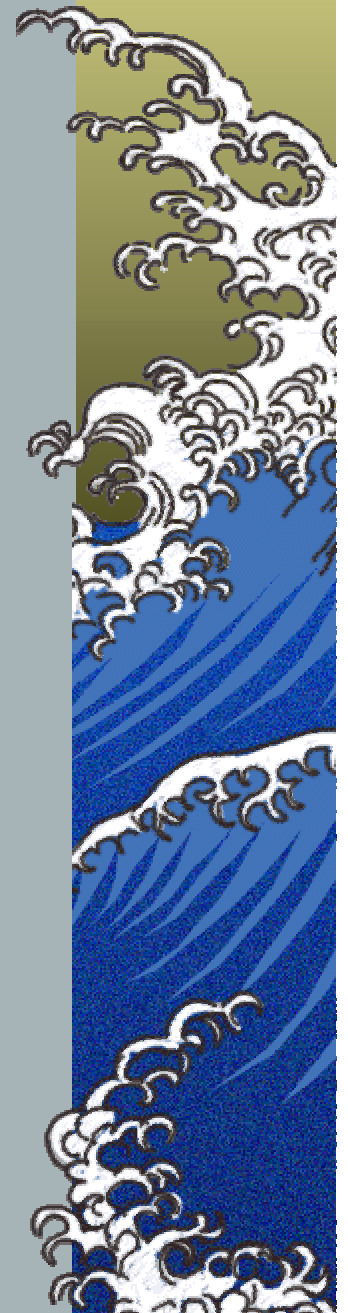
# HBA - Definition

- ▶ Are micro-organisms, pathogens, cells, cell cultures and human endoparasites
- ▶ Have the potential to evoke infectious toxic effects
- ▶ A micro-organism includes all microbiological entities, cellular or non-cellular, capable of replication or of transferring genetic material



# Scope of Legislation

- ▶ Applies to every workplace where:
  - ▶ HBA is produced, processed, handled, stored or transported
  - ▶ an incident which results in exposure during the performance of work occurring in:
    - ▶ food production
    - ▶ animal contact or animal products
    - ▶ health care, including isolation and post-mortem units
    - ▶ clinical, veterinary and diagnostic labs
    - ▶ sewerage purification installations
    - ▶ general workplace



# HBA Classification

- ▶ Group 1: Unlikely to cause human disease
- ▶ Group 2: Can cause disease, unlikely for community spread, treatment/ prophylaxis available
- ▶ Group 3: Severe disease, risk of community spread, treatment available
- ▶ Group 4: Severe disease, high risk of community spread, NO treatment available
- ▶ Annexure to regulations



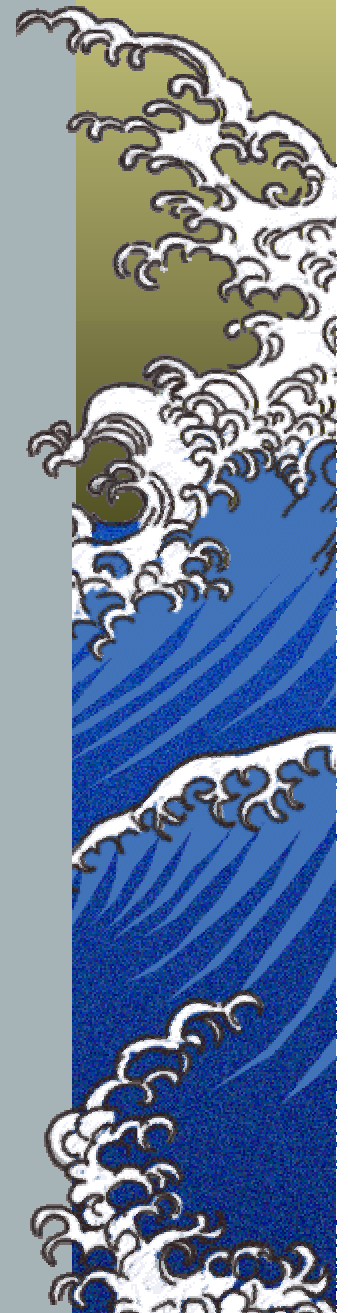
# Information & Training

- ▶ contents of regulations
- ▶ risks of exposure
- ▶ protective measures by employer
- ▶ importance of personal hygiene and housekeeping
- ▶ precautions to be taken by employee
- ▶ necessity and maintenance of controls
- ▶ necessity of medical surveillance
- ▶ procedures of use, handling, storage, labelling and disposal
- ▶ incident and accident procedures
- ▶ potential exposure risk to human reproduction



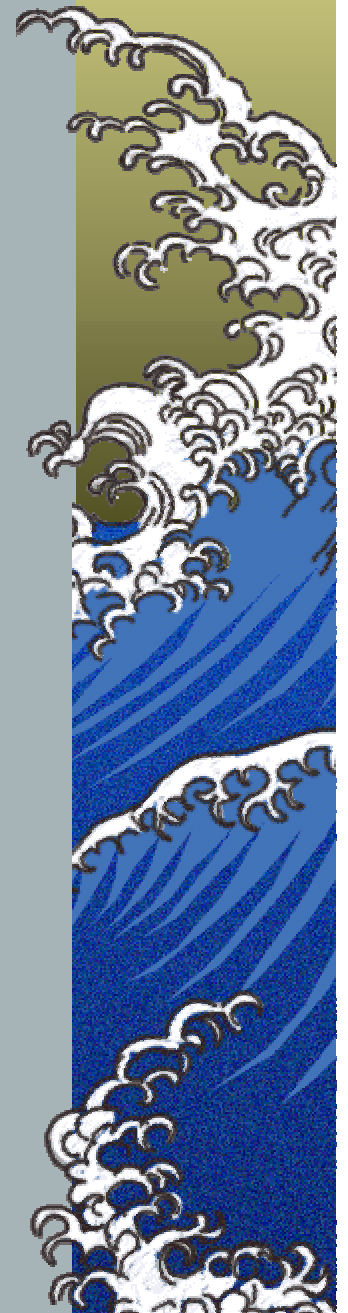
# Information & Training

- ▶ Instructions on incident management provided in writing to drivers
- ▶ Ensure that all employees
  - ▶ have information;
  - ▶ has undergone sufficient training



# Duties of exposed persons

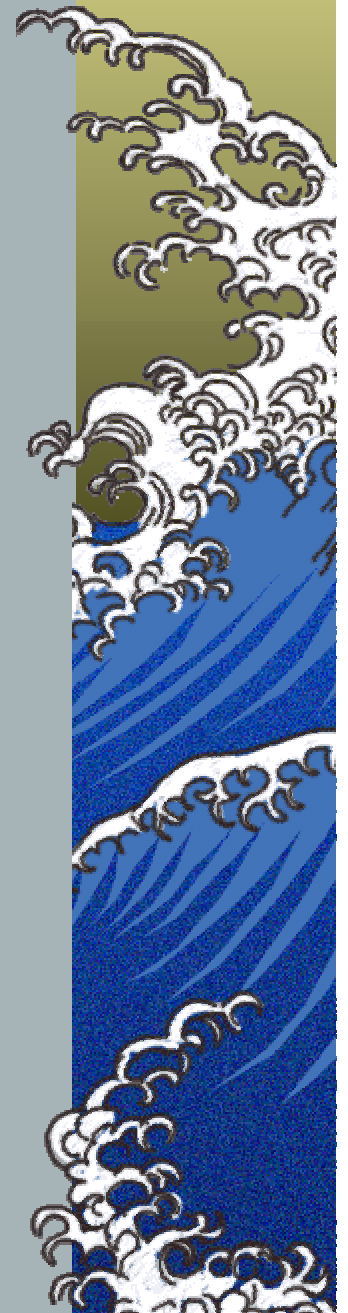
- ▶ Obey instructions:
  - ▶ prevention of uncontrolled release of HBA
  - ▶ housekeeping, hygiene practices, health policies
  - ▶ wear PPE as prescribed
  - ▶ wear personal samplers to monitor exposure
  - ▶ disposal, disinfection of material and sites
  - ▶ reporting for medical surveillance
  - ▶ undergone training
- ▶ Report accidental exposures





# Risk Assessments

- ▶ Regulations do not stipulate that these need to be done by an AIA
- ▶ To be conducted immediately and at intervals not exceeding two years
  - ▶ if previous RA is no longer valid
  - ▶ change in process or methods
- ▶ Done in consultation with H&S Representatives and Committees
- ▶ Records of assessments to be kept



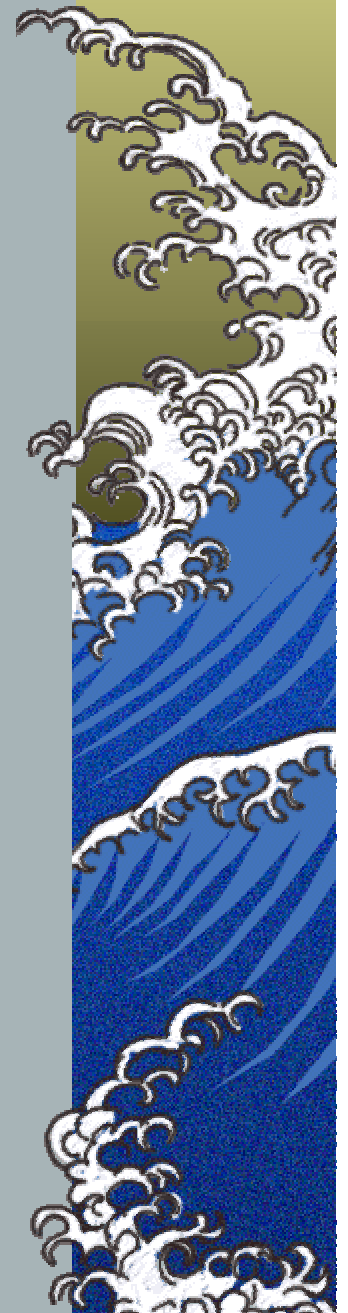
# Information from RA

- ▶ Nature, dose and route of exposure of HBA
- ▶ Location and physical form of HBA
- ▶ Nature of work, process and possible deterioration or failure of controls
- ▶ Effects of exposure on employee
- ▶ Period of exposure to HBA



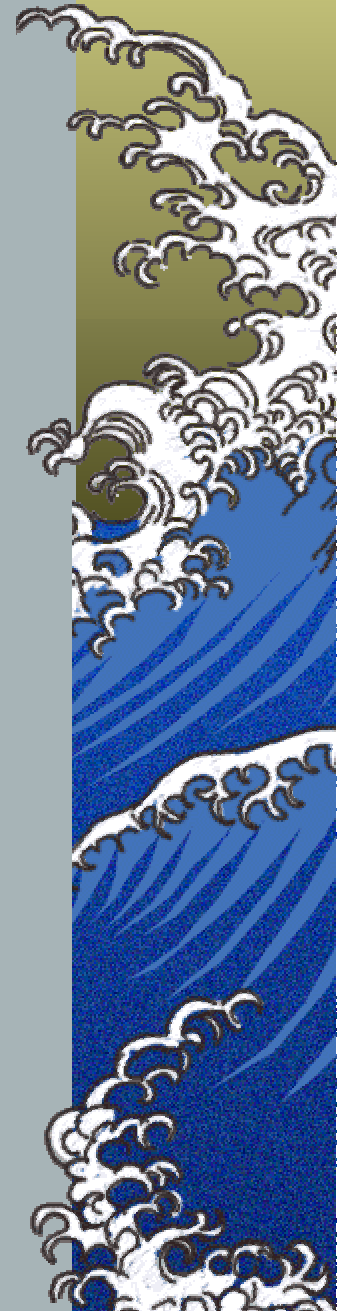
# Informational Basis of RA

- ▶ Classification into risk group
- ▶ Recommendations of control measures by manufacturer, supplier or competent persons regarding controls
- ▶ Diseases that may be contracted
- ▶ Potential allergic and toxic effects
- ▶ Aggravation of existing diseases



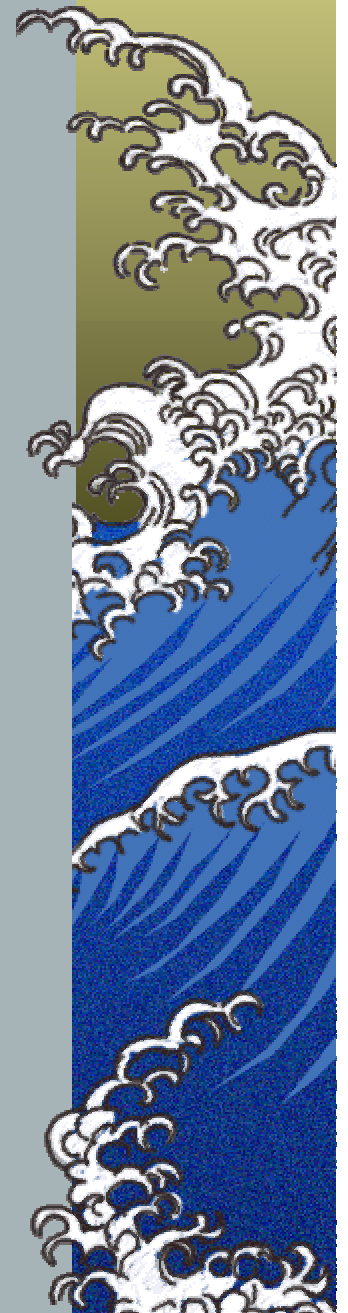
# Exposure Monitoring

- ▲ Use of a procedure which is:
  - ▲ standardised,
  - ▲ sufficiently sensitive
  - ▲ proven effectiveness
- ▲ Monitoring done for:
  - ▲ ensuring maintenance of controls
  - ▲ protecting health of employees



# Medical Surveillance: Reasons

- ▶ RA indicates exposure
- ▶ Exposure may result in:
  - ▶ identifiable disease
  - ▶ effect may occur under conditions of work
- ▶ Techniques available for detecting sensitisation or inflammatory response
- ▶ Recommendation by OHP, ratified by OMP



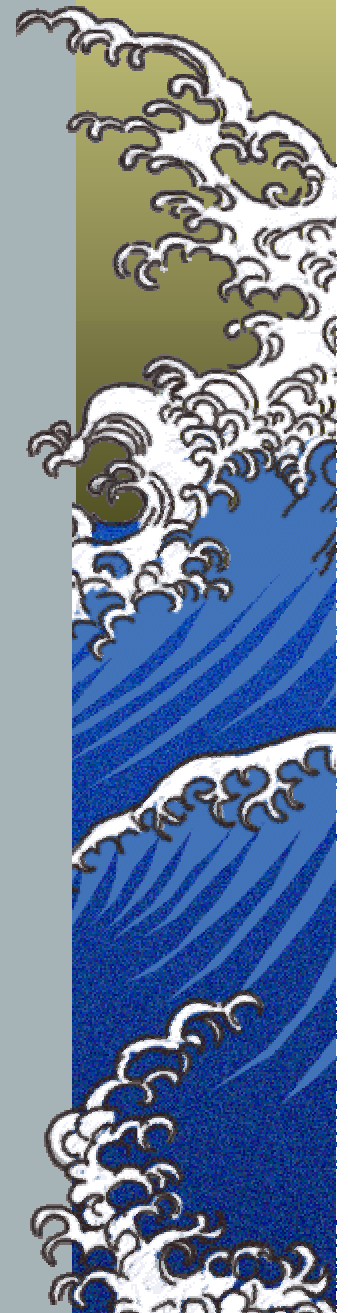
# Medical Surveillance: Initial

- ▶ Employee counselling and education
- ▶ Initial health evaluation
  - ▶ by an OHP, before or 14 days within employment
  - ▶ includes:
    - ▶ medical and occupational history
    - ▶ physical examination
    - ▶ appropriate biological and other tests



# Medical Surveillance: Periodic

- ▶ In cases where and HBA can cause persistent or latent infections, which
  - ▶ not diagnosable until signs develop
  - ▶ have long incubation periods
  - ▶ serious long term effects



# Medical Surveillance: General

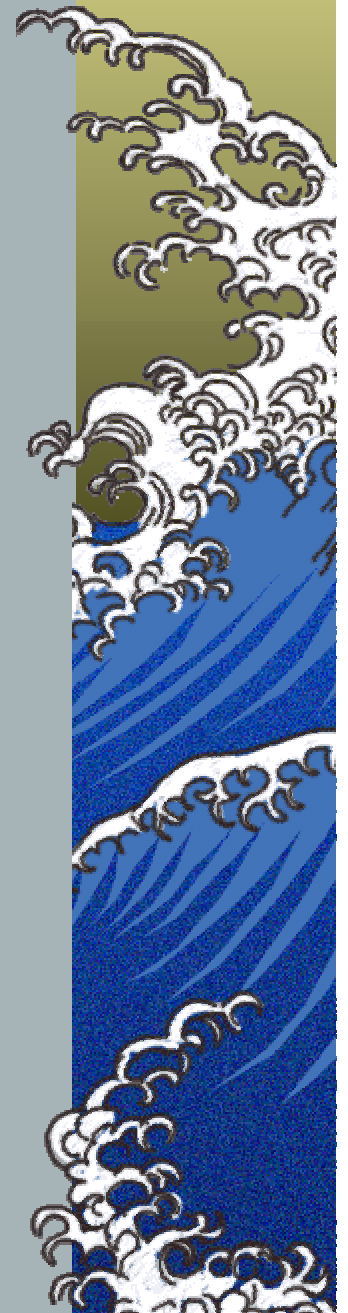
- ▶ Must have a written medical protocol
- ▶ Investigate and record all incidents resulting in infection or death
- ▶ OHP's must submit to H&S Committees for approval, written procedures for dealing with abnormal results





# Exposure Control

- ▶ Responsibility to PREVENT exposure
- ▶ If not, adequate CONTROL
- ▶ Standard procedures to reduce risk of transmission
- ▶ Adopt appropriate measures:
  - ▶ limit amount of HBA used
  - ▶ restrict number of exposed employees
  - ▶ introduce engineering controls
  - ▶ have appropriate work procedures



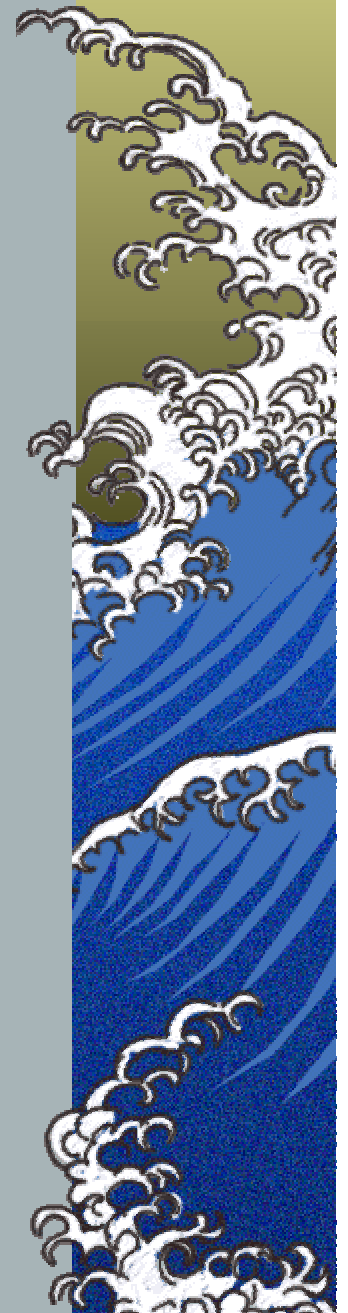
# Personal Protective Equipment

- Only if previous control measures not practicable
- Respiratory protection and clothing for airborne HBAs
- Impermeable PPE for skin absorbed HBA
- A basic Respiratory Protection programme for airborne agents
- Procedures for use, cleaning and storage of PPE



# Other measures

- ▶ Labelling, packaging, transport and storage
- ▶ Special measures for isolation facilities
- ▶ Special measures for laboratories, animal rooms and industrial processes
- ▶ Disposal of HBA
- ▶ Records



**THE END .**

★ THANK YOU.

