

The Health Assessment:

This is conducted by a medical practitioner, or an "approved person" (usually an occupational nurse, or minesite first aider).

The health assessment is divided into sections:

- Section I - detailed work history and information on usual occupation
- Section II - respiratory questionnaire, based on the MRC questionnaire. Asking for information on cough and phlegm, breathlessness, wheezing and past respiratory illness. Smoking history is also required.
- Section III - height, age, ethnicity, lung function (spirometry), with the aim of creating a Western Australian database for "normal" distributions.
- Section IV - audiometric test, measuring each ear over frequencies from 0.5 to 8.0KHz
- Section V - chest x-ray (designated work categories only). This is defined in the Approved Procedures and includes underground mining jobs, "dusty" jobs on the surface and specialised non-mining categories (sand blasting, foundry work, asbestos exposure).

All the chest x-rays are read by one person (a 'B' reader) who has worked for the Perth Chest Clinic for many years.

Section VI - Mines Occupational Physician comments, allowing individualised review.

The program under the Mines Safety and Inspection Act (1994) and its attendant Regulations, (1995) allows for:

1. An initial health assessment, within three months of commencing as a new employee within the mining industry of Western Australia (therefore it is not a "certificate" for employment), or for an employee already in the industry within 2 years of proclamation of the regulations (8/12/95).
2. A periodic health assessment to be done 5 yearly.

The practicality of conducting the health assessments was considered, and there was persuasive argument for remote mine sites and country centers to conduct these locally (rather than only in metropolitan centers). The difficulty this caused was the lack of ready access to doctors who in the normal course of events, would be expected to conduct these health assessments. As a result the concept of an 'approved person' was introduced.

An 'approved person' was an Occupational Health Nurse, or "Paramedic" who was trained to conduct the health assessment (the respiratory questionnaire, spirometry, audiometry). Guidelines were issued by the Department to ensure consistency, for all conducting these health assessments. Training includes a four hour course conducted by a respiratory physician and his lung function laboratory. A "Reaccreditation" course of two hours is then done two yearly to ensure ongoing proficiency in these 'approved persons'.

The health assessments, when filled in, are sent to the Department and if complete, generate a credit card sized card indicating attendance and a unique Mines Health Registration Number for each individual mine employee. It is important to remember that these cards are not a "certificate to work". They merely inform the individual, the employer and the Departmental inspectorate that the health surveillance procedure has been completed, and the data set is complete.

During the discussions on the contents of any health surveillance program concern was voiced on the possibility of other medical conditions that could be an issue, in the future.

Accordingly, two further regulations were formulated, and included the capacity to introduce additional health assessments if deemed necessary and biological monitoring. Additional health assessments would occur in the event that a concern was raised by any sector of the commu-

nity, medical practitioners, the Departmental inspectorate, the industry, the employees, or if identified in the medical literature. The assessment examination would be reviewed and validated, and if appropriate introduced. These could include specific screening for an intense project period of one, two or three years, or a longer term surveillance period, according to the disease of concern. Also, a subset of health surveillance was incorporated into the regulations, allowing the State Mining Engineer to direct that biological monitoring be conducted, when considered necessary, after advice.

The regulations require that the principal employer and each employer at a mine must ensure that biological monitoring is carried out in respect of employees who engage in specified occupational exposure work at the mine, where there is a valid biological monitoring procedure and a reasonable likelihood that accepted values might be exceeded.

The Department has specific guidelines for biological monitoring and includes monitoring for lead, arsenic, nickel and thorium when considered necessary.

Continuing debate regarding the program, resulted in a number of mine employees being exempted from health surveillance. These include those who normally worked in an office, administration building, residential facility or recreational facility, where there is no significant exposure to hazardous substances.

Additionally those contractors (employee or self employed), who are only occasionally on a minesite, not exceeding one month at a time, or cumulatively three months in a twelve month period, do not require health surveillance.

A software program (MINEHEALTH) was developed under contract for collecting, storing and managing the data acquired from the health assessments and forms one element of a number of databases collecting information on each mine employee, their work history, their workplace exposures (CONTAM), their injury details (AXTAT), along with their employer location.

Context Diagram

