Estimation of substance exposure for new industrial processes

Description:

◆ A knowledge based system to support occupational hygienists
  ◆ When a new industrial process is developed, occupational hygienists must assess how toxic the substance is and how likely workers are to be exposed to it.
  ◆ EASE supports the latter task.
◆ Key factors include:
  ◆ Pattern of control: e.g. closed system.
  ◆ Whether a closed system is ever breached e.g. for cleaning.

Technical approach:

◆ Initial prototype developed by UK Health & Safety Laboratories.
◆ AIAI and HSL staff collaborated in developing new system:
  ◆ HSL staff trained in AI techniques.
  ◆ Used the CommonKADS methodology for modelling knowledge.
  ◆ Used CLIPS and wxCLIPS (AIAI product) for software.
  ◆ Success through technology transfer and knowledge modelling.

Benefits:

◆ Highlights potentially dangerous situations that may be neglected.
◆ Easier method of enforcing health & safety guidelines.
◆ Easier to update than paper manuals.
◆ Has been taken up by regulatory agencies around Europe.

AIAI and the Health & Safety Laboratory
http://www.aiai.ed.ac.uk/project/ease/