



## **IISAFE™ OPERATIONAL ANALYSIS AND CONTROL DATABASE**

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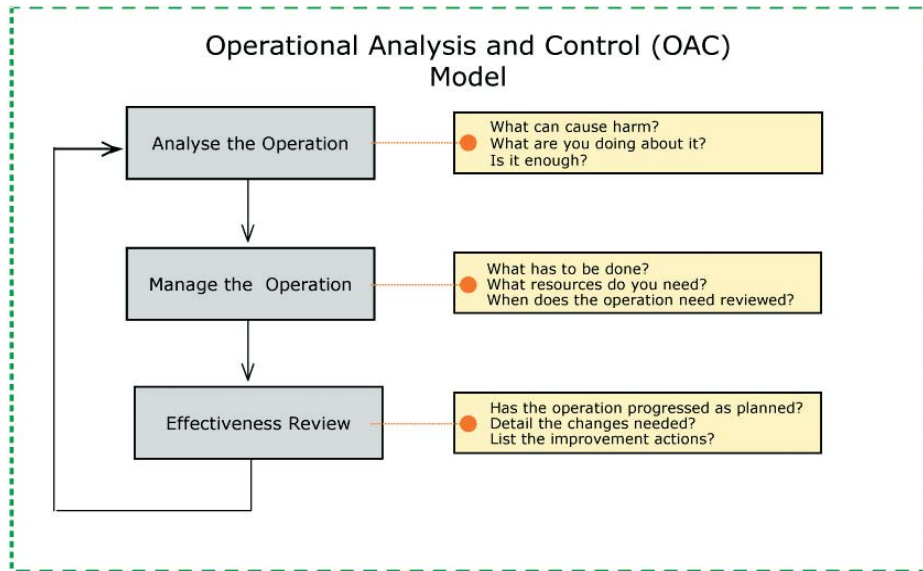
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### **A description of the prevention product**

Technologically and intellectually we have the capability to prevent accidents.

Operational Analysis and Control is an approach to safety that ensures that work operations are carried out in strict accordance with all relevant 'safe working' procedures. It advocates that those who are involved in the project at whatever stage, will have a contribution to make to the elimination/control of hazards (i.e. those factors that will negatively impact upon any element of the project, not just the safety). It does not advocate the minimisation of risk, as this perception of safety accepts the possibility of accidents and hopes that they will be of sufficient low probability that they will not occur. It aims to ensure that people, plant and property are protected from harm prior to, during and after the work operation, regardless of the nature of the hazards faced.

It is an approach that is based on a wide range of outcomes, including quality, quantity, cost effectiveness of production, safety of operators, safety of customers, environmental issues, profitability etc. It requires that workers and managers conduct an analysis of the whole operation and being cognisant of what could harm the successful achievement of the project objectives, develop and implement a set of controls that will ensure success.



Though simple in outline, it is not a simple process. It requires technical skill and competency at all levels to ensure success. It was therefore necessary to develop appropriate tools that would assist in the making of the right decisions for the completion of work tasks. The OAC database has been developed to assist workers and managers in the construction industry carry out effective assessments of their operations and implement appropriate controls, (Articles 1 & 2). Underpinning the toolkits is the notion that construction projects should be designed, built, maintained and eventually demolished in a manner that does not cause harm to the construction personnel, maintenance operatives, end users and demolition specialists.

The OAC database has been designed to facilitate:

- Assessors begin the process by detailing the Project Tasks, including the objectives that have been established.
- Tasks are then analysed and the range of operations necessary to achieve completion identified. Within each operation the assessor identifies all the hazards. To facilitate this part, the database is populated with over 60 of the keys hazards common to most construction sites. Via a hyperlink to the Expert Ease International website, assessors access up-to date information on these and other hazards.

- Having identified the hazards, each can be selected in turn by the assessor in order to prepare the measures necessary to eliminate or control the hazard. They are presented with a generic set of control measures that include Safe Working Methods, descriptions of guards, PPE, working procedures, training and instructions. These are offered as a starting point for the development of appropriate controls and assessors are advised that they must make these controls specific and appropriate to their particular situation. The hyperlink to the EEI website will allow them to obtain further information on appropriate controls as well as connecting them to statutory safety body relevant to their country.
- Having completed all the assessments a full document detailing all the hazards and controls can be printed out.
- The database contains a number of other functions:
  - Contractors and sub-contractor details may be added and attached to the relevant assessments on which they will be working.
  - Review and project completion dates can be established and the database will advise when these are due.
  - Objectives, including safety objectives can be established for projects, tasks and individual operations that will be included on the printed reports.
- There is no limit to the number of assessments that can be carried out and stored in the database.

The database has also a networked version for larger companies working on multiple sites. This version is accessible over the company's intra-net system, and may be pre-populated with company specific data. Though the sample database provided in this package is in English, it is also available in other language versions (Article 4).

The OAC is supported by a complete suite of products and toolkits that will facilitate companies develop their safety systems from scratch or improve their existing systems (e.g. Internet training programs such as Manage safely – Work safety can be accessed at <http://www.confinedspaces.com/oac/index.htm>) This is particularly useful for small and medium sized enterprises that may have more limited resources (Articles 1, 2 & 4). The database is particularly beneficial to this size of business as it is easy to use, can be run from a lap-top and can store all assessments and help conduct new ones on site immediately.

Companies can try out the database by downloading a demonstration version from <http://www.web-safety.com/oacdb1/>.

Related to this database is a Chemical Safety Analysis and Control Database that allows companies conduct risk assessments of all harmful substances used. This database is currently compliant with European standards and will shortly be available in a USA compliant version.

The OAC approach to safety has been utilised fully by Roads Service in N. Ireland for the past six years with targeted improvements being exceeded year on year. Currently accidents have been reduced to 33% of the pre-OAC period, and with continued training and management of the system this trend will continue. (See the case study for more details).

The concept and product are suitable for implementation in all construction industries regardless of the size. As it is based on global best practice, it is also useable across the world. With companies who are working in a number of countries, it provides essential uniformity in their approach to safety (Article 4).

It is designed to be integral to the work process returning much of the control of safety to those who carryout the work and their line managers. In this way safety management will not be an additional extra financial burden on a company prone to axing whenever monetary restrictions are required.

The database and the system provide tools for ensuring consistent safe outcomes to all work operations. Its effectiveness is dependent upon the user of the system. Combining competence, effective controls and proper implementation, all work operations can be guaranteed safe before commencement.