

The industrial estate: an eventful place



Toulouse, France, 2001
Impact on-site and off-site



Bangkok, Thailand, 2001
Chemical transport risks



Safer industrial processes mean lower risks



Rayong, Thailand, 2001
Coordination of emergency response



Dalian, China
Emergency preparedness means lower impact from accident



UNEP DTIE
Division of Technology, Industry and Economics



Industrial estates throughout the world include companies that handle and use chemicals which are a potential hazard, both to other tenant companies and to neighbouring communities. Dramatic events have shown just how much damage accidents can cause if appropriate provisions are not in place.

Industrial estates need to make provision for accidents and unplanned releases of chemicals in the same way that their companies have introduced safety and health programmes.

APELL is a proven process that prepares for potentially serious accidents and creates a coordinated emergency response capability for all aspects of industrial disasters.

The **APELL** process brings economic and public-relations benefits as well as ensuring public safety and environmental quality.

Why APELL

Immediate benefits of an APELL programme are:

- *efficient handling of any accident before it becomes too big (and expensive)*
- *good public relations with neighbouring communities and confidence in the estate management*
- *reassurance of potential investors: safety and health matters are well managed thus protecting the investors' image, business assets and employees*
- *a useful mechanism to discuss client companies' concerns (the APELL process can also be used to resolve other multi-stakeholder issues)*
- *an effective emergency service that can call on the resources and expertise of member companies and avoid costly duplication of equipment that is rarely used*
- *confidence-building with local authorities: safety and environmental problems are well managed, and safety compliance measures are in place*

"... APELL is a "hands on" tool, pragmatic and practical to use, especially in developing countries."

- Marcelo Kos Silveira Campos,
Brazil ABIQUIM

"The APELL Programme is the key to making all stakeholders aware of industrial risks and ready to mitigate the adverse effects of a major accident. One of the most important aspects of APELL is that it takes account of the whole community, local authorities and industrial interest."

Nestor Sposito, Expert at Dow Chemical, Argentina

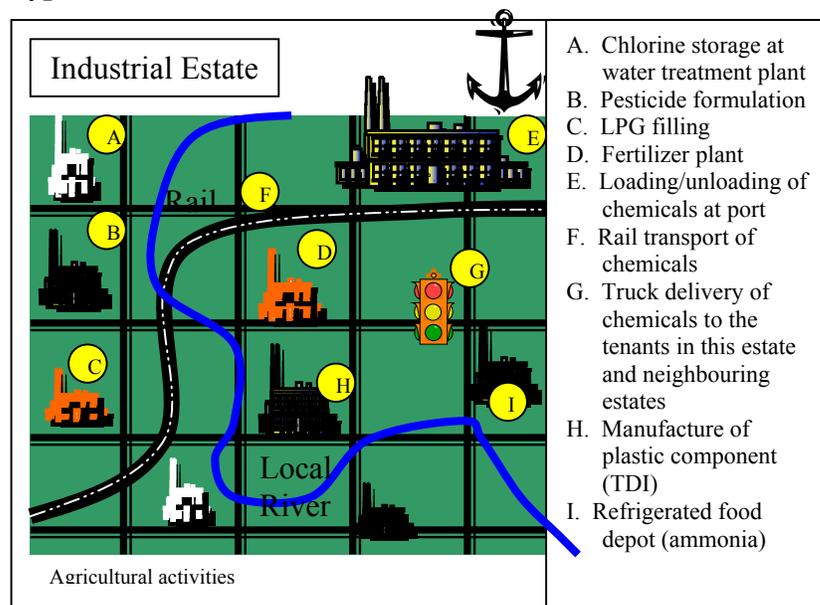
Industrial accidents lead to loss of life and productivity, cause down-time of processes and damage infrastructure, sometimes even beyond the site where the accident occurs. In an industrial estate, an accident at one company often interferes with the functioning of other plants in the estate.

Public reaction to accidents or emissions can be a serious problem for estate management. Adverse publicity also reduces the attractiveness of an estate, as investors are anxious to maintain a good international profile.

Even if no lives are lost, environmental damage from an industrial accident often has serious political repercussions.

Even the best managed estates need an effective emergency service that can address chemical hazards as well as normal fires. This should be linked with companies' on-site response systems and with public health and rescue services in the community.

Typical sources of hazards on an industrial estate



Two benefits of an APELL programme to estates:

1. The estate becomes a safe and clean area with a low accident rate and no major disasters on the site.
2. Industry and outside communities are confident because an effective system of emergency response exists to protect them, just in case.

"APELL helps estate management to develop a strong bond between the tenants, management, and the community. These stakeholders therefore WORK TOGETHER with a common understanding of the risks and responsibilities. They are therefore capable of dealing successfully with many issues jointly and immediately!"

- Kasemsri Homchean, manager of Map Ta Phut Industrial Estate Thailand

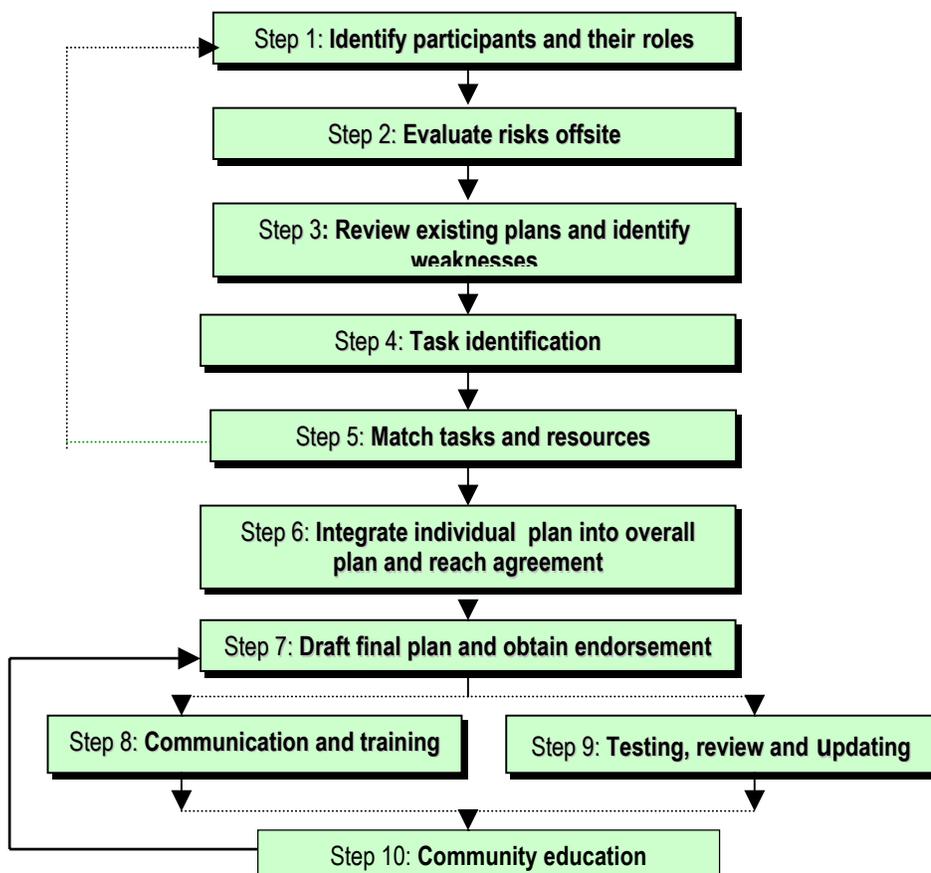
How does APELL work?

APELL provides estate managers with the information and decision-making structure they need to address any hazards in and around the estate, and to take effective remedial action.

Key aspects of the APELL process are:

- A senior estate official is designated to take the initiative on emergency preparedness and response.
- A Co-ordinating Group is created to discuss possible hazards and remedial actions. The Co-ordinating Group includes all key stakeholders who may experience an accident and/or those who could be affected.
- Consideration and adaptation by the Co-ordinating Group of the 10-step programme recommended in the APELL procedure. These steps are implemented by various organizations identified by the Group. Identification and mapping of potential hazards in the estate are also essential steps.
- Monitoring of risk reduction measures introduced and assessment of the increased safety that has resulted.

The ten-step process



“Who is involved in the APELL process?”

Estate managers

- taking the lead on APELL
- managing the hazard study
- monitoring transport and storage
- creating an emergency service
- providing public information
- linking with outside authorities

Government authorities

- implementing safe storage and transport laws
- granting permits for safe estates
- establishing public rescue services
- ensuring safe land zoning
- monitoring environment quality

Industry tenants

- cooperating in the APELL process
- Implementing individual risk reduction measures
- adapting safe product design and production processes and providing guidance for chemical transporters
- linking rescue services with other tenants and public rescue services
- providing effective public communication in an accident
- establishing buffer zones around plant
- sharing of risk information with neighbouring industries and nearby community

Public rescue services

- cooperating in the APELL process
- providing equipment and training
- linking with tenants' rescue services
- arranging traffic management
- establishing communication channels with public during accident

Community

- cooperating in the APELL process
- knowing alarm signals
- knowing any risk locations in the estate
- following evacuation plans
- knowing who to contact in case of accident
- connecting to appropriate news services for an accident
- knowing the possible development of an accident

Resources to implement APELL

Since inception of APELL, in 1988, agencies, associations and individuals have assembled a broad set of information systems, references and tools to allow local partners anywhere to easily implement the APELL process in their locality. Managers can also draw on the experience of leading companies in their estates to start APELL. Many international companies already have experience with similar processes in other locations—for example, under Responsible Care.

Safety and emergency preparedness also depend on a national system of disaster response and chemicals management: the appropriate authorities should be consulted at an early stage.

Some important APELL manuals and guidebooks that will allow managers to become better informed are shown on this page. A great deal of additional information and copies of documents are also available, free of charge, from the APELL website managed by UNEP: www.uneptie.org/pc/apell Further advice and assistance are available from UNEP (contact address below) or from national APELL experts.

Some background to APELL as an international programme

UNEP's role in promoting APELL in Industrial Estates is to act as a catalyst for the development and implementation of strategies and approaches for sustainable development.

Many organisations and individuals have contributed to make APELL function. The assistance of the International Council of Chemicals Associations (ICCA) and the US Environmental Protection Agency (EPA) has been vital to promote the programme in many countries around the world. Actually, the guiding principles of the APELL process are practised in the CAER (Community Awareness and Emergency Response) programme in the United States and Canada. The Swedish Rescue Services Agency was instrumental in helping to produce several key APELL guideline documents. Other organisations who contributed can be found on the APELL website.

Further information from:



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