







## **Company Training Course**

Session 11: Chemical Control Action Plans











1966 - 2010

## Developing a Chemical Control Action Plan – Identifying Risk Reduction Actions –

- Identification of risk reduction actions is an exercise that should involve relevant stakeholders, namely the people who:
  - ...are supplying a chemical company with its raw materials;
  - ...are directly involved in handling the chemicals;
  - ...will be the end users of the chemicals
  - ...are not directly handling the chemicals but may be affected by the hazards posed by the chemicals.













## Developing a Chemical Control Action Plan – Identifying Risk Reduction Actions –

- Actions should be budgeted by calculating the expected costs associated with implementation of each action, taking into account:
  - investment costs;
  - maintenance/periodical costs; and
  - labor costs.
- Expected savings should also be clearly identified, as they will help to sustain the rationale behind each proposed action
- Accurate budgeting is essential for getting endorsement from top management













- Gather the outputs developed from applying other tools during this course (namely the Legal Register, Process Flow Diagram, Risk Analysis, Hazards Hotspots Map, List of Relevant Stakeholders)
- Address burning issues such as the most relevant hazards (with the highest risk factor) and Identify possible risk reduction actions by using the ISP checklist
- 3. List the actions identified per each hazard on a table
- 4. Budget each action being proposed. Try to identify expected costs and savings for each action (one time capital cost, and ongoing operating cost per year, one time capital saving, and ongoing operating saving per year)
- 5. Calculate the return on the investment by subtracting one time savings from one time costs (the capital investment), subtracting ongoing costs from ongoing savings (the impact on annual operating cost), and finally dividing capital investment by impact on annual operating cost (thus getting the years to return on investment)











- 6. For each action identified and listed, define clear and realistic objectives and targets
- Clearly indicate the anticipated improvement or benefit in terms of risk reduction
- Assign responsibilities. Identify the organizational functions that should be responsible for taking action and monitoring the results
- Set-out time-frames and deadlines. Consider realistic time-frames taking into account:
  - time for implementation;
  - overlapping activities;
  - resource conflicts:
  - preceding actions;
  - linked actions;
  - and other similar constraints







