Surviving an Environmental Crisis on Campus

A Technical College System (TCS) Guide
Crisis [ˈkrɪsis]
NOUN

1. A time of intense difficulty, trouble, or danger:
2. A time when a difficult or important decision must be made:
3. The turning point of a disease when an important change takes place, indicating either recovery or death.
Types of Environmental Crisis on Campus

- Large oil spill
- Fire
- Natural gas leak
- Chemical spill or chemical reaction
- Carbon monoxide release
- Methane release
- Mercury release
- Lead release
- Acid spill
- X-ray
- Boilers
Did You Know

- The average college has over 10,000 chemicals, many are considered hazardous under State and Federal law
- Many hazardous materials are subject to emergency planning under Federal rule
- Planning is the key to survival
- The next few slides will present the basics of emergency planning
The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 was created to help communities plan for chemical emergencies. It also requires industry to report on the storage, use and releases of hazardous substances to federal, state, and local governments. The EPCRA rule requires state and local governments, and Indian tribes to prepare their community for potential risks.

EPCRA was inspired by an environmental disaster that took place in India. The Bhopal disaster (or Bhopal gas tragedy) was an industrial disaster that took place at a Union Carbide (American company) pesticide plant in the city of Bhopal, India. On 3 December 1984, the plant released 42 tonnes of toxic methyl isocyanate (MIC) gas, exposing more than 500,000 people to toxic gases. A government affidavit in 2006 stated that the leak caused 558,125 injuries, including 38,478 temporary partial injuries and approximately 3,900 severely and permanently disabling injuries. Over 16,000 people died as a result of this release.
How Do I Know if I Have Hazardous Materials at my Campus?

- Start with Safety Data Sheets (SDS)
- Look for chemicals that are designated as SARA Title III Section 302, 304, 311/312 or 313
- Section 302 chemicals are known as Extremely Hazardous Substances
- Section 304 chemicals are subject to State and Federal reporting
- Section 311/312 are subject to hazardous materials reporting
- Section 313 chemicals subject to Toxic Inventory Report (TRI) filing
Section 302 – Extremely Hazardous Substances

- There are several hundred chemicals that are defined as EHS.
- The EHS chemical have specific Threshold Planning Quantities (TPQ).
- If an EHS chemical exceeds a TPQ, the user of the chemical is required to create an emergency plan for its accidental release.
- Planning will involve working with the Local Emergency Planning Committee (LEPC) and the State Emergency Regional Coordinator.
- EHS chemicals that might exist at a TCS campus include; sulfuric acid within batteries, anhydrous ammonia, many lab chemicals.
Section 311/312 – Hazardous Material Inventory Reporting

- Several thousand chemicals are listed under Section 311/312
- The 311/312 chemical have specific Threshold Planning Quantities (TPQ)
- If a EHS chemical have specific Threshold Planning Quantities (TPQ)
- If an EHS chemical exceeds a TPQ, the user of the chemical is required to report the quantities of chemicals on site, and where they are stored
- Section 311/312 chemicals that might exist at a TCS campus include; petroleum, salt, lead and sulfuric acid in batteries, lead from gun range filters
Section 304 – Emergency Release Notification Requirements

- Sara Title III Section 304 - Governs emergency notification of a release
- Facilities which have chemicals that are subject to SARA 304 and have a release above Reportable Quantities (RQ) must not only notify the local regulatory agency, they must also notify the United States Coast Guard National Response Center (NRC) for a release greater than the TPQ
Section 313 – Toxic Release Inventory (TRI) Reporting

- Facilities that operate under the Standard Industrial Classification (SIC) code that begins with the two digit number 10 though 42 are subject to this rule.
- Technical colleges usually operate under SIC 8222 - Junior Colleges and Technical Institutes
- Technical colleges are not required to report under SARA Title III Section 313
40 CFR Part 112
Spill Prevention Control and Countermeasure Planning

- Under the rule, oil and oil containing substances stored in 55-gallon containers or greater capacity, in which the cumulative capacity exceeds 1,320 gallons, must prepare and maintain a Spill Prevention Control and Countermeasures (SPCC) plan.
- The SPCC has requirements for evaluating spill containment, training, maintenance and upkeep of the plan, notifications and several important factors.
- An SPCC is a very important part of safety and planning at a TCS campus.
Conclusion

- Under SARA Title III, Technical Colleges have mandatory environmental emergency management and planning requirements
Know your Campus/Know your Limits

- Many campus EHS personnel have multiple responsibilities including environmental, health, safety, security, maintenance and construction
- Many EHS personnel also have multiple campus responsibilities
- Challenges EHS personnel face include:
  - Controlling chemicals that come on-site
  - Educating TCS employees on the safe storage and disposal of hazardous materials
  - Educating TCS employees on emergency response
  - Training TCS employees on emergency response
  - Annual filings for WDNR and State Emergency Planning
Ten World Environmental Crises

- https://www.youtube.com/watch?v=PcLrH2eIOWI
What Do All These Disasters Have in Common?
1) Man Made
2) Failure of Imagination
3) “Hope for the Best” Mentality
All of These Disasters Were Avoidable

- All instances required either permits or planning that was not properly executed
- Most instances required training that was not properly performed
- Corner cutting was prevalent
- Locals were ill-equipped to respond in a timely manner
- Lives were lost
- Most of the disasters could be tied to one or two individuals and one or two decisions they made
How can Such Disasters be Avoided?

- Share responsibilities, don’t be afraid to ask for help
- Take the time to imagine, then share your imagination with others to evaluate its validity
- Know the law, perform accordingly
- Prepare a schedule to keep yourself on-track
- Train others to respond in your absence
- Always be prepared
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