

**Minutes of Safe Practices Subcommittee of the Committee on Chemical Safety
7pm, March 12, 2005, Marriott Gaslamp Quarter, San Diego, CA**

Attending: Paul Schickedantz, Lester Bynum, Bob Alaimo, Michael Cournoyer, Russell Phifer (Chair), Barbara Foster, Art Marcinkowsky, Harry Elston, Robert Rich (ACS staff liaison), Al Hazari (Committee Chair). David Crumrine, Patrick Barber & Marsha Phillips, all new CCS members, also visited to see the nature of the subcommittee's work.

1. Plant safety issues – we have continued to add to the Checklist for smaller chemical businesses and universities to consider when addressing security issues. Our plan is to have this published on the Committee's website, initially as a draft document. Following is the updated list of questions/ issues:

Checklist for Small Chemical Plant & Academic Facility Security Managers to deal with terrorism & vulnerability issues

Introduction -

DRAFT - This booklet is intended for use by security and/or senior management officials at small chemical plants and academic facilities where hazardous materials are commonly stored and used. It is assumed that larger facilities are complying with specific guidelines for Security Vulnerability Analysis (SVA) as developed by various trade-oriented organizations; however, smaller industrial facilities and academic institutions may be equally at risk for terrorist activities or vandalism resulting in hazardous material releases, theft, and/or fire & explosions associated with stored hazardous materials. The purpose of this booklet is to help security officials recognize the potential hazards and develop systems which address the vulnerabilities specific to their facilities. It is recognized there are significant differences between security procedures and scenarios at various facilities; academic institutions clearly face greater challenges in securing facility access, for instance. Nonetheless, recognizing vulnerabilities can help to identify weaknesses in emergency plans and reduce the risk of both terrorist and vandal activities.

1. Evaluate access & egress to the facility and determine weak points -ex. Shipping/Receiving areas
2. Do you have security cameras? Where are they located? Are they monitored? What type of security is there for the cameras?
3. Do employees all have photo identification, and are they required to wear them? Are they color coded for access to specific areas?
4. Is there a perimeter fence? Is it secure? How is it guarded? Is it inspected?
5. For smaller facilities with skeleton staff on certain shifts, is there adequate security at entrance areas?
6. What type of emergency communication is available in the event of an attack on the

facility?

7. What hazardous materials are present at the facility that are susceptible (fuels, flammable materials, etc.) and is there extra security for those areas?
8. What is the worst case scenario in the event of 1) a terrorist attack, 2) vandalism, 3) violent weather, 4) power failure, 5) fire.
9. What types of backup power are available? How is it implemented?
10. If you are hosting a meeting that involves personnel from outside, what are your specific responsibilities? Do you know exactly who is coming, do they know where they are allowed to go, and what controls are there on their movement through the facility?
11. What evacuation procedures are in place in the event of an attack?
12. What PPE is readily available in the event of an emergency?
13. Who owns surrounding property and what is the access? Are there residential properties which might be vulnerable in the event your facility is attacked?
14. Is there routine air traffic above the facility? Are the flight elevations known?

The subcommittee discussed specific other small groups that might benefit from such a checklist. This could include dry cleaners, gas stations, wastewater & water treatment plants, farmers, etc.

2. **Nanomaterial safety** – all members of the subcommittee were asked to research hazards associated with nanotechnology and report on this topic at the San Diego meeting. It is clear this is an ongoing issue which is not yet fully understood. There is no actual data available since nanomaterials are so new. Various sources indicate there are significant concerns with particles of this size, as both manufacturing workers and consumers may be exposed to nanomaterials in such products as sunscreens and cosmetics, as well as decomposition of products containing nanomaterials. The National Toxicology Program is carefully evaluating nanoscale materials for toxicological concerns. Lester had previously indicated there is a nanotechnology topic page which updates NIOSH's efforts to address nanotechnology safety - (<http://www.cdc.gov/niosh/docs/2004-142>). Michael provided the URL for the NIH website addressing this issue - www.niehs.nih.gov/oc/factsheets/nano.htm . The subcommittee will continue to monitor research in this area before attempting to draw any specific conclusions. Paul noted that safety problems are likely to show up first in plants where nanomaterials are manufactured. We should pay particular attention to any new data from this source. The Committee on Environmental Improvement is also studying this issue, and has a subcommittee working on acquiring data as well. We will report and continue to summarize any new information at the next meeting in

Washington.

Old Business: The subcommittee has been asked to address concerns that undergraduate students are not receiving adequate chemical safety training, resulting in complaints from industrial facilities. Barbara Foster and Michael Cournoyer are members of the ACS Task Force on Safety in the Curriculum which addresses this issue. The Task Force is active and moving forward on the goal of getting safety incorporated in every aspect of curriculum involving hazardous materials, including chemistry, biology, physics, and other sciences. The Task Force has not met since 2003. The Teaching Safety Online project is also being evaluated for publication by ACS.

This is also an issue for the Division of Chemical Safety; the DivCHAS meeting on Sunday featured a visit from two representatives of the Committee on Professional Training. They were invited to the meeting to address the Division's concerns over this issue, in particular what ACS can do to encourage increased emphasis on safety in the college/university chemistry curricula.

New Business:

Russ provided a copy of his local school district's Student Laboratory Code of Conduct for their Secondary Science Program. We discussed the possibility of reviewing this document and preparing a template for use by secondary schools. We will work on a draft and have it reviewed by ACS in-house counsel before having this issued. Russ will send subcommittee members an electronic copy of the existing document for review and revision prior to the Washington meeting.

Michael initiated a discussion of the cleanup from "dirty bombs". The EPA is working on establishing a cleanup standard that would apply in the event a dirty bomb was discharged. These are not as stringent as standards that might be applied for other environmental emergency cleanups. The subcommittee will investigate health issues associated with dirty bombs and monitor EPA's development of standards.

The meeting adjourned at 7:59 PM.

Respectfully submitted,

Russell Phifer, Subcommittee Chair