October 5, 2009
United Steelworkers (USW) Health, Safety & Environment Department
Critique of the US Chemical Safety Board (CSB) Report on the October 11, 2008 Oleum Release at INDSPEC Chemical Corporation in Petrolia, PA

1. Although the report is well written, it lacks the quality of analysis of past reports. A major release of oleum, a widely used and highly hazardous material that endangers both workers and the public, should trigger a comprehensive investigation and formal recommendations, rather than just lessons learned.

2. The local union was excluded from the beginning of all aspects of the employer's investigation and from much of the CSB investigation because the company proclaimed that the investigation was "privileged." This is a direct violation of the statute establishing the CSB, which states: "Whenever the Administrator or the Board conducts an inspection of a facility pursuant to this subsection, employees and their representatives shall have the same rights to participate in such inspections as provided in the Occupational Safety and Health Act [29 U.S.C. 651 et seq.]." Past practice has allowed a union member to participate in investigations at this workplace. The CSB interviewed employees with a union representative present, but did not account for much of the content of those conversations in the report.

3. In April 2009, the Occupational Safety and Health Administration (OSHA) issued 27 citations with proposed penalties of $121,500. Most of these violations contributed directly or indirectly to the incident or its severity, but the CSB Case Study barely touches on them in the analysis or lessons learned. The items lacking from the CSB report include emergency response, training deficiencies, and the failure to provide proper protective equipment to workers.

4. The CSB case study does not mention the worst case scenario or the protective measures as required from the Environmental Protection Agency (EPA) Risk Management Program.

5. The CSB case study does not specify the amount of oleum stored on site or the amount released. It is not possible to fully evaluate the potential severity of the accident without this data. Oleum poses a severe risk to workers and the community. In 1993 a release of oleum in Richmond, California sent more than 5600 people to local hospitals and clinics.

6. The tank vent system appears inadequate to handle the loss of primary contaminant, and there was no secondary containment. The vent piping should be as large as or larger than the inlet piping, and the vent should be directed to the vapor space of a sulfuric acid tank large enough to contain the release or to an adequately sized scrubber. These industry best practices are not mentioned in the CSB Case Study.

7. The Case Study does not adequately address training deficiencies. The CSB suggests that worker to worker provided on-the-job training contributed to this release. The USW knows that workers make excellent trainers and should be utilized. However, management is solely responsible for ensuring that adequate training is provided. OSHA cited INDSPEC for training deficiencies while the CSB barely mentions the issue.

8. The Case Study identifies the routine use of the emergency power supply as a cause of the release. The CSB report implies that operators were somehow doing this on their own, without management's knowledge. In the CSB report, a former employee states that a former manager knew of the practice. The emergency power source had been used on a regular basis for 28 years. The flow rates into process tanks were twice as fast when the emergency power was in use. Operators report to the USW that managers were aware of the emergency power use. Also, OSHA's Process Safety Management Standard (PSM) requirements of process safety analysis and audits are designed to ensure that management have knowledge of, and responsibility over, the systems, equipment and practices in the plant.

9. As a result the company's response to correcting the problem of the release was to fire an employee, not to correct the failed management systems.

10. The CSB report fails to identify the key and true root causes of the oleum release, that the system should have been hard wired, constructed with safety devices on both power supplies, and supplied with adequate instrumentation.

11. OSHA cited numerous failures of the emergency response system. Neither the company nor EPA monitored airborne sulfuric acid levels during the release. Airborne chemical levels in one building were not tested prior to workers being sent into it without proper personal protective equipment (respirators and protective clothing). No standby team was present. Alarms were not adequate. Workers who exhibited symptoms consistent with oleum exposure were not afforded medical examinations. The CSB report mentions little of these emergency response system problems.

12. The CSB Case Study contains three general and somewhat vague "lessons." OSHA citations issued contained 27 legally-binding requirements. The employer's report contains 30 recommendations. The OSHA citations and employer report were available to the CSB Case Study authors, but are not mentioned. If the CSB agrees with the OSHA citations, it should state their agreement. If not, it should state why not. The USW expects the CSB reports to be more comprehensive than OSHA citations, since they can go beyond legal compliance requirements and focus on root causes that do not necessarily violate OSHA standards. That is not the case in this CSB report.