Incident has occurred

- LARGE dry powder spill event (15 tons) occurred on the road outside our plant’s loading dock
- There is potential for air-borne spreading, and off-site release if it gets wet
- It is a load of an EPA approved nano-Copper pesticide
- This is a controllable event, but immediate risks do exist with nearby school children
What are doing right (now)

• Immediately implemented our emergency response plan
• Employees are asked to stay inside, and do not attempt to clean up spill
• Immediately Called first responders
• Closed off road/walking traffic – because of upcoming rush hour
• Emergency response team from the city is informing school and other neighbors
• Make Company spokesperson be the point contact, and present in an incident command center; have CEO on speed-dial
• Call insurance agency
Next steps (hours)

- Be sure to block off storm drains to prevent water releases (to collect water/foam) – but who does this? (employees/first responders?)
- Understand weather patterns (collect met data for future exposure modeling law suites)
- Hired outside company for emergency clean-up and air monitoring
- Be sure emergency response organization should be informing local neighbors to keep windows closed (and could be sealed)
Our Existing Plan/Protocol is Progressive

• Design to protect our employees and neighbors
• We follow all OSHA and EPA protocols
• We have an emergency response plan in place
• We have a medical surveillance program for any employees in contact with nanomaterials already
• We already have air monitors on perimeter of site, and partnered with local school for an urban air monitoring station
Biggest expert “nano” concerns

• Mobilization into air is our primary initial risk
  – Localized exposures (< 1 mile)
  – Potential eye and skin irritants; visible and take photos and report immediately to doctor
  – Acute inhalation exposure can lead to sensitization (allergy) over long term (copper, silica)
  – Precipitated silica is less of a concern than fumed silica (good news)
  – Full-face HEPA respirators are our lowest line of precaution when our employees leave building; follow trained professionals
  – This was a “low energy emission” scenario (not an explosion), and can be controlled now by minimizing emissions (foams/wetting)

• Secondary risk is mobilization into stormwater because of the eco-tox sensititivy of many organisms
Human versus environmental concerns

• Human skin/eye irritation (high)
• Human inhalation (med-high)
• Aquatic environment (med) if water is not controlled
• Soil pollution could be long-term
Prepare for lawsuit

- Interview employees associated with spill, and don’t have them talk to public. Were we following all approved handling/shipping protocols?
- If unionized employees – call union representatives ASAP.
- Take photographs by someone?
- Prepare to do atmospheric modeling.