Documenting Industry-wide Health, Safety and Environmental Conditions for Bargaining and Policy-making

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Photographs by Brett Coomer, *Houston Chronicle*.

A Decade of Participatory Research and Evaluation

- 1997: began collaboration on a major participatory research and evaluation initiative
- USW research and evaluation teams have engaged over 40 rank and file workers in 15 studies
- Studies have focused on single work sites, groups of work sites, and entire industries

Two Nation-wide Research Projects

- Workplace Incident Prevention and Response Since 9/11 – A study of chemical plant vulnerabilities to accidents and intentional acts of terrorism †

- Beyond Texas City: The State of Process Safety in the Unionized U.S. Oil Refining Industry

† Lippin, TM, McQuiston, TH, Bradley-Bull, K, Burns-Johnson, T, Cook, L, Gill, ML, Howard, D, Seymour, TA, Stephens, D, Williams, BK. 2006. Chemical Plants Remain Vulnerable to Terrorists: A Call to Action. *Environmental Health Perspectives* 114(9)

USW Participatory Action Research

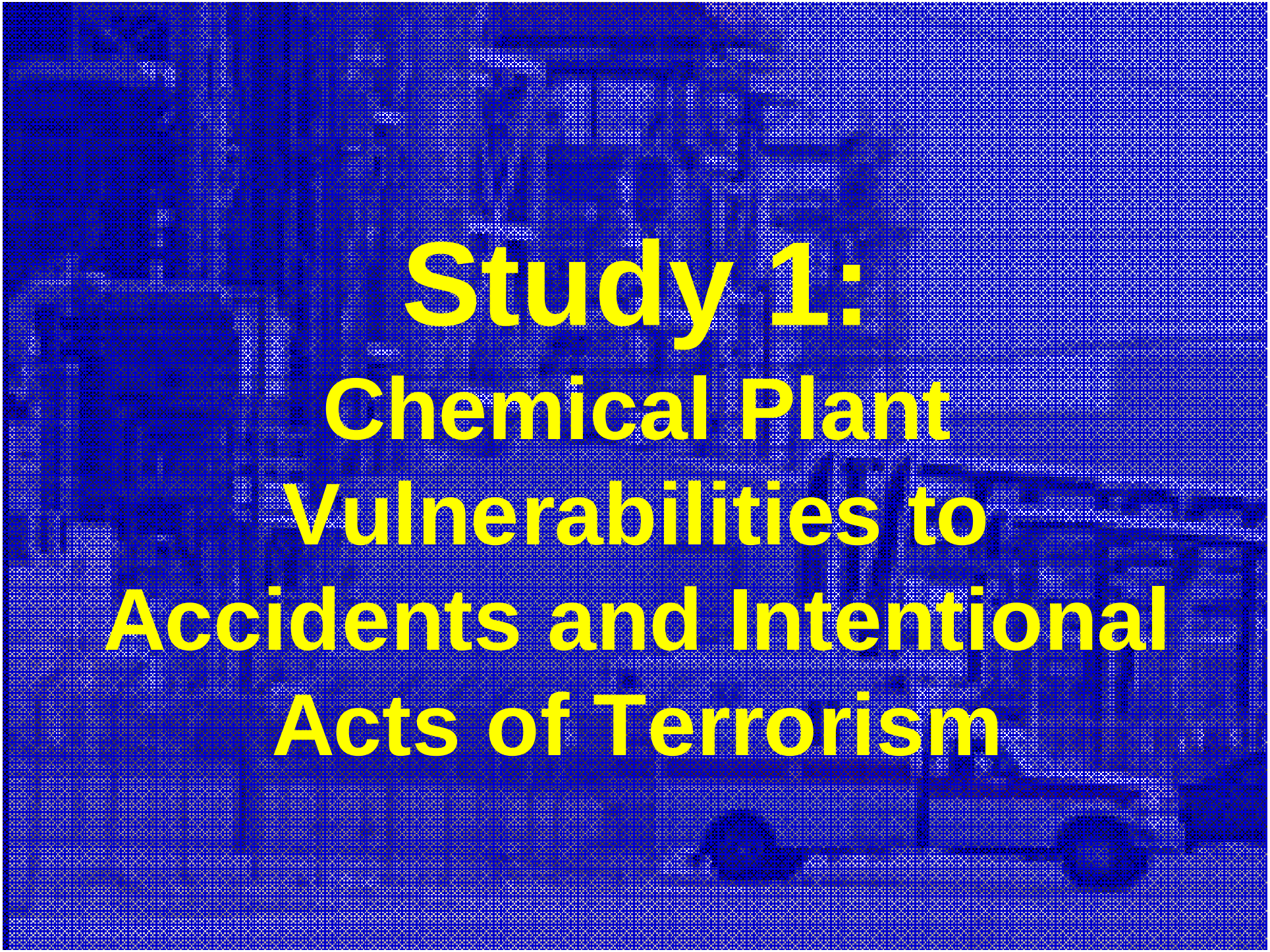
- Two studies engaged 25 team members in all phases
  - Research focus
  - Survey development
  - Data analysis
  - Development of *Conclusions* and *Recommendations*
  - Report writing
  - Taking action

Research Teams

- Local Union Members from affected sites
- USW International Leaders and Staff
- Tony Mazzocchi Center (TMC)
- Labor Institute
- New Perspectives Consulting Group

The Process and the Meaning of Working as a Team

- Workshops
  - Using small groups
  - "Half-baked" processes
  - Multiple sessions
- Ongoing Work
  - Subgroups and work teams
  - Conference calls and web meetings
- Lead Writers and Critical Review



Nationwide Survey of USW* Represented Chemical Plants

- Participatory research study of local union leaders at 125 sites
- Each with large volumes of highly hazardous chemicals, i.e., EPA Risk Management Program (RMP) sites
- Survey response rate: 70%

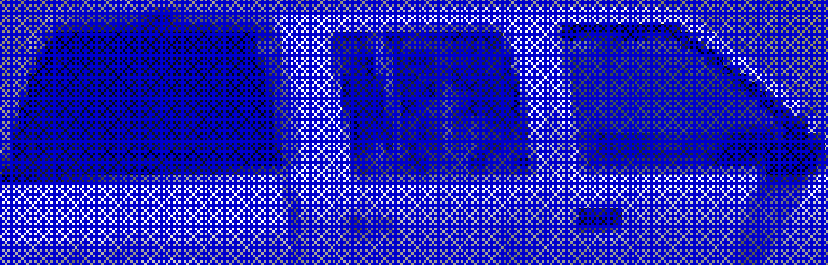
* Were represented by PACE at the time of the study

Prevention Lacking

- Company actions most frequently focused on security
  - Improved systems to guard and secure the plant (73%)
- And least frequently on inherently safer approaches
  - Reduced volumes of hazardous substances (17%)
  - Improved siting of hazardous substances or processes (14%)
- Less than half indicated that their companies' preventative actions were effective (44%)

Preparedness and Involvement Lacking

- 38% indicated that their company's actions *in preparing to respond* to an event caused by a terrorist attack were effective
- Low level of involvement of key stakeholders -- including workers, local unions, and the surrounding communities



USW Recommendations

1. Specify detailed requirements for chemical site assessment and security.
2. Mandate audit inspections supported by significant penalties.

USW Recommendations (Cont'd)

3. Require progress toward achieving inherently safer processes including minimizing storage of highly hazardous chemicals.

4. Examine and require additional effective actions in prevention, emergency preparedness, response and remediation.

USW Recommendations (Cont'd)

5. Mandate and fund the upgrading of emergency communication systems.

6. Involve workers and community members in plan creation and equip and prepare them to prevent and respond effectively to an incident.

Use of Study Results to Leverage Change

- Published findings in a peer-reviewed journal — worker and staff co-authors
- Used findings to inform and persuade policymakers:
  - Senate & House Committee testimony
  - Homeland Security comments on rulemaking
- Disseminated findings through the press
- Informed local union leaders and promoted action via participatory training

Study 2:
Beyond Texas City

The State of Process Safety in the Unionized U.S. Oil Refining Industry

Nationwide Survey of USW Represented Refineries

- Participatory research study of local union leaders at 51 refineries
- Survey response rate: 72%
  - 49% of the U.S. refining capacity

Primary Focus: *Highly Hazardous Conditions*

- Four *highly hazardous conditions* found to be key contributors to the 2005 BP Texas City disaster:

1. Use of atmospheric vents
2. Failed instrumentation and alarm systems
3. Unprotected buildings near process units
4. Non-essential personnel in vulnerable areas

Highly Hazardous Conditions, Near Misses, Incidents Abound

- 90% reported the presence of at least one of the targeted *conditions*
- 61% reported at least one incident or near-miss involving targeted *conditions*
- Numerous descriptions of types of process failures

Conclusions

- Critical process safety deficiencies are widespread - mirror those found at Texas City
- Widely ignored lessons from incidents prior to and including Texas City
- Following Texas City, a majority of refineries with *highly hazardous conditions* took no action or took actions judged less than very effective

USW Calls for Action

1. Establish process safety teams
2. Improve process hazard analyses
3. Eliminate targeted highly hazardous conditions
4. Require full safety reviews for all process start-ups and shutdowns
5. Ensure adequate staffing

Planned Use of Study Results to Leverage Change

- Develop manuscript for publication in peer-reviewed journal
- Disseminate study report to:
  - All USW refinery locals and refinery coordinated bargaining counsels
  - The press, government agencies, key leaders on Capitol Hill

Planned Use (cont'd)

- Promote implementation of recommendations in contract bargaining
- Advocate for improvements in OSHA regulations and enforcement

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