November 20, 2007
Summary of Chlorine Gas Security Survey

- 1175 Utilities Completed Chemical Security Survey (98% elected to include facility specific information - name, location, contact info, etc)

- Utilities surveyed in 48 of the 50 States

- 406 Wastewater utilities (61 of the utilities were wastewater only. 345 of the utilities were wastewater and drinking water)

- 1114 Drinking Water Utilities
  - 806 groundwater
  - 321 surface water
  - 38 GUDI

- Results by Population Served
  - >25-500 People - 157 Respondents
  - >501-3,300 People - 465 Respondents
  - >3,301-10,000 People - 340 Respondents
  - >10,001 - 50,000 People - 157 Respondents
  - >50,001 - 100,000 People - 22 Respondents
  - >>100,000 People - 27 Respondents

- 91% of Respondents have evaluated disinfection method considering water quality, public health and security. (This is the critical question to EPA)

- 77% use gas chlorine

- Chlorine Cylinder size - 150 lbs - 69%, 1 ton 10%, no response 21%

- Maximum number of containers on site
  - 1-4: 37%, 5-9: 26%, 10-14: 10%, 15-20: 3%, 21-50: 0.5%, 50+: 0.1%, No Response: 23%

- 74% do NOT have air scrubbing equipment (83% of those without air scrubbing equipment use gas chlorine). There is not a significant difference between the size of the system and the lack of air scrubbing equipment in utilities. (Percentage of utilities without air scrubbing equipment: 25-500 - 68%; 501-3,300 - 74%; 3,301-10,000 - 78%; 10,000 - 50,000 - 77%; >50,000 - 55%)

- 79% have a secured perimeter around facility and 58% can monitor the perimeter

- 76% store hazardous materials in a hardened building. (No response from 8%)

- 89% limit access to authorized personnel only (No response from 8%)

- 74% have delivery protocols
• There is not a significant difference between the size of the system without delivery protocols accept in utilities serving less than 500 people. (Percentage of utilities without delivery protocols: 25-500 - 26%; 501-3,300 - 17%; 3,301-10,000 - 15%; 10,000 - 50,000 - 14%; >50,000 - 12%).

• 39% use SCADA to monitor treatment chemicals (no response from 7%)

• 77% have an emergency response plan to mitigate hazardous material releases and respond to security breaches such as theft.

• 68% provide utility personnel with OSHA Hazardous material training (no response from 5%) - Percentage of systems without OSHA training by size: 25-500 - 38%; 501-3,300 - 26%; 3,301-10,000 - 29%; 10,000 - 50,000 - 20%; >50,000 - 16%)

• 60% exercise their ERP (No response from 5%). Percentage of systems who do not exercise their ERP by size: 25-500 - 38%; 501-3,300 - 34%; >3,301-10,000 - 34%; 10,000 - 50,000 - 35%; >50,000 - 18%)

• 69% of utilities perform background checks. (No response from 4%)

• 56% of utilities have protocols to implement during elevated threats (No response from 3%).

• 91% have protocols for reporting incidents (No response from 4%)

• RURAL WATER QUESTIONS:
  Who makes you aware of security concerns?
  State - 22%
  Rural Water Training - 42%
  Rural Water On-site Assistance - 21%
  EPA - 5%
  DHS - 7%

• Who has provided the most useful security information?
  State - 15%
  Rural Water - 71%
  EPA - 5%
  Consultants - 6%

• 9% of utilities have received grants from EPA or DHS to increase security.

• 79% would support changing the CCR to improve communication with the public

• 5% have received assistance from EPA to enhance security at their facility

• 6% have received assistance from EPA to enhance security at their facility