

Status of Water & Wastewater System Security Act (aka Chemical Security Act)

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Discussion Outline

- Background to security and vulnerability
- History of legislation
- Current status

Background

CFATS – Chemical Facility Anti-Terrorism Standards – water & wastewater systems exempted

Public Health Security & Bioterrorism Preparedness & Response Act of 2002– VA's reqd

History According to Maddox

- AWWA Fly-Ins
 - 2003 – Asked to exempt water utilities that have Vulnerability Analysis
 - 2004 – Not a topic issue
 - 2005 – Not a topic issue

- 2006
 - Legislation should accept VA's
 - Should not interfere with treatment technology by imposing Inherently Safer Technologies (IST)
 - Water Utilities exempted from Chemical Security Act
- 2007
 - House language approved to give DHS authority to require facilities using Cl2 or other dangerous chemicals to switch to IST
 - House & Senate versions must be reconciled
 - Water utility exemption continues

2008

- January 2008 – House Comm on Homeland Security tries to include water & w/w systems in CFATS which have exempted them
- January 23, 2008 – House Sub Comm on Transportation Security & Infrastructure Protection reports bill on voice vote to give DHS authority to order use of IST
- February 2008 – Committee jurisdiction fight starts. House Energy & Commerce Comm asserts jurisdiction, they oversee EPA and Safe Drinking Water Act
- March 2008 – House Energy & Commerce offered bill to specifically exempt water & w/w from DHS regulation & not impose IST

- Utility exemption to continue to October 2009

Early 2009

At AWWA Fly-In faced with fact we will not be heard if continue to oppose an exemption, left with position that we could support if:

- Excludes any federal authority to order use of IST
- Excludes any federal authority to order a shut down
- Applies to utility only if have chems of concern above identified thresholds

June 2009

- Draft bill from House Energy & Commerce:
 - VA's updated every 5 years
 - Site security plans & Emergency Response Plans developed
 - EPA may designate a substance of concern
 - EPA establishes four risk based tiers
 - Employees trained annually on site security and ERP
 - IST's now called "methods to reduce the consequences of a chemical release from an intentional act"

Draft Bill cont'd

- Systems do IST assessment and send to EPA and State primacy agency
- Information developed protected from Freedom Of Information Act
- Supervisory, non-supervisory and union personnel involved in VA's and site security plan development
- Wastewater not covered & oversight is by Dept of Homeland Security

August – Oct 2009

- HR 3258 introduced and followed draft language
 - Association of Metropolitan Water Agencies supports HR 3258
 - AWWA supports but sees major issues:
 - Still no local decision on use of IST, even though state primacy agency involved
 - Feds could override state if EPA determines state not made timely decision
 - States not allowed to consider risk-risk trade offs in utility decision making, risk shifting
- October 21 – HR 3258 approved by House Comm on Energy & Commerce (without recognizing AWWA concerns)

Bills Emerged end of 2009

- HR 2868 – House Com on Homeland Security on July 13 passed bill that institutes chemical security program over wastewater and chemical plants
- HR 2883 – House Com on Transportation & Infrastructure Subcom on Water Resources & Env introduced by Rep Eddie Bernice Johnson creates security program for wastewater only under EPA
- HR 3258 – House Energy & Commerce bill with water utilities under EPA and States

Current Status

- HR 2868 – Nov 6 passes House on vote of 203 – 193 a “amendment in the nature of a substitute” or “managers amendment” that combines HR 2868 with HR 3258 & HR 2883

HR 2868 Summary

- 177 pages long
- Chemical & Water Security Act of 2009
- Title I – Chemical Facility Anti-Terrorism Act of 2009, DHS regulates chemical facilities
- Title II – Drinking Water System Security Act of 2009, amends SWDA (40 pages)
- Title III – Wastewater Treatment Security Act of 2009, amends Federal Water Pollution Control Act
- Water & wastewater under jurisdiction of EPA for chemical security

Summary of Title II

- Applies to systems >3,300 pop
- Risk based performance standards set by EPA
- Update VA, site security plan and ERP every 5 yrs
- EPA designates substance of concern with threshold quantity
- Four risk based tiers
- Employees trained, and supervisory, non-supervisory, & union rep involved
- Has “methods to reduce the consequences of a chemical release from an intentional act”
- State primacy agency assessment, with EPA oversight

Summary of Title III

- Applies to >2.5 MGD capacity
- State with approved program under Section 402 involved
- Much the same as Title II

Next Steps

- HR 2868 referred to Senate Homeland Security & Gov't Affairs Comm
- Ranking Member Susan Collins, (R-ME) says she and Comm Chair Joe Lieberman (I-CT) will soon introduce A CFATS bill.
- Collins has said their bill will not include "inherently safer technology"
- Some say formal action doubtful before end of year

OPFLOW October 2009
Minimize Perchlorate Formation in Hypochlorite Solutions

*By BENJAMIN D. STANFORD, ALEKSEY N. PISARENKO,
SHANE A. SNYDER, GILBERT GORDON*

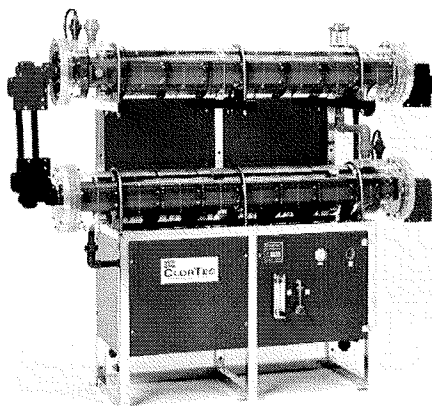


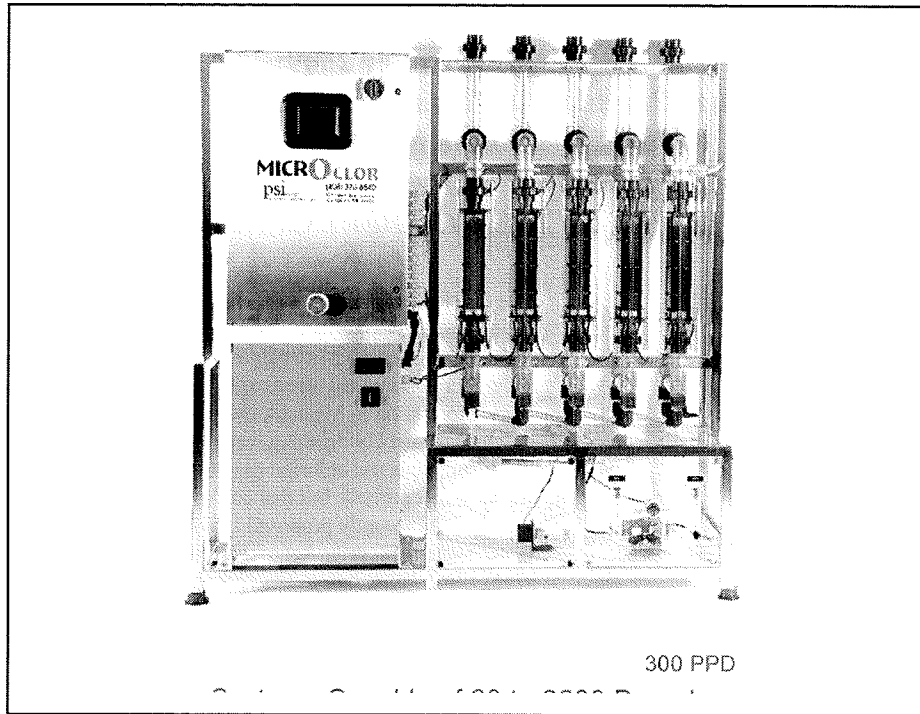
A research team led by the Southern Nevada Water Authority recently completed a study that investigated the rate of perchlorate and other oxyhalide species formation in hypochlorite solutions. Most US drinking water treatment plants use chlorine gas during the treatment process, but that could change if the recently proposed Drinking Water System Security Act of 2009 (H.R. 3258) is passed.

ClorTec®

On-Site Sodium Hypochlorite Generation Systems

High Output CT Series - 450 to 3,000+ lb/day (204 to 1,360+ kg/day)





Preliminary Design Criteria				
On-Site Sodium Hypochlorite Generation System				
City of Austin Water Treatment Plant No. 4				
	Description	Units	Phase I	Ultimate
Feed Criteria				
	Process Flow Rate	MGD	50	300
	Chemical Dosage	mg/L	6.5	6.5
	Pounds of Chlorine per Day	lbs	2,711	16,263
	Chemical Feed Rate (0.8% Solution)	gpm	27.7	166.2
Salt Storage				
	Pounds of Salt Used per Day	lbs	8,132	48,789
	15 Days of Storage	lbs	121,973	731,835
	Days between delivery	days	5	5 every 4days
Generators				
	No. of Generators (including one spare)	no.	3	12
Softened Water Usage				
	Gals Water Used per Day	gal	40,658	243,945
	Generator Power Usage	KW-hr	5,421	32,526
Dilute Solution Storage				
	Gallons Used per Day	gal	39,895	239,373
	No. of Tanks	no.	2	8

Questions/Comments
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