Connectivity Means Exposure
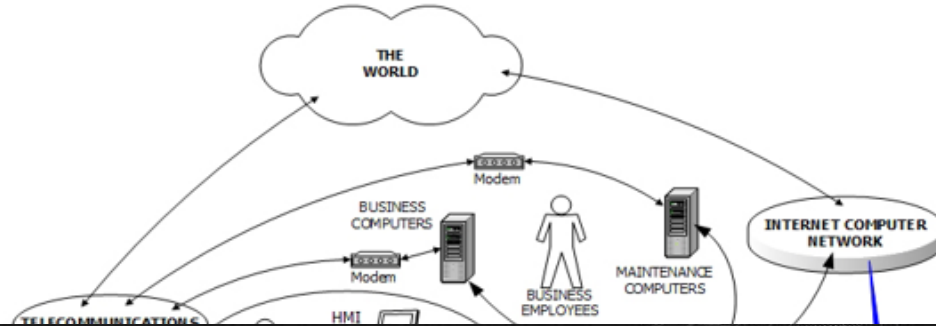
Enterprise System
- Employee Pay
- Service contra
- Customer Billi
- LIMS, etc.

Process Control S
- SCADA
- AMR/AMI
- Telecommunications
- HVAC

Source: ICS-CERT

Riviera Beach, Florida Ransomware Attack: City Pays $600,000

A Riviera Beach, Florida, ransomware attack prompted the city to pay $600,000 to hackers in a bid to decrypt infected computers.

Florida Water Utility Hacked For Customer Account Data

By Sara Jerome, @sarmje

The U.S. Secret Service is investigating how a hacker managed to steal customer information from a water utility in Margate, FL.

Margate police said account information for nearly 70 ratepayers in Margate and Coconut Creek were compromised, the *Sun-Sentinel* reported. The customers had gone online to pay with debit or credit cards.

Texas Cyber Attack Has Taken 23 Government Agencies Offline

Davey Winder Senior Contributor
Cybersecurity
I report and analyze

BWL paid $25,000 ransom after cyberattack

Ken Palmer, Lansing State Journal   Published 9:32 p.m. ET Nov. 8, 2016 | Updated 4:26 p.m. ET Nov. 10, 2016

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LANSING - The Lansing Board of Water & Light paid a $25,000 ransom to unlock its internal communications systems after they were disabled by a cyberattack last spring, officials said Tuesday.

Feds Investigate After Hackers Attack Water Utility

Federal and state officials are working with a North Carolina water utility after hackers attacked some of its computer systems.

Oct. 15, 2018, at 5:57 p.m.

Tipton, Indiana – May 2024

Russia-linked hacking group claims to have targeted Indiana water plant

By Sean Lyngaas, CNN
2 minute read · Published 4:08 PM EDT, Mon April 22, 2024

The Tipton, Indiana, wastewater treatment plant. From Tipton Municipal Utilities

Kokomo Tribune, Ind.

Russian hackers claim responsibility for cyberattack on Tipton plant

Kokomo Tribune, Ind.
April 25, 2024 · 1 min read

Apr. 25—TIPTON — Russian hackers are claiming responsibility for a cybersecurity attack on a wastewater treatment plant in Tipton.

Tipton Municipal Utilities General Manager Jim Ankrum, according to Tribune newsgathering partner WTHR, said the Tipton West Wastewater Treatment Plant was the target of the cyberattack the night of April 19. Notably, the attack caused minimal disruption to the operation of the plant and did not impact the city's main treatment plant and drinking water plant.

» Malware
  » Any software that is intentionally designed to harm or exploit a computer, network or server
» Insider Threats
  » An insider is any person who has or had authorized access to or knowledge of an organization's resources, including personnel, facilities, information, equipment, networks, and systems.
» Social Engineering
  » Manipulating people so they give up confidential information.

Common Threats

Example Vulnerabilities

How are we vulnerable?

» Disgruntled employee with access

» Shared / easy passwords

» Remote access by integrator / vendors

» USB drives

» Email

» Internet connection

» Laptop connections

» Missing patches

» Zero-Day vulnerability

America's Water Infrastructure Act of 2018 (AWIA)

The Safe Drinking Water Act (SDWA) section 1433

» Amended by America's Water Infrastructure Act (AWIA) Section 2013 in 2018
» Requires community water systems that serve more than 3,300 people to complete a **Risk and Resilience Assessment (RRA)** and develop an **Emergency Response Plan (ERP)**.
» Systems must certify to EPA that this work has been completed.
» SDWA section 1433(a) states that the RRA must include "electronic, computer, or other automated systems (including the security of such systems)," otherwise known as cybersecurity. Therefore, a cybersecurity assessment must be included in the required RRA.

RRA/ERP Certification Deadlines

Population Served	Previous RRA Deadline	Next 5-Year Submission Cycle RRA Deadline
≥100,000	March 31, 2020	March 31, 2025
50,000-99,999	December 31, 2020	December 31, 2025
3,301-49,999	June 30, 2021	June 30, 2026

Population Served	Previous ERP Deadline*	Next 5-Year Submission Cycle ERP Deadline*
≥100,000	September 30, 2020	September 30, 2025
50,000-99,999	June 30, 2021	June 30, 2026
3,301-49,999	December 31, 2021	December 31, 2026

Assess Your System

AWWA Cybersecurity Assessment Tool and Guidance

» Web-based Self-Assessment Questionnaire
  o user can save data from the Tool

» Helps facilitate discussions between utility staff about cybersecurity

» Provides a custom, prioritized list of recommended controls

EPA Cybersecurity Assessments

» An EPA contractor will conduct a free assessment for water / wastewater systems to identify gaps or vulnerabilities in information technology and operational technology using the EPA Cybersecurity Checklist.

» Provides a report that identifies cybersecurity gaps and/or vulnerabilities

Indiana Requirements

» Drinking Water

  » AWIA requirements applies to utilities with a population over 3,300.

  » IDEM initiating a voluntary program encouraging municipal drinking water utilities to perform annual cybersecurity vulnerability assessments.

» Wastewater

  » AWIA framework applies only to drinking water.

  » Indiana proposing implement the same voluntary assessment and mitigation program being used in the drinking water program, but will require additional groundwork and preparations to roll out.

» Overview

  » Initially the voluntary program will be available to utilities of any size or system sophistication.

  » All community public water systems and all municipal wastewater systems will be contacted and encouraged to participate.

Conclusion

» Understand the danger – know the enemy and know their game.

» Understand and protect your network

» Improve yourself and your community – take cyber related trainings, complete an assessment of your system, take small steps to protect your system (improve password complexity)

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