

# Texas Optimization Program (TOP)



## Lessons Learned

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# Outline



- TOP's Beginnings
  - Why Optimize?
  - Comprehensive Performance Evaluations (CPEs)
- TOP's Expanded Role
  - Training and Technical Assistance
  - Distribution System Evaluations
  - Corrosivity Evaluations
  - Revised Total Coliform Rule



# TOP's Beginnings



- Optimization of Conventional Surface Water Treatment Plants (SWTPs)
- Comprehensive Performance Evaluations (CPEs)
- Performance Based Training (PBT)



# Why Optimize?



- Optimized Turbidity Goals Provide Additional Public Health Protection
  - Settled water turbidity < 2 NTU
  - Individual filter effluent turbidity < 0.1 NTU
  - Reduced backwash turbidity spike and spike duration
  - = additional Cryptosporidium removal



# Why Optimize?



- Currently 14 Public Water Systems (PWSs) Participate in the TOP Recognition Program
  - 4 SWTPs have met the Optimization Recognition Criteria continuously for 5 years
  - 1 SWTP – 15 years

# CPEs



- Thorough review and analysis of a facility's design capabilities as well as administrative, operational, and maintenance practices
- Determine and correct Performance Limiting Factors
- CPEs expanded from voluntary optimization evaluations to mandatory compliance events

# CPEs



- Common Issues
  - Turbidimeter data
  - Lack of or insufficient Standard Operating Procedures (SOPs)
  - Application of water treatment concepts
  - Communication



# TOP's Expanded Role



- Training and Technical Assistance
  - PWS Operators and Administrative Staff
    - Development of Directed Assistance Modules (DAMs)
    - Customized technical assistance visits by TCEQ staff and TOP contractors



# TOP's Expanded Role



- Training and Technical Assistance (cont.)
  - Water Supply Division staff and TCEQ Investigators
    - Development and delivery of Training Modules
    - Assistance during and after PWS investigations

# TOP's Expanded Role



- Distribution System Evaluations
  - Disinfectant Residual Maintenance
    - Chloramine chemistry
    - Nitrification
    - Best practices
    - Corrective actions



# TOP's Expanded Role



- Evaluation of Water Corrosivity Leaving Treatment Plants
  - Field evaluation of corrosion and scaling indices
  - Raising operator awareness of corrosivity issues and corrosion control



# TOP's Expanded Role



- Revised Total Coliform Rule (RTCR)
  - Developing tools and training for Level 1 and Level 2 Assessments
  - Providing onsite assistance for Level 2 Assessments
  - RTCR's 'find and fix' approach requires a comprehensive view of potential sanitary defects

# Thanks for Your Time!



- Questions or comments:

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# Financial, Managerial, & Technical (FMT) Assistance



If you operate a water or wastewater system and would like to arrange for free financial, managerial, or technical assistance, contact our Financial, Managerial and Technical (FMT) program team:

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<https://www.tceq.texas.gov/drinkingwater/fmt>

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