IEPA SMALL SYSTEMS COMPLIANCE ASSISTANCE PROGRAM

BACKGROUND

PROGRAM GOAL AND PURPOSE

MULTI-PHASED FACILITY SPECIFIC COMPLIANCE ACTION PLAN

PROGRAM DESIGN
BACKGROUND: IEPA SMALL SYSTEMS COMPLIANCE ASSISTANCE PROGRAM

CHALLENGES FACED BY SMALL MUNICIPAL FACILITIES

- Economic/Financial Limitations (MHI 20K-35K)
- Aging or Inadequate Infrastructure (some date to 1960s).
- Inadequate Operation & Maintenance Procedures
- Difficulties Recruiting or Retaining Qualified Staff
- Lack of Training/Poor Understanding of Process Control by the Operator

COMPLIANCE ISSUES

- Systems not designed to meet new limits based on water quality standards
- Chronic SNC Effluent Limit Violations
- Compliance assistance can be a more effective and economical way of achieving compliance and/or improving effluent quality since it does not cause an additional financial hardship. (legal fees and penalties)
**Our GOAL:** To improve the water quality of our streams, rivers, and lakes by providing compliance assistance to Small Municipal WWTPs.

**Our PURPOSE:** To not only assist small municipal systems in returning to compliance, but provide them with the tools and training to ensure sustained compliance in the future.
OVERVIEW OF INITIAL CONCEPTUAL PROGRAM DESIGN

1. TARGET MUNICIPAL SMALL SYSTEMS <3300 POPULATION W/CHRONIC SNC EFFLUENT VIOLATIONS

2. COMPREHENSIVE INITIAL EVALUATION

3. ASSESSMENT & IN DEPTH ON-SITE EVALUATION
   • Characterization/sizing of facility’s treatment units to evaluate capacities and O&M practices

4. IDENTIFY PERFORMANCE LIMITING FACTORS (PLFs)

5. DEVELOP MULTI – PHASED FACILITY SPECIFIC COMPLIANCE ACTION PLAN (FSCAP)
   • Coordinate both internal & external resources to provide assistance

6. MONITOR IMPLEMENTATION & EFFECTIVENESS OF FSCAP
MULTI – PHASED FACILITY SPECIFIC COMPLIANCE ASSISTANCE PLAN

PHASE I
- Low cost, economical solutions – training, and optimization of current treatment units
- Identify Performance Limiting Factors (PLFs), develop process control, optimize O&M and BMPs
- Option for Permit or Water Quality Stds Relief

PHASE II
- Low budget modifications and/or repairs that may be sufficient to optimize the facilities’ operations
- Assistance and information regarding potential funding sources will be provided to the facility

PHASE III
- Require more costly solutions, such as eliminating inflow and infiltration in their sewer system and/or modifying or adding additional treatment units
- Assistance and information regarding potential funding sources will be provided to the facility
- Engineering designs and improvements made to the facility in this phase will be the responsibility of the municipality
COMPONENTS OF FSCAP – Phase I:

1. Facility, Treatment and Compliance Overview
2. Regulatory Relief or Regionalization Options
   - Water Quality Standards relief
3. Recommended Compliance Action Plan
   - O & M improvements + BMPs
   - Process Control
   - Unit Process Sampling
   - Laboratory and Record Management
4. Training/Assistance
   - Operator
   - Reporting/Administrative
   - Asset Management
5. Potential Funding Sources
WHERE WE ARE & WHAT WE’VE LEARNED

• DMR POLLUTANT LOADING
• IMPROVED EFFLUENT QUALITY
• % IMPROVEMENT IN TREATMENT EFFICIENCY

• ESTABLISH BMPs and O&M per TREATMENT TECHNOLOGY
• PROCESS MODELING (SEE MODEL PROPOSAL)

• INADEQUATE TREATMENT TECHNOLOGY AT MANY SMALL SYSTEMS
• FINANCIAL HARDSHIP TO UPGRADE

• INADEQUATE TREATMENT TECHNOLOGY TO COMPLY
• COMPLIANCE IS NOT ONLY MEASURE OF PROGRAM SUCCESS

LOW POPULATION CORRELATES TO HIGH SNC EFFLUENT VIOS RATE

AUTOMATION AND STREAMLINING OF THIS PROCESS
NUMBER OF MINOR INDIVIDUAL NPDES PERMITS - (POTWs) WITH SNC EFFLUENT VIOLATIONS PER POPULATION
DRAFT - CONCEPTUAL SMALL SYSTEMS WASTEWATER PROCESS MODEL
Questions?
Thank you

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