

US EPA ARCHIVE DOCUMENT

January 5, 2000

Mr. Francis X. Lyons
Regional Administrator
United States Environmental
Protection Agency
Region 5
R-19J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. Lyons:

Subject: Local Pilot Pretreatment Program Proposal
Under Project XL

The Metropolitan Water Reclamation District of Greater Chicago (District) acknowledges receipt of your letter dated November 19, 1999 regarding the District's pilot pretreatment program proposal under Project XL (Proposal). In your letter, you indicated that the United States Environmental Protection Agency (USEPA) believes that the District's Proposal has great potential for furthering the goals of both Project XL and the National Pretreatment Program. You also requested additional information from the District to complete the USEPA's review of the Proposal and to determine whether the District's Proposal could be selected for Final Project Agreement (FPA) development.

Request

AFurther clarification regarding how the District envisions the Toxics Reduction Action Plan (TRAP) component of the project to be carried out, including how pollutants of interest would be identified, and the types of strategies that may be developed to address these pollutants. Examples of how the process could work where pollutants of interest are found primarily in either the industrial sector or other sectors would be useful.@

District Response

The District anticipates that the TRAP would be driven by a cooperative partnership with both the USEPA and the Illinois Environmental Protection Agency (IEPA). As part of the TRAP, the District would form a pollutant selection workgroup consisting of District staff and representatives from both the USEPA and the IEPA. The workgroup would initially identify no more than five pollutants of concern based on a number of factors, including (1) their detectable presence in the influent, effluent and biosolids at District water reclamation plants (WRP), (2) their detectable presence in and potential to adversely impact WRP receiving streams, (3) their potential to become regulated pollutants in National Pollutant Discharge Elimination System (NPDES) permits issued to District WRPs, and (4) their designation as pollutants of concern under national environmental policy initiatives such as the Great Lakes Initiative. It should be clear, however, that the TRAP is intended to address pollutants that are not currently subject to regulation under the NPDES Program and that the TRAP is not intended as a substitute for enforcement of either Categorical Pretreatment Standards or local limits developed under the National Pretreatment Program.

Because the pollutants selected under the TRAP would not be subject to traditional enforcement mechanisms, the District anticipates that it would be free to employ a variety of non-traditional strategies toward reducing emissions of these pollutants. Once pollutants have been selected by the workgroup, the District would conduct an information survey to identify the sources of the pollutants in the environment (e.g., industrial, commercial, and non-point) and the potential for reducing pollutant emissions to all media. Based on the survey results, the workgroup would establish initial pollutant reduction targets.

Pollutant reduction strategies would be dependent upon the sources and reduction technologies identified in the information survey. Some of the strategies that would be considered include: (1) pollution prevention outreach to industrial and commercial

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sources through the Greater Chicago Pollution Prevention Program, (2) consumer education programs and increased household hazardous waste collections, and (3) point source-point source effluent trading agreements.

Request

AFurther clarification as to how the District proposes to permit Categorical Industrial Users (CIU) that it determines to be xde minimis,= or non-significant.= In particular, how would the District identify and reflect changes at such facilities in permits?@

District Response

Since the time of the District=s transmittal of its draft FPA on June 8, 1999, the USEPA published its proposed rule (Rule) entitled AStreamlining the General Pretreatment Regulations for Existing and New Sources of Pollution@ (Federal Register 64 FR 39564, July 22, 1999). Included in the USEPA=s Rule was the creation of a new class of CIUs known as Anon-significant CIUs (NCIU).@

In their comments on the Rule, the District, the Association of Metropolitan Sewerage Agencies (AMSA) and the Water Environment Federation (WEF) all proposed a three-tiered CIU oversight strategy that incorporates both the USEPA=s NCIU definition and the District=s original NCIU definition. The District-AMSA-WEF NCIU definition is presented below:

AA non-significant CIU (NCIU) is defined as any industrial user subject to categorical pretreatment standards that meets all of the following conditions:

The discharge of process wastewater subject to Categorical Pretreatment Standards from the CIU does not exceed 0.01 percent of the design

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hydraulic capacity of the receiving POTW, nor does it exceed 10,000 gallons per day.

The discharge of process wastewater subject to Categorical Pretreatment Standards from the CIU does not exceed 0.01 percent of the design organic treatment capacity of the receiving POTW.

The discharge of process wastewater subject to Categorical Pretreatment Standards from the CIU does not exceed 0.01 percent of the maximum allowable headworks loading (MAHL) for the receiving POTW of any pollutant detected at the POTW headworks for which the CIU is subject to a Categorical Pretreatment Standard.

The CIU has not been in significant noncompliance with applicable effluent discharge standards for the most recent four consecutive six-month periods.

Conformance with the conditions set forth in the NCIU definition would be reassessed at least annually by the POTW. If a facility no longer qualifies for NCIU status because of a change in the nature of its operations or if the facility is found in significant noncompliance, the facility's status as a NCIU would be revoked and the facility would revert to full SIU status.@

Consistent with its comments on the USEPA's Rule, the District proposes to amend its Proposal to fully incorporate the District-AMSA-WEF non-significant CIU definition.

With regard to identifying operational changes at non-significant CIUs and incorporating those changes into NCIU permits, the District, AMSA and WEF also proposed a three-tiered oversight strategy for CIUs. This strategy is presented in the following table.

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	<u>De Minimis CIU</u>	<u>Non- Significant CIU</u>	<u>Full CIU</u>
<u>Qualification</u>	<u>No discharge of untreated categorical wastewater and <100 gpd other process wastewater discharge; or subject to certification requirements only</u>	<u><0.01% of POTW design flow, 0.01% of POTW headworks organic load, 0.01% of headworks load of categorically regulated pollutants, no SNC for four consecutive six-month periods</u>	<u>Subject to categorical pretreatment standards and not qualified as DCIU or NCIU</u>
<u>Permit length</u>	<u>Control Authority discretion</u>	<u>Non-expiring, subject to Control Authority review every five years</u>	<u>Five years</u>
<u>Self-monitoring requirements</u>	<u>Control Authority discretion</u>	<u>Once/year</u>	<u>Twice/year</u>
<u>Reporting requirements</u>	<u>Annual DCIU certification</u>	<u>Annual Periodic Compliance Report</u>	<u>Twice annual Period Compliance Report</u>
<u>Control Authority monitoring</u>	<u>Control Authority discretion</u>	<u>Once every two years</u>	<u>Annually</u>

Under the proposed three-tiered strategy, each CIU must submit a Compliance Report (or certification) at least annually, in which operational changes would be identified. In addition, the District would continue to inspect and sample each CIU and NCIU at least once every two years, to verify continued operational status. Finally, independent of CIU

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status, all industrial users under the District's jurisdiction are required by ordinance to report any changes in their operations to the District.

Request

AFurther clarification regarding both the compliance monitoring and self-monitoring the District proposes for Industrial Users (IU) that enter into Strategic Performance Partnerships. While the proposal indicates the District would continue to assess compliance with applicable pretreatment standards through appropriate effluent discharge monitoring, under what circumstances would a Partner Industrial User be required to conduct such monitoring, instead of or in addition to the agreed upon alternative performance expectations?@

District Response

As indicated in the District's Proposal, Strategic Performance Partnerships (Partnerships) are intended to allow top performing industrial users (Partners) to demonstrate the effectiveness of alternative performance measurement systems that could provide more frequent and/or more meaningful performance information at less cost to industrial users and Control Authorities. The Partnerships are not intended as a complete replacement for traditional effluent monitoring nor are they intended to provide for relaxation of any applicable Categorical Pretreatment Standards.

One example of alternative performance measurement that could be tested through Partnerships is the use of statistical process control monitoring as a surrogate for traditional effluent discharge monitoring. While traditional effluent discharge monitoring provides very accurate assessments of compliance with applicable discharge standards, such monitoring is relatively expensive and sample turn-around may take days to weeks, depending on the efficiency of the analytical laboratory used and the

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pollutants analyzed. Thus, traditional effluent discharge monitoring is performed at very low frequencies (generally not more than two percent of operating days) and is not useful as a means of improving environmental performance. However, industrial users, particularly top performing facilities, collect much more information regarding the efficiency and effectiveness of their industrial processes that may be useful as surrogate indicators of environmental performance.

In a Partnership to test the feasibility of statistical process control, the Partners would develop a process model of the industrial processes performed at the test facility and would identify process control points that could be monitored for various parameters as indicators of process efficiency and effectiveness. The Partners would conduct concurrent process control monitoring and effluent discharge monitoring to calibrate the process control range as a surrogate for in-compliance performance. Finally, the process control range would be constricted by a safety factor that considered both the variability of the industrial processes and the accuracy of the alternate measurement methods.

The District envisions that, while the Partner is operating within the process control range, continued process control monitoring by the Partner, along with periodic effluent discharge monitoring by the District, would be sufficient to ensure that the Partner is complying with applicable discharge standards. In the event that process control monitoring indicated that the Partner's industrial processes were operating outside the process control range, the Partner would be required to (1) notify of the District of the out-of-range condition, and (2) initiate traditional effluent discharge monitoring (at a pre-determined frequency established by the Partner and the District) until process control monitoring indicated that the industrial processes were operating within the control range. Because the control range would incorporate a safety factor, the District

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believes that this approach could effectively provide the Partner with an early warning system to preempt violations of discharge standards before they occur.

In your letter, you also raised several issues that would need to be addressed in the development of the FPA and the stakeholder process. These issues are discussed below.

Issue

AThe District will need to develop a detailed screening mechanism for determining which CIUs may be designated Ade minimis@ or Anon-significant@ CIUs.

District Response

The District believes that its existing industrial user screening survey and data currently in its files are sufficient to identify de minimis and non-significant CIUs, consistent with the criteria established in Table 1. As indicated in the District's draft FPA and in the District's proposed NCIU definition, designation as an NCIU would be subject to annual review by the District.

Issue

ASafeguards will need to be established to ensure that alternate measurement systems, such as process performance data, are functioning properly. Moreover, the District will need to ensure during this process that CIUs do not fall below current environmental performance standards. Therefore, the District will need to establish CIU baselines at the start of the program.

District Response

As indicated previously, the District expects that alternate performance measurement systems will incorporate acceptable control ranges. These acceptable control ranges will include safety factors that allow detection of trends toward noncompliance

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before noncompliance actually becomes manifest.
Exceedance of an acceptable control range will trigger both an investigation into the control range exceedance and traditional effluent monitoring until process operations return to the control range. The District believes that this type of approach is sufficient to ensure that CIUs do not fall below current environmental performance standards.

Issue

A clarification will need to be provided that any future categorical standards (e.g., Metal Products and Machinery) will apply to CIUs if the standard does not interfere with the District's XL project.@

District Response

The District included the provision to defer applicability of new Categorical Pretreatment Standards in its Proposal in consideration of the long-term commitment that industrial users would be expected to make on the Partnerships. This would be critical to continued Partnerships where new Categorical Pretreatment Standards may require technology investments that conflict with the goals of the Partnerships or other multi-media performance criteria such as the Metal Finishing Strategic Goals. The District agrees with the USEPA that, in instances where a new Categorical Pretreatment Standard does not interfere with the goals of a Partnership, there would be no reason to defer application of the Categorical Pretreatment Standards to the Partner.

Issue

A The District will need to identify with some specificity the superior environmental performance expected to result from the regulatory flexibility that it will receive from project implementation.@

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As indicated in the District's draft FPA, the requested regulatory flexibility regarding oversight of CIUs likely would not produce superior environmental performance in and of itself. However, the District's resources that would become available as a result of the requested flexibility would be diverted to other activities with the potential for superior environmental performance.

With regard to Partnerships, the District and its Partners would make the detailed results of Partnerships available to the USEPA for use in development of future Categorical Pretreatment Standards. With regard to TRAPs, the District believes that superior environmental performance would be directly measurable as reduced emissions of pollutants selected for TRAPs. As discussed earlier, the emission reduction target for each selected pollutant would be determined by the workgroup and the success of the TRAP would be measured by progress towards the emission reduction target.

Issue

AU.S. EPA would like to see the District develop a discussion in its proposal concerning worker health and safety issues related to the project, as well as a discussion of whether environmental justice issues exist.®

District Response

Since the District's Proposal does not seek to relax existing discharge standards or workplace safety requirements, the District does not believe that its Proposal detrimentally impacts worker health or safety in any way. To the contrary, since the regulatory flexibility sought by the District (reduced oversight of certain industrial users with minimal potential to impact the District's WRPs or the environment) would only be applicable to well-performing industrial users, the District believes that its Proposal would create a meaningful incentive for facility-wide

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performance improvements, including enhanced worker health and safety.

Further, the District believes that its Proposal would serve to advance environmental justice concerns by specifically looking at local environmental issues in establishing target pollutants for TRAPs.

Finally, in your letter you raised several additional procedural issues, based on comments made by the IEPA, that would need to be addressed during FPA development.

Issue

There was agreement that incorporation of an alternative Pretreatment Program to be implemented by the District could be accomplished through minor modification of any of the District's unexpired NPDES permits.

District Response

The District has no objection to incorporating the FPA as a minor modification to any of its NPDES permits.

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Issue

Whether non-regulatory stakeholders would be signatories to the FPA (see page 51 of the proposal).@

District Response

The District included this language in its draft FPA based on model FPA language provided to it by the USEPA. However, for simplicity in implementing the FPA, the District prefers that only the USEPA and the IEPA, as stakeholders with regulatory standing, be signatories to the FPA.

Issue

Specific language regarding termination of the project (see page 56 of the proposal).@

District Response

The District included this language in its draft FPA based on model FPA language provided to it by the USEPA. However, the District has no objection to incorporation of any language regarding termination procedures that is satisfactory to the USEPA, the IEPA and the District.

Issue

Less formal dispute resolution language.@

District Response

The District included this language in its draft FPA based on model FPA language provided to it by the USEPA. However, the District has no objection to incorporation of any language regarding dispute resolution procedures that is satisfactory to the USEPA, the IEPA and the District.

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Issue

AThe Illinois Pollution Control Board would need to be involved in any State level rulemaking that may be necessary to allow the District to implement an alternative XL project.@

District Response

The District is aware of the role that the Illinois Pollution Control Board (Board) plays in state rulemaking procedures and that the District's Proposal would need to be approved by the Board. The District also expects the assistance and support of the USEPA and the IEPA in bringing the District's Proposal to the Board.

Issue

AIf an IU is identified as a contributor of a pollutant identified through the TRAP process, that IU would need to agree to participate in the TRAP program to be eligible to receive regulatory flexibility established under the Project.@

District Response

The District agrees that industrial users that benefit from the regulatory flexibility sought under the District's Proposal must participate as full partners in all aspects of the Proposal, and agrees that the FPA would require this commitment on the part of industrial users to whom regulatory flexibility would become available.

We wish to thank you for this opportunity to provide additional information regarding the District's Proposal and look forward to the USEPA's selection of the District's Proposal for FPA development. If you have any additional questions regarding the comments contained herein or the District's Proposal, please contact Mr. Richard C. Sustich, Assistant Director of Research and Development, Industrial Waste Division, at (312) 751-3030.

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Very truly yours,

Richard Lanyon
Director
Research and Development

RL:RCS:rcs

cc: Hugh McMillan
Richard Sustich
James Park, IEPA
Roger Kanerva, IEPA