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Association of
Metropolitan
Sewerage Agencies

May 17, 2002

Geoff Grubbs
Director, Office of Science and Technology
U.S. Environmental Protection Agency
Ariel Rios Building (4301T)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Geoff:

As a follow up to our discussions with you and your staff over the past year regarding EPA's Effluent Limitations Guidelines (ELG) Program, members of the Association of Metropolitan Sewerage Agencies' (AMSA's) Pretreatment and Hazardous Waste Committee crafted a White Paper detailing our observations and recommendations regarding the future of the ELG program. The attached White Paper outlines our concerns with the current program and proffers a number of suggested actions EPA should take to improve the program.

As you know, AMSA's members are intimately familiar with the workings of the ELG program. After years of implementing categorical pretreatment standards, our members have gained a unique understanding of what works, what does not work, and how things can be improved. AMSA hopes the Agency considers these suggestions as it continues to think strategically about the ELG program and how it should be implemented in the future. Please feel free to contact me at 757/460-4220 or Chris Hornback, AMSA at 202/833-9106 if you should have any questions or would like to discuss these issues further.

Sincerely,

A handwritten signature in black ink, appearing to read "Guy M. Aydlett". The signature is fluid and cursive, written over a white background.

Guy Aydlett
Director, Water Quality, Hampton Roads Sanitation District
Chair, AMSA Pretreatment and Hazardous Committee

AMSA Letter to Geoff Grubbs

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cc: G. Tracy Mehan, III, Office of Water, U.S. EPA
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Association of
Metropolitan
Sewerage Agencies

White Paper
EPA's Effluent Limitations Guidelines Program

AMSA represents the interests of over 270 of the country's publicly-owned wastewater treatment agencies, which collectively serve the majority of the sewered population in the United States. Our members treat and reclaim more than 18 billion gallons of wastewater each day. AMSA member agencies play a major role in their local communities, often leading watershed management efforts, developing urban stormwater management programs, and promoting industrial/household pollution prevention and water conservation. For more than 30 years, AMSA has worked closely with the U.S. Environmental Protection Agency (EPA) to carry out numerous joint projects to improve environmental programs, including workshops, coalitions and publications. AMSA representatives have assisted the Agency in the negotiation of major Clean Water Act rules and continue to participate in efforts to help reshape the Effluent Limitations Guidelines Program. We look forward to continuing this cooperative approach in the future.

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White Paper Executive Summary

Since 1978, the U.S. Environmental Protection Agency (EPA or Agency) has promulgated effluent limitations guidelines (ELGs) for nearly every major industrial sector that is or might be a source of toxic pollutants. These technology-based guidelines have led to tremendous improvements in the quality of the nation's waters. However, while clean water priorities have begun to move towards watershed-based, holistic approaches, EPA continues to operate the ELG program as it did in 1978.

The array of tools available to clean water managers for controlling the release of pollutants into the nation's waters is now much broader than it was when the Clean Water Act was passed. For instance, publicly-owned wastewater agencies (POTWs) continue to expand their use of local limits to address site-specific pollution concerns. Local limits, which can be tailored to a particular pollutant and even an individual facility, can be more flexible and more innovative than national standards.

The Association of Metropolitan Sewerage Agencies' (AMSA's) members have been implementing the ELG program for over 20 years and have an understanding of how the program works, including what is effective and what is not effective, and have first-hand knowledge of how a new categorical pretreatment standard can impact an individual POTW. AMSA believes the ELG program must evolve to acknowledge that much has changed over the last two decades and supports EPA's efforts to reexamine the ELG program and its future.

AMSA's White Paper contains a number of recommended actions that EPA should take to improve the ELG program both in the near-term and in the future:

Administrative Reforms to the ELG Program

1. Make it a priority to involve the POTW community in the entire ELG planning and development process.
2. Acknowledge that the traditional command and control approach has its limitations and continue to explore how innovative approaches to environmental regulation can be injected into the current ELG program.

Interim Measures Requiring Resource Commitment

1. Review and revise those categorical pretreatment standards that no longer reflect current industry or POTW practices or technologies and may not provide any added benefit for POTWs or the environment. Convene a workgroup of EPA and POTW representatives to evaluate the existing standards and identify those that need revision.
2. Reexamine the fate of pollutants in modern wastewater treatment plants by conducting a new study to replace the outdated "50 POTW Study."

Future Actions to Align the ELG Program with EPA Watershed Priorities

1. EPA should recognize the key role of environmentally-driven local limits and should not expend resources to continue developing formulaic categorical pretreatment standards that ignore the critical role POTWs play on the local level.
2. Instead of developing additional categorical standards that duplicate the efforts of many POTWs, EPA should take on a more advisory role and provide guidance and assistance to small POTWs that may have difficulty implementing a pretreatment program.

Introduction

Section 304(g) of the Clean Water Act (CWA) requires EPA to publish pretreatment standards to address pollutants that are “not susceptible to treatment” by POTWs as follows:

304(g): “...the Administrator shall publish...and review at least annually...and, if appropriate revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent discharge...of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.”

Technology-based effluent guidelines and categorical pretreatment standards have served as key catalysts for improving the quality of the nation’s waters. Beginning with the electroplating guidelines in 1978, EPA has promulgated effluent guidelines for nearly every major industrial sector that is or might be a source of toxic pollutants.

While clean water priorities have begun to move towards watershed-based approaches and pretreatment programs continue to incorporate economically driven techniques such as source reduction, recycling, and pollution prevention, EPA continues to operate the ELG program as it did in 1978. Two of the ELGs EPA is currently developing – Metal Products and Machinery, and Meat and Poultry Products – have been widely criticized by industry and the POTW community alike for inaccuracies, overstated benefits, and lack of stakeholder involvement in the development process. These examples underscore the deficiencies in the current ELG program.

For the last ten years, EPA’s ELG program has operated within the boundaries of a consent decree, which was developed to settle a lawsuit filed against EPA by the Natural Resources Defense Council and Public Citizen. EPA has nearly completed its obligations under that agreement and has expressed interest in transforming the program to move away from the more reactive, deadline-driven mission of the past. AMSA agrees with the Agency that it is time to reexamine the mission of the ELG program. It is time for EPA to consider the role of the technology-based ELG program in the larger, water quality-based context in which the rest of EPA’s clean water programs operate. The ELG program can and must adapt to reflect the dramatic changes of the past 20 years.

Local Limits: An Environmentally-Driven Approach

In 1981, EPA’s General Pretreatment Regulations established standards for developing POTW pretreatment programs. POTWs with a total design flow greater than 5 million gallons per day that receive pollutants from industrial users that pass through or interfere with the operation of the POTW, or are otherwise subject to pretreatment standards, are required to develop a pretreatment program (40 CFR 403.8(a)). 40 CFR 403.5(c) requires POTWs with a pretreatment program to develop and enforce specific limits (local limits) for industrial users to ensure compliance with the POTW’s particular environmental endpoints, including National Pollutant Discharge Elimination System (NPDES) permit limits and biosolids use or disposal practices. These regulatory provisions enable POTWs to create their own, tailored set of pretreatment standards to prevent pass through and interference

events. Unlike national categorical pretreatment standards that apply without regard to site-specific conditions, local limits are developed to respond to site-specific pollution concerns.

Local limits have become one of the most versatile tools POTWs have for addressing regional and local environmental issues, such as total maximum daily loads (TMDL) for impaired waterbodies. In fact, local limits have already proven more flexible and effective than federally mandated categorical pretreatment standards. While EPA worked to establish categorical pretreatment standards for many industry sectors, POTWs were using local limits to prevent pass through and interference and were able to mount a quick and proportionate response based on local needs. Local limits have been, and continue to be, highly effective.

Furthermore, local limits go well beyond ensuring compliance with NPDES permit requirements and biosolids criteria. POTWs must also consider air emission standards, drinking water resource protection, worker health/workplace safety criteria, regional initiatives, and other environmental drivers when developing local limits. Local limits are not restricted to an industrial category or limited by the list of priority pollutants or existing water quality standards. Instead, local limits are driven by the need to protect the POTW, meet regulatory and statutory requirements, respond to emerging contaminants, and most importantly protect human health and the environment. While the ELG program imposes rigid national standards that do not account for site specific conditions, in contrast, local limits offer innovative solutions that can adapt to changing needs at the community level.

Time to Modernize the ELG Program

For many years categorical pretreatment standards and POTW-specific local limits comprised a successful formula for water quality protection, together making tremendous improvements in the quality of the nation's waters. However, it is now time for EPA's ELG program to recognize that conditions have changed. It is time for this program to take a positive step forward towards the future.

Despite its successes, the ELG program has turned into an administrative burden for many of the stakeholders it was designed to assist. What was once viewed by the POTW community as an important supplement to local limits now has become an imposition on wastewater agency budgets and resources. With each new pretreatment standard, POTWs must take a number of administrative actions, from identifying users that fit within a category, to permitting those industrial users, to the ongoing activities of monitoring and reporting for associated users. These actions are required whether or not the POTW already has a local limit in place for that industry or a particular pollutant. In fact, POTWs are required to implement the categorical pretreatment standard as if they had no local limits. Such an approach is duplicative and wasteful.

The ELG program was originally designed to quickly address toxic pollutant issues throughout the country and to create a level playing field for all dischargers by establishing limits that were technically achievable. While these technology-driven limits have helped level the playing field and reduce quantities of incompatible pollutants, categorical pretreatment standards are not capable of looking beyond end-of-pipe controls to evaluate what impact they are having on water quality. The ELG program must now evolve to

acknowledge the shift in clean water priorities away from simply removing pollutants for removal sake towards a more holistic, water quality-based approach.

Administrative Reforms to the ELG Program

While changes to the underlying principles of the ELG program may require modification of the CWA, there are a number of issues that can be addressed now without the need to make major policy shifts or statutory changes.

1. The current ELG development process does not adequately involve the stakeholders with the most expertise and interest in pretreatment standards. EPA must make it a priority to involve the POTW community in every phase of planning and standards development. This can best be accomplished through small group discussions with experts in the field early in the process, rather than large public meetings after a rule has been proposed, which is the current forum used by EPA to solicit input on ELGs. Without POTW involvement, the ELG program tends to lose site of one of its objectives, to “prevent [the] discharge...of any pollutant which interferes with, passes through, or otherwise is incompatible with” POTWs. Precious EPA resources could be conserved by engaging the POTW community earlier in the process to ascertain whether additional standards are even needed or to determine if there is a better approach.
2. Currently, the ELG program relies heavily on command and control principals, dictating limits that must be met to maintain compliance, and providing little incentive for innovation. At the same time, other EPA program offices and industry groups are actively exploring voluntary programs, such as environmental management systems (EMS), to help them actively manage their environmental activities rather than simply reacting to each new regulatory control. In addition, EPA has approved individual POTW XL projects to explore innovative methods for implementing pretreatment programs. Current initiatives like the Strategic Goals Program for the metal finishing industry are demonstrating that voluntary, incentive-based programs can move beyond simple regulatory compliance and remove the burdens of a traditional regulatory program. EPA should acknowledge that the traditional command and control approach to environmental regulation has its limitations and continue to explore how these innovative approaches can be injected into the current ELG program.

Interim Measures for Improving the Current ELG Program

There are several interim measures that also can be taken to improve the ELG program within the context of EPA’s current authority under the CWA. While these may take the commitment of additional resources to implement, AMSA believes these measures are critical to ensuring the existing standards continue to provide a meaningful level of protection.

1. EPA should review and revise the existing categorical pretreatment standards that no longer reflect current industry or POTW practices or technologies and may not provide any added protection for POTWs. In some cases, existing standards may

require monitoring for pollutants that are simply not present or require the removal of pollutants that pose no threat to the POTW. In addition, there are numerous implementation issues for many of the older guidelines that could benefit from updates or revisions.

One example of a guideline that requires revision is the Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) effluent guideline. Among other things, the OCPSF pretreatment standards require the removal of pollutants that pose no problems for POTWs, including 2-nitrophenol and 4-nitrophenol, and the design of the standards discourages dischargers from implementing water conservation measures. Furthermore, the pretreatment standards for the Coil Coating category contain limits for constituents of little concern, such as fluoride, phosphorus, and manganese. Still other guidelines were developed using a limited amount of sampling data, such as the Centralized Waste Treatment guidelines.

AMSA recommends that EPA convene a workgroup of EPA and POTW representatives to evaluate the existing standards and identify those that need revision. The workgroup would then review those guidelines and provide EPA with a list of the needed changes. The workgroup would also be tasked with reevaluating the list of priority and other pollutants in existing guidelines and identifying those pollutants that are easily treated or removed by POTWs.

2. EPA should reexamine the fate of pollutants in modern wastewater treatment plants. AMSA and EPA agree that a significant part of the problem with today's ELG program is the outdated "50 POTW Study" (*Fate of Priority Pollutants in Publicly Owned Treatment Works*, September 1982), the underlying basis for determining which pollutants must be regulated under the current categorical pretreatment standards. AMSA is committed to helping EPA conduct a new study to ensure that any effort to revisit the existing standards will reflect reductions in pollutants entering POTWs as well as the effectiveness of modern POTWs at removing pollutants. A new study will also need to account for the success of POTW pretreatment programs and acknowledge that many pollutants enter and exit POTWs at levels below detection.

AMSA's Vision for the Future

When the CWA was enacted in 1972, the nation clearly needed a set of national performance standards to launch both dischargers and regulators alike down the path of environmental progress. Today, however, both our understanding of the water environment and the tools needed to best manage it are far more sophisticated than they were 30 years ago.

EPA has demonstrated its full commitment to watershed management as the single most powerful concept for further progress in the water arena, and the ELG program must evolve to fit into this larger programmatic context. AMSA is committed to finding ways to improve the program within the current CWA framework and will pursue the changes necessary to ensure that water quality is the ultimate driver for additional environmental regulations.

Specifically, AMSA recommends EPA consider the following as it examines the future role of the ELG program:

1. EPA must recognize the key role environmentally-driven local limits have in addressing regional and local water quality problems. To this end, EPA should not expend resources to continue developing formulaic categorical pretreatment standards that ignore the critical role POTWs play on the local level in developing standards to protect treatment operations and the environment. The ELG program should instead focus its efforts on ensuring that the existing standards provide meaningful environmental benefit. In those cases where existing standards are shown to have no environmental benefit or have been effectively addressed by POTW local limits, EPA should initiate efforts to sunset those regulations. EPA must look for ways both within and beyond its current authority to make these suggested changes a reality.
2. While reliance on local limits is a reality today for many POTWs, AMSA acknowledges EPA's concern that some small POTWs may face unique challenges in implementing a pretreatment program and developing local limits. Small POTWs that have difficulty implementing pretreatment requirements need assistance and guidance so that they may enhance their resources and capabilities. Additional categorical pretreatment standards, however, will only further burden the already strained resources of these small agencies. AMSA believes EPA and Approval Authority resources would be better spent on providing assistance to these small POTWs rather than on developing new effluent guidelines. Such an approach would focus Agency attention where it is most needed to address environmental impacts and ensure that POTWs operating mature pretreatment programs do not expend precious resources to enforce duplicative categorical standards and other pretreatment program requirements.

By providing assistance rather than additional regulations, EPA's current role as regulator would evolve into a more advisory one. Without pressure to develop new categorical pretreatment standards, additional resources could be committed to exploring new ways of providing guidance and assistance to POTWs. For example, EPA could leverage some of its ELG resources in coordination with other Agency offices to identify emerging pollutants of concern. These efforts could draw on the institutional knowledge of the existing staff to then link those pollutants to sources (either point or nonpoint) and evaluate the potential impacts. With this information in hand, EPA could provide guidance to the nation's POTWs to assess the need for local controls on the pollutants of concern with consideration given to permit limits, any established TMDLs, and the ultimate impact on water quality standards attainment. EPA could also provide assistance with enforcement actions to help small POTWs bring industries into compliance with standards.

The benefits of moving away from a national, one-size-fits-all approach, to the tailored local limits process would be enormous. EPA and the appropriate stakeholders must continue to look for ways to make this happen within the current CWA framework and continue to explore changes to EPA's mandate under the statute.

Conclusion

EPA must begin to modify its ELG program activities to acknowledge the accomplishments of its regulatory partners on the local level. The details of what should be done with the existing program and the limits of EPA's authority to make the needed changes are all variables in the equation. Nevertheless, virtually every stakeholder would agree that changes need to be made. The existing development process must be more transparent and include the stakeholders it was designed to protect. The program must further acknowledge alternatives to the traditional command and control approach. The existing standards must be reviewed and updated as needed. Ultimately, the program will be forced to change. As TMDLs take hold and more and more permits are issued with water quality based effluent limits, and as POTWs continue to develop additional local limits, technology-based standards will simply cease to be a driver for environmental protection.