



Department of Energy
Washington, DC

FEB 2 2001

W-00-31 Comment Clerk
Water Docket (MC 4101)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20450

Dear Sir or Madam:

The purpose of this letter is to provide comments to the Environmental Protection Agency (EPA) on the *Notice of Request for Comments on State, Regulated Community, and Small Business Cost Resulting From the TMDL Program*, published in the Federal Register on December 4, 2000. The proposed revisions to the total maximum daily load (TMDL) program issued in July 2000 are intended to help states and EPA in developing and implementing TMDLs. Congress directed EPA to conduct a comprehensive assessment of state and regulated community costs related to TMDLs, to solicit comments from the states and general public on these costs, and to present the results of the study to Congress within 120 days of the signing of the fiscal year 2001 appropriation bill. The Department agrees that standards are necessary to protect public health and safety. However, these standards should be based on validated data, sound economic analysis, have a reasonable expectation of producing a measured improvement commensurate with the costs and are attainable with reasonable cost and existing technology.

The cost to the regulated community, including Department of Energy (DOE) facilities, for complying with the revised TMDL program is an issue of concern. With over sixty-nine facilities in twenty-seven states across the nation, this rulemaking, as proposed, will have a significant impact on DOE operations. We feel that EPA did not adequately consider the cost that other Federal agencies might incur as a result of the proposed TMDL regulations. A case in point is the potential costs of attempting to comply with the proposed mercury TMDL at the DOE Savannah River Site. The compliance cost is estimated to exceed the \$100 million level defined in Executive Order 12866 as a significant regulatory action. The Department is concerned that some watershed specific TMDL programs may represent significant regulatory action and require an Office of Management and Budget review. The Department also believes these figures support our recommendation that EPA implement the TMDL program in a manner that will ensure compliance costs are commensurate with the environmental benefits to be achieved.

The General Accounting Office's (GAO) report, "*Clean Water Act: Proposed Revisions to EPA Regulations to Clean Up Polluted Waters*" assesses (1) the reasonableness of EPA's economic analyses for the two proposed regulations and (2) whether EPA's

determinations under the Unfunded Mandates Reform Act of 1995 and the Regulatory Flexibility Act were adequately supported. In summary, the report found limitations with EPA's economic analyses of the proposed regulations for the TMDL and national pollutant elimination discharge system (NPDES) programs that raise questions about their reasonableness and about the determinations that EPA has based on them. The Department generally agrees with the GAO conclusions regarding the TMDL program and believes that they should be addressed in EPA's final regulations.

The Department appreciates EPA's consideration of these comments. The designated staff person regarding this subject is Lois Thompson. If there are questions regarding these comments, please contact Ms. Thompson at (202) 586-9581 or by e-mail at lois.thompson@eh.doe.gov.

Sincerely,
(signed)

Andy Lawrence
Director
Office of Environmental Policy and Guidance

Enclosure

U.S. Department of Energy
Comments on
Notice of Request for Comments on State, Regulated Community
And Small Business Cost Resulting From the TMDL Program
Federal Register December 4, 2000

The U.S. Department of Energy (DOE) has reviewed the notice of request for comments on the cost resulting from the total maximum daily load (TMDL) program. We are providing the following comments relating to concerns regarding the cost of the TMDL program; the potential benefits; the need for flexibility and consistency and the potential impact on remedial action sites.

In general, because the program requires a case-by-case watershed approach to the development of TMDLs (which the Department supports) and because that process has not been completed for most watersheds affected by DOE sites, we have very little specific cost information to provide the Agency. In the one case where we do have sufficient analyses, potential cost impacts are substantial and the potential benefits that they are likely to produce are minimal. As such, we are concerned that implementation of the TMDL program that may result in significant expenditures of resources without commensurate environmental or public health benefit.

However, given the Department's comparison of specific data on pollutants (e.g., levels, sources, fate, transport and uptake) in different watersheds, we are convinced that EPA's watershed-specific approach is appropriate. As such, we recognize that it is not possible for EPA to develop specific national requirements that will ensure cost-effective protective limits; however, it should be possible for EPA to provide guidance or direction to the states and regions that will help ensure that the costs and benefits of the TMDL program-based requirements are appropriately balanced and implemented in a flexible yet protective manner. The process should require use of good science with full assessments of uncertainty and the consideration of cost/benefit; encourage innovative approaches, use of best management practices and consider effluent trading. It should be implemented using an Environmental Management System (EMS) approach to watershed management. Consistent with EMS processes, the states or regions should establish programs that incorporate elements of planning (to identify how the environment is affected, to establish goals and targets for reducing impacts focusing on the most cost-beneficial reductions first and programs for tracking performance); implementation (working with the regulated community to implement measures to achieve the goals or targets in the most effective manner); checking and corrective action (establishing ways to monitor success, identify and implement any needed corrective actions including reducing burden on point source dischargers if it becomes clear that they are not significant contributors to the problems); and review (toward continuous improvement, recognizing the need for cost-effectiveness). Although, given the great uncertainties associated with watershed-specific TMDL programs, it is not possible to assess overall costs and benefits of the programs, the Department feels that potential impacts could be

minimized and benefits maximized if EPA were to develop guidance or direction that recognizes the need to appropriately identify priorities, consider cost and benefit, provide for flexibility and credit for innovation and conduct evaluations to periodically reassess requirements to ensure they are and continue to be necessary, effective and beneficial.

Specific Comments:

Cost-effectiveness of providing procedural flexibility

The Department recognizes that national consistency is not possible (and may not be desirable) at this point since states and EPA regions are attempting to select the best method for attaining compliance. In this regard, providing as much flexibility in establishing the schedule and alternative pollution prevention strategies (e.g., best management practices) used by dischargers for achieving compliance is critical for a successful TMDL program.

Although some states and regions offer limited amounts of flexibility within their TMDLs (e.g., providing options to achieve TMDL at the end-of-the-pipe, or to characterize pollutants, evaluate data, develop pollution-prevention/minimization plans if discharges exceed TMDL, and adopt new effluent levels), additional flexibility should be considered and recognized as integral to the TMDL process. For example, EPA has actively supported and strongly promoted the use of effluent trading to achieve water quality objectives and standards. DOE supports the use of effluent trading that entails installing or significantly improving control technologies at pollutant sources that are subject to minimal (if any) effluent or emission controls to offset effluents/emissions from sources that are already using Best Available Control Technologies (BACT) or Maximum Achievable Control Technologies (MACT). This approach offers key stakeholders an opportunity to find common sense, innovative ways to meet water quality standards quicker and at less overall cost than with traditional approaches alone, while ensuring waterbodies achieve water quality objectives, including water quality standards. However, in our review of proposed and final TMDLs, however, we did not find the integration of effluent trading as an option for complying with TMDLs.

As another example, atmospheric sources have been found to contribute as much as 99% of certain pollutants (e.g., mercury). Since TMDLs represent a holistic snapshot of an impaired waterbody and its loadings, it would appear that controlling air emissions (for an impairing pollutant) from sources that fall within the purview of Clean Air Act regulation offers another opportunity for complying with TMDLs. It is unclear, however, whether EPA considered the cost-effectiveness of integrating air emissions trading to offset water effluent discharges. In addition, DOE urges EPA to conduct more research into the causes and solutions for waterbody impairments due to atmospheric deposition and investigate other sources of mercury such as “natural sources” found in the soil and sediment which may impact the mercury loading in a waterbody.

Finally, watershed management involves cross-media environmental effects that DOE sites are currently working towards minimizing. The TMDL program needs to consider the indirect impacts it will have on ongoing cross-media programs, e.g., how to measure impacts and monitor changes in light of the cost and benefits.

Consideration of costs and benefits in view of the potentially significant impacts of the TMDL criteria

Watershed management presents a new and dynamic set of challenges in the environmental compliance area. The process of estimating current loads, calculating allowable loads, identifying the various actors along an impaired waterbody, and allocating loads between the various pollutant sources is an important process that has significant ramifications and requires sophisticated modeling and analyses. Since computerized watershed (including air deposition) models are expected to vary state-by-state, DOE, with multi-facility operators, may encounter issues regarding the reasonableness of assumptions and uncertainties of State-selected models. In this case, DOE requests that EPA play a proactive role in assisting states in evaluating and selecting models so as to minimize potential methodological inconsistencies across the country. DOE intends on cooperating fully with state agencies in meeting TMDL schedules and goals, and EPA's active involvement should reduce the overall cost of complying with TMDL development and implementation for DOE and other multi-site Federal agencies.

Establishing a specific standard must take into account what is achievable using existing technologies, methodologies, and policies, such as best management practices. For example, the DOE/Savannah River compliance cost of the proposed mercury TMDL for portions of the Savannah River it is estimated to exceed \$100 million. These costs would be in addition to those incurred by private sector facilities with outfalls to the Savannah River. This is one DOE site, and one waterbody. If this is an average cost for compliance, the total costs for TMDL compliance may not be possible in light of budget limitations. DOE recommends that EPA consider phased scheduling for compliance as a reasonable approach for compliance that considers the cost and benefits of the TMDL program over time. In some instances, avenues for relief from establishing the water quality criteria and/or the schedule for compliance should be considered at the state level.

The availability of technology needs to be factored into TMDL analyses. A successful treatment technology, or non-treatment method for effluent, even at the bench scale, has yet to be demonstrated for some pollutants under consideration, and it is uncertain whether technology or techniques exist or are readily available. The full life-cycle cost of operating an industrial facility, including new treatment requirements and associated multi-media effects must be taken into account.

Some potential problems and impacts are apparent with recent mercury TMDL regulations proposed for the Savannah River. The Department agrees that mercury in the environment is a concern because exposure to mercury can have potentially significant

impacts to human health, its existence in and release to the environment is a national concern. DOE supports standards that are necessary to protect public health and safety. However, limited data shows levels of mercury in Savannah River are well within the water quality standard, so the river should not be considered “impaired.” Further, the proposed TMDL places limits on point sources which are negligible when compared to non-point sources such as air deposition. Thus, we believe that any attempt to achieve these proposed limits with today's technology for controlling point source discharges would be cost prohibitive with essentially minimal environmental benefit.

The need for consistency and flexibility in the TMDL program

Watershed management and determining water quality criteria for segments of waterbodies involve tremendous uncertainties and data limitations. For example, affected states and EPA regions will have to predict changes in emissions from sources across a 50-100 square mile area over several years and how that affects waterbodies surrounding DOE sites across the country. EPA regions will have to play a lead role in assisting state agencies in utilizing the best data gathering and monitoring methods for human health assessments, evaluating bioaccumulation effects of toxics, making risk-based calculations, utilizing air deposition runoff models, and collecting and evaluating sediment data. The Department believes there should be national consistency grounded in a broad range of peer-reviewed models to ensure that scientifically valid approaches are applied.

Application of TMDL at Remedial Action Site

Inflexible, inconsistent application and interpretation of TMDLs could result in cost-prohibitive completion of tasks, particularly with regard to environmental restoration sites (e.g., temporary exceedence of a TMDL during remedial action may be required in order to accomplish a long-term, positive effect). The July 2000 regulations, and any implementing guidance, should well define and integrate other regulatory requirements, including remedial action requirements under the Comprehensive Environmental Response, Compensation, and Liability Act; the Resource Conservation and Recovery Act; and the Uranium Mill Tailings Radiation Control Act. As noted in our general comment, DOE believes EPA guidance regarding implementation using an EMS-type approach may be a viable means of accomplishing this integration.