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Water

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Program Requirements Memoranda

Municipal Wastewater Treatment Works Construction Grants Program

MCD—02.8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAM OPERATIONS
WASHINGTON, D.C. 20460

NOTICE TO ALL HOLDERS OF THE EPA
MUNICIPAL WASTEWATER TREATMENT WORKS
CONSTRUCTION GRANTS PROGRAM MANUAL OF REFERENCES (MCD-02)

Because the material contained in the "Manual of References" is obsolete, further printing and distribution will cease. However, the program policy documents incorporated in that manual, and subsequently updated by the publication of supplemental issuances of new and revised Program Requirements Memoranda (PRMs), will continue to be made available to that segment of the public involved in various aspects of the Construction Grants Program. Hence, holders of the MCD-02 will continue to receive copies of Program Requirements Memoranda (MCD-02.00) as they are printed. So that PRM recipients are kept apprised of the completeness of their policy document library, a full index of PRMs issued will be included with each printing.

Municipal Wastewater Treatment Works
Construction Grants Program

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SUBJECT: Grant Funding of Projects Requiring Treatment More Stringent than Secondary

Construction Grants Program Requirements Memorandum PRM #79-7

FROM: Thomas C. Jorling
Assistant Administrator for Water and Waste Management (WH-556)

TO: Water Division Directors, Regions I-X

MAR 9 1979

Purpose

This memorandum sets forth Agency policy and procedures for Headquarters and regional review of wastewater treatment projects designed to meet effluent requirements more stringent than secondary treatment. It also groups such projects into two categories--advanced secondary treatment (AST) and advanced waste treatment (AWT) and defines these terms. In addition, this memorandum provides a standard for reviewing the financial impact of advanced projects upon small communities.

We anticipate that the review process will result in the development of improved national guidance on wasteload allocations and the water quality standards-setting process. Thus, these review requirements will be supplemented in the future by such guidance.

Discussion

The Agency has in the past expressed growing concern with the high cost and energy consumption of publicly-owned treatment works in many communities. These high costs and energy demands are frequently attributable to optimistic projections of anticipated growth or sophisticated extra unit processes. Funding facilities with these conditions with limited grant funds results in fewer projects being funded overall, delay in accomplishing basic secondary treatment goals, and, particularly in smaller communities, the financial burden of high operation and maintenance as well as construction costs.

Consequently, the Agency has to take a hard look at the number and types of projects that are planned for treatment more stringent than secondary to achieve the Clean Water Act goals. Regions and States are reminded in this connection of the checklist procedure for all Step 2 and Step 3 projects that was instituted in the June 8, 1978, joint memo from Rhett/Davis. The checklist procedure and the independent justification described in the following sections are meant to supplement, not replace, the review of cost-effectiveness and appropriateness of facility design normally given to projects.

In action approving the FY 79 appropriation for the Construction Grants Program, the Appropriations Conference Committee agreed "that grant funds may be used for construction of new facilities providing treatment greater than secondary...only if the incremental cost of the advanced treatment is $1 million or less, or if the Administrator personally determines that advanced treatment is required and will definitely result in significant water quality and public health improvements."

All advanced projects with an incremental capital cost over $1 million that are recommended for funding by the regions or States must be reviewed at EPA Headquarters after completion of basic facility plan review and collection of supplementary materials by the regions or States. All other projects more stringent than secondary but with an incremental capital cost of $1 million or less shall receive a comparably intensive review at the regional/State level.

Clarification is needed for terminology used in review of projects. The Agency has defined secondary treatment as a treatment level meeting effluent limitations for Biochemical Oxygen Demand (BOD) and Suspended Solids (SS) of 30/30 mg/l on a maximum monthly average basis or 85 percent removal of these parameters, whichever is more stringent. The group of projects requiring treatment more stringent than secondary can be divided into two groups: advanced secondary treatment (AST) and AWT.

To arrive at the above distinctions the Agency reviewed about 6,300 projects shown in the 1976 Needs Survey as requiring treatment more stringent than secondary. Of the 6,300, 1,200 projects as yet unbuilt will be required to meet very stringent levels of treatment of BOD less than 10 mg/l and/or nitrogen removal. Additional analysis by the Agency showed distinct cost increases and shifts to more sophisticated technology to achieve these levels. Therefore, the popularized term "AWT" should only be used to refer to treatment levels providing for maximum monthly average BOD/SS less than 10 mg/l and/or total nitrogen removal of greater than 50 percent. ("Total Nitrogen removal" = TKN plus nitrite+nitrate). These projects are subject to especially intensive review and require independent justification. Other projects requiring treatment more stringent than secondary but not to AWT levels can be referred to as "advanced secondary treatment." Review procedures for these projects are somewhat less rigorous.

A treatment facility designed to meet effluent limitations of BOD/SS 30/30 mg/l or 85 percent removal with just disinfection processes shall be considered as a secondary rather than advanced secondary treatment facility for purposes of this PRM. Other definitions of secondary treatment (e.g., 25/30 or 20/20) may be used if included in approved State criteria, if secondary treatment technologies would be used to achieve these levels, and if any extra costs (present worth) beyond those for meeting 30/30 limits would be a very small percentage of the present worth costs of the entire treatment facility. Secondary treatment facilities with just phosphorus removal add-ons with a capital cost more

than $1 million and derived from the international agreement for the Great Lakes basin shall be considered advanced secondary, but not subject to Headquarters review.

The policy of the Agency is to encourage land treatment facilities and other alternative technologies which provide for reuse of wastewater or recycling of nutrients and other pollutants. Such projects usually afford water quality enhancement beyond the minimum established in permits, and water management benefits as well. Accordingly, where land treatment or other reuse/recycling technologies are designed to meet effluent limitations more stringent than secondary, the procedures herein would allow such projects to proceed without special review unless their costs were found to be excessive. Excessive costs are defined as those which would exceed the high cost criterion presented in section 3 of this memorandum or the average present worth costs of AST and AWT projects (roughly estimated at 25 percent above secondary for the former category and 50 percent for the latter).

Some AWT projects, particularly those featuring waste stabilization ponds plus filtration, may not cost more than AST projects. Thus, AWT projects with a present worth cost not exceeding that for secondary treatment by more than 25 percent may be reviewed under procedures established herein for AST projects.

The cost of treatment - secondary as well as more stringent than secondary - can have severe local fiscal impacts. The latest Title II regulations give more emphasis to alternative or individual systems and require a cost-effectiveness analysis that could result in lower project costs, especially to small communities. This emphasis, along with increased review, should help ensure that projects with excessive capacity for growth or unnecessarily designed to meet effluent requirements more stringent than secondary, with capital or operations and maintenance costs that may place an intolerable financial burden upon the community, do not receive grant funds.

Additional guidance on coordination of reviews of advanced treatment projects with the interim municipal enforcement policy will be developed in conjunction with the EPA Office of Water Enforcement.

Policy

The Agency will conduct a rigorous review of projects designed for treatment more stringent than secondary. The incremental additional capital costs of a project that are attributable to effluent limitations or water quality requirements more stringent than secondary must be based on a justification showing significant receiving water quality improvement and mitigation of public health problems where they exist. In addition, projects requiring treatment more stringent than secondary should be evaluated for their financial impact upon the community. Also, the inflationary costs for delay should be considered in project

reviews. The regions will review all such projects. They will decide how to proceed in accordance with this PRM for projects having incremental costs beyond secondary of $1 million or less, and for other projects explicitly designated in this PRM for final regional decision. Headquarters review and decision on how to proceed will follow preliminary regional review for the remaining projects with incremental capital costs beyond secondary greater than $1 million.

For projects with an incremental cost of $1 million or less, the review is a delegable function under the 205(g) delegation agreements. For projects with an incremental cost of greater than $1 million, States may do the initial review but regions must concur with the State's conclusions before transmitting the project to Headquarters.

Beginning in FY 1980, the delegation of that group of project reviews now conducted by Headquarters to those regional offices demonstrating capability to perform such reviews well will be considered.

Review of the projects should proceed as outlined below:

Procedure

Preliminary steps in the review should be 1) determination of the explicit effluent requirements for the project and identification as secondary, advanced secondary or AWT, and 2) determination of incremental capital cost of advanced treatment as more or less than $1 million.

1. Review of Projects Identified as AST

If a project is identified as having to meet advanced secondary treatment standards (more stringent than secondary but not AWT), the checklist should be used to review the project.

For project approval, the review must determine that:

1. seasonal operation has been evaluated;

2. the land treatment alternative has been considered; and

3. the advanced secondary portions of the project will definitely result in significant water quality improvements and mitigation of public health problems where they exist.

Reviews of project costs and local financial impacts must comply with section 3. If the checklist review demonstrates that the required level of treatment is not well justified, Federal funding of all or part of the project should be postponed until the project is redesigned (if necessary) or the level of treatment is fully justified.

If the project involves land treatment or other innovative/alternative technologies featuring wastewater reuse or recycling of pollutants, does not exceed the high cost criterion given in section 3 below and its incremental present worth cost does not exceed 25 percent of the cost of a new secondary treatment plant, then the project should proceed without further review. If the project does exceed the high cost or present worth criteria, the procedures prescribed herein for AST projects shall apply.

a. Incremental cost of AST is $1 million or less.

Regions should follow the criteria and procedures given above. The decision will be made at the regional level.

b. Incremental cost of AST is greater than $1 million.

If, after the above review, the Regional Administrator wants to proceed with funding, the project must receive approval from the Administrator in EPA Headquarters. The following material should be sent to the Office of Water Program Operations: attention Michael B. Cook, USEPA, Facility Requirements Division (WH 595), 401 M Street, S.W., Washington, D.C. 20460, telephone (202) 426-9404, for final review and approval:

(1) facility plan (draft or final) including supporting documentation on alternatives considered with region's review and comments;
(2) completed checklist with detailed answers to supplement checked responses;
(3) region's evaluation of water quality and public health benefits that will result from advanced secondary treatment based upon data submitted concerning the project;
(4) region's evaluation of seasonal operation of AST portion of project; and
(5) the major documents summarizing the establishment of water quality standards and effluent limitations for the project.

Headquarters has developed procedures for the internal review of advanced secondary projects which rely heavily upon regional/State evaluations. Advanced secondary projects without complex issues are expected to be reviewed within 25 working days of receipt of the project at Headquarters.

2. Review of Projects Identified as AWT

Regions should assist grantees and the State in developing the data needed for an independent justification of AWT. This should include at a minimum:

(1) facility plan (draft or final) and supporting documents, particularly on alternatives considered with region's review and comments.

(2) completed checklist with detailed answers to supplement checked responses;

(3) region's evaluation of water quality and public health benefits that will result from both secondary treatment and the additional treatment beyond secondary based upon data submitted for the project;

(4) the major documents summarizing the establishment of water quality standards and effluent limitations for the project;

(5) an identification and review of the need for each proposed unit process included in the proposed treatment facility for meeting the effluent limitation identified in item (4). Particular attention should be given to an assessment of the impact on beneficial uses of dropping one or a few treatment processes (or redesigning one or more treatment processes to provide a lesser degree of treatment) and the cost savings associated with these options:

(6) a detailed review of land treatment and seasonal operation alternatives; and

(7) if the item 5 and 6 review indicates a more cost-effective option, an estimate for the 20-year planning period of the capital, operation and maintenance, and total present worth costs of that option.

The review of an AWT project must determine whether the project meets all of the following criteria:

(1) The beneficial uses established for the receiving water can be attained or, if not, lesser uses can be achieved when the effluent limits are met, and industrial sources meet their pretreatment and permit conditions. Where Best Management Practices for nonpoint source control are required to achieve standards not now being attained, these controls must be in place or part of a draft or an EPA approved water quality management plan. The differences must be significant between water quality and beneficial uses attained or enhanced by the proposed project compared with water quality and uses attainable from the project with one or a few treatment processes beyond secondary dropped or modified and with less stringent effluent limitations reflecting their omission or modification.

(2) State laws or requirements or criteria within State water quality standards are not more stringent than the Red Book criteria unless fully justified as essential to achieve and sustain the beneficial uses.

An exception to this criterion may be allowed if a project is necessary to prevent degradation of the following types of "national resources waters":

a. National Parks

b. National Wildlife Refuges

c. National Seashores

d. National Monuments

e. National Marine Sanctuaries

f. National Estuarine Sanctuaries

Funding necessary to prevent degradation of other waters of national, rather than regional or State, importance may be allowed on a case-by-case basis if both the following conditions are met:

a. The water is of truly national, rather than regional or State importance.

b. Federal legislation or regulations are directed toward protecting the specific body of water from degradation.

(3) The wasteload allocations or other analysis resulting in the effluent limitations, along with the assumptions on which the analysis is based, are scientifically supported by intensive water quality surveys or appropriate field investigations conducted on the water bodies in question, and calibrated and verified models or other technically sound analyses.

(4) The treatment processes are the most cost-effective means of meeting the prescribed effluent limitations.

(5) The community is aware of the project's costs for treatment and reserve capacity. Cost information on total capital costs, local financing, and annual or monthly operating and debt service costs should be presented at a public hearing as required in PRM 76-3. Review of project costs and local financial impacts must comply with section 3.

(6) Land treatment has been fully evaluated.

If the above conditions are not met, either the entire project or its AWT elements (if they can be separated out) should not be funded pending further action.

Federal funding of all or the unjustified part of the project should be postponed until the project (if necessary) is redesigned or the level of treatment is fully justified. The advanced wastewater treatment increment of the project that is not justified should not be funded unless and until the project will result in significant water quality and public health improvements.

Should the review show that AWT cannot be justified, but that some treatment greater than secondary can be justified under the rules for review of AST projects, then the justified portion should be funded. The project should be segmented to permit funding of the justified portion and that section should be designed, if practicable, to allow addition of the other segment at a later date after further analyses.

Projects may be excepted from the AWT review procedures under the following circumstances:

(1) Project features land treatment or other innovative/alternative technologies affording wastewater reuse or recycling of pollutants where the project's cost would not exceed the high cost criterion described in section 3. Also, the incremental present worth cost of such a project must not exceed 50 percent of the present worth cost of a new secondary treatment project. If these criteria are met, the project may proceed without further review.

(2) The AWT project's incremental present worth cost does not exceed 25 percent of the present worth cost of a new secondary treatment facility. Project review must, nevertheless, conform with AST review procedures.

a. Incremental cost of AWT is $1 million or less.

Regions should follow the criteria and procedures given above. The decision will be made at the regional level.

b. Incremental capital cost of AWT is greater than $1 million.

If the Regional Administrator is satisfied that the project meets all of the required criteria and wants to proceed with funding, the project must receive approval from the Administrator in EPA Headquaters. The region shall furnish a report covering all of the criteria listed in section 2 and forward each of the documents listed in section 2 to the Office of Water Program Operations: attention Michael B. Cook, Director, Facility Requirements Division (WH 595), United States Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, telephone (202)426-9404, as soon as possible after the need for Headquarters review is identified.

Headquarters has developed internal procedures for a task force review of complex AST and AWT projects that will review the major issues and questions intensively based upon the material sent in by regions and States. Decisions will be made on the basis of the criteria outlined above. It is planned for the Administrator's decision on the project to be made within 45 to 60 working days of receipt of the project at Headquarters. This decision will be communicated to the regions.

3. Local Financial Impacts

All projects designed to achieve treatment more stringent than secondary must be evaluated in terms of financial impact upon the community. This evaluation should supplement the display and disclosure of financial information and local costs required of all facility plans and described in PRM 76-3. Total annual costs to a typical domestic user comprise both the existing preproject costs and the increase attributable to the

proposed new facilities. A project shall be considered high-cost when the total average annual cost (debt service, operation and maintenance, connection costs) to a domestic user exceeds the following percentage of median household incomes:

1.50 percent when the median income is under $6,000

2.00 percent when the median income is $6,000 - $10,000

2.50 percent when the median income is over $10,000

If review shows that a project is high cost, try to determine which elements of the project are responsible. Determine whether it is the treatment processes selected, excessive reserve capacity, new sewer construction, or other factors in the physical setting that may cause excessive costs in either construction or operation of the facility. Work with the grantee and the State to revise the facility plan or redesign the project to reduce the costs, or obtain assistance from the Farmer's Home Administration (FmHA) or another source with the local share. There is agreement between FmHA, EPA and Economic Development Administration for all to use the above rule-of-thumb in review of projects. Regions should proceed with a project determined to be high cost under this criterion only after consulting with the Facility Requirements Division in Headquarters.

Implementation

This policy shall be implemented immediately as follows. Regions shall advise States of the policy of strict review in the regions and Headquarters of treatment more stringent than secondary (advanced secondary and AWT). They should also be advised of the Agency's policy not to fund such projects if not justified. The policy should be applied to all projects prepared for Step 2 or 3 funding.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 9 1979

OFFICE OF WATER AND
HAZARDOUS MATERIALS
PROGRAM REQUIREMENTS MEMORANDUM
PRM# 79-8

SUBJECT: Small Wastewater Systems

FROM: John T. Rhett, Deputy Assistant Administrator
for Water Program Operations (WH-546)

John T. Rhett

TO: Regional Administrators
Regions I-X

I. Purpose

This memorandum clarifies EPA policy on the funding of privately and publicly owned small alternative wastewater systems, provides guidelines for identifying expensive projects and implements the new Federal interagency agreement for rural wastewater projects.

II. Discussion

During the facility planning stage, alternatives for providing wastewater treatment systems are explored to determine the most cost-effective method of treatment. Review of a sample of approved systems indicates that on-site or small-flow wastewater treatment systems often have not been considered carefully even when such systems are likely to be more cost-effective than collection and interceptor networks. Section 201(g)(5) of the Clean Water Act of 1977, (P.L. 95-217), requires all grant applicants to study fully innovative and alternative treatment options.

Both privately owned and publicly owned small alternative wastewater systems are grant eligible under the Act with specific restrictions and conditions applicable. Key terms are defined as follows:

Small alternative wastewater systems are wastewater conveyance and/or treatment systems other than conventional systems. Alternatives include, but are not limited to: septic tanks and subsurface disposal systems; other on-site systems including dual systems; small systems serving clusters each consisting of a small number of households or commercial users, each user with average annual (seasonal for facility in use for portion of year) dry weather flows of under 25,000 gallons per day; six-inch and smaller gravity sewers carrying partially or fully treated wastewater or carrying raw wastewater as a part of

limited conveyance systems serving clusters of households and small commercial establishments and pressure and vacuum sewers. These alternative sewers are specifically exempted from the collection sewer-interceptor designations when planned for small communities and are not subject to the collection system policy. These systems also include other treatment works which employ alternative technologies listed in Appendix E, 40 CFR 35, and serve communities of 3,500 population or less or the sparsely populated areas of larger communities.

A conventional system is a collection and treatment system consisting of minimum-size (6 or 8 inches) or larger gravity collector sewers, normally with manholes, force mains, pumping and lift stations and interceptors leading to a central treatment plant employing conventional concepts of treatment as defined in Section 5, Appendix E, 40 CFR 35.

Small alternative wastewater systems may be publicly or privately owned. Privately owned systems (called "individual systems" in the Act and 40 CFR 35) may serve only one or more principal residences or small commercial establishments. Publicly owned systems may serve one or more users. Perpetual or life-of-project easements or other binding convenant running with the land affording complete access to and control of wastewater treatment works on private property are tantamount to ownership of such works.

High wastewater user costs exceeding $200, $300, and even $500 annually for households in some communities under 10,000 in population have resulted from debt retirement costs for new collection systems or from high operation and maintenance costs of new sophisticated plants. Extremely high cost projects have culminated in political upheaval, refusal to connect into or to pay after connecting into central sewers, violence at public meetings, requests for injunctions, and filing suits against several parties, including EPA. In most cases, all of the feasible alternatives were not considered in the cost-effectiveness analysis and some systems were overdesigned by using inflated population projections and excessive water usage data. In the past, it has been difficult during facility plan review to pinpoint those projects that have severe financial impacts.

Previous policy and facility planning guidance have called for verification by the grantee that that community is able to raise the local share. PRM 76-3 requires the estimated operation and maintenance and debt retirement costs to each user to be presented in clear, understandable terms at the facility planning public meeting. In his letter of December 30, 1976, the Administrator asked the Regional Administrators to pay careful attention to facility plans where average local debt retirement costs per household exceed 1 percent of annual median income and for which local debt retirement costs plus operation and maintenance costs exceed 2 percent.

Guidelines modifying the 1 percent to 2 percent guide have been included below to assist in identification of expensive projects for further analysis. We are preparing a format with instructions for municipal officials and State and Federal reviewers to use to determine the size of project the municipality can afford using readily available local financial data.

Loan and grant programs of several Federal agencies for construction of wastewater treatment works in the past usually have been handled individually with little coordination among the agencies. This has resulted in unnecessary paperwork, duplication, federally imposed administrative burdens, construction of inappropriate or too sophisticated, costly facilities, fostering of development on rural land, and poor structuring of local share debt financing.

Under the Interagency Agreement for Rural Water and Sewer Projects, Environmental Protection Agency (EPA), Farmers Home Administration (FmHA), Economic Development Administration (EDA), Housing and Urban Development (HUD), and Community Services Administration (CSA) will coordinate their efforts to improve the delivery of Federal water and sewer programs to rural and semi-rural communities. Major features include:

°Emphasis on alternatives that may have lower per capita capital and operating costs and require less sophisticated technology and skill to operate than conventional collection and treatment facilities;

°A regular exchange of information among the agencies involved in funding the project, including meeting periodically and using the Federal Regional Councils;

°The facilitating of application and disbursement of funds for rural water and sewer projects and informing communities of the range of funding and other assistance available to them;

°The establishment of a universal data base for national wastewater disposal and treatment needs;

°The more efficient use of the A-95 process of review by clearinghouse agencies;

°Use of the same criteria to evaluate the financial impact of the proposed system upon the community;

°Coordination of the review of facility plans between EPA and FmHA and use of the plans by FmHA as their feasibility report to the extent possible;

°The demonstration of compliance with Federal requirements under specific statutes only once when communities are using funds from more than one program with identical compliance requirements. Where agency regulations differ in compliance requirements, agencies will work together to ensure individual or coordinated review as appropriate.

Facility planning in some small communities with unusual or inconsistent geologic features or other unusual conditions may require house-to-house investigations to provide basic information vital to an accurate cost-effectiveness analysis for each particular problem area. One uniform solution to all the water pollution problems in a planning area is not likely and may not be desirable. This extensive and time-consuming engineering work will normally

result in higher planning costs which are expected to be justified by the considerable construction and operation and maintenance cost savings of small systems over conventional collection and treatment works.

Though house-to-house visits are necessary in some areas, sufficient augmenting information may be available from the local sanitarian, geologist, Soil Conservation Service representative or other source to permit preparation of the cost-effective analysis. Other sources include aerial photography and boat-carried leachate-sensing equipment which can be helpful in locating failing systems. Detailed engineering investigation, including soil profile examination, percolation tests, etc., on each and every occupied lot should rarely be necessary during facility planning.

III. Policy

A. Funding of Publicly and Privately Owned Small Alternative Wastewater Systems

1. Minimum Standards and Conditions

The Clean Water Act and the regulations implementing the Act impose no restrictions on types of sewage treatment systems. These alternative systems are eligible for funding for State approved certified projects when the following minimum standards and conditions are met:

a. For both publicly and privately owned systems, the public body must meet the requirements of 40 CFR 35.918-1 (b), (c), (e) through (j); 35.918-2 and 35.918-3.

A comprehensive program for regulation and inspection of these systems must be established prior to EPA approval of the plans and specifications. Planning for this comprehensive program shall be completed as part of the facility plan. The program shall include, at a minimum, the physical inspection of all on-site systems in the facility planning area every three years with pumpouts and systems renovation or replacement as required. The program shall also include, at a minimum, testing of selected existing potable water wells on an annual basis. Where a substantial number of on-site systems exist, if necessary, appropriate additional monitoring of the aquifer(s) in the facility planning area shall be provided.

For privately owned systems the applicant must demonstrate in the facility plan that the solution chosen is cost-effective and selected in accordance with the cost-effectiveness guidelines for the Construction Program, (Appendix A, 40 CFR Part 35). These systems are not eligible for a 15 percent cost preference for the alternative and innovative processes and techniques in the cost-effectiveness analysis. Publicly owned systems, however, are eligible for the 15 percent cost preference.

b. In addition to the conditions in paragraph A.1, privately owned systems must meet the requirements of 40 CFR 35.918-1(a) and (d) and the following:

(1) Provide facilities only for principal residences, (see 40 CFR 35.918(a)(2)) and small commercial establishments (i.e., those with annual or seasonal, if not operated throughout the year, dry weather flows of less than 25,000 gpd and more than one user equivalent per day; e.g. 300 gpd). Not included are second homes, vacation or recreation residences;

(2) Require commercial users to pay back the Federal share of the cost of construction with no moratorium during the industrial cost recovery study. The 25,000 gpd exemption does not apply for those commercial establishments;

(3) Treat nonprofit and non-governmental institutional entities such as churches, schools, hospitals and charitable organizations, for purposes of this special authority, generally the same as small commercial establishments.

2. Other Eligible and Ineligible Costs

In addition to the costs identified in the Construction Grants Regulations, 40 CFR 35.918-2, the following costs are also grant eligible:

(a) Vehicles and associated capital equipment required for servicing of the systems such as septage pumping trucks and/or dewatered residue haul vehicles.

(1) Vehicles purchased under the grant must have as their sole purpose, the transportation of liquid or dewatered wastes from the collection point (e.g., holding tanks, sludge-drying beds) to the treatment or disposal facility. (Other mobile equipment is allowable for grant participation as provided for on pages VII-12 and 13, "Handbook of Procedures, Construction Grants Program for Municipal Wastewater Treatment Works.")

(2) If vehicles or equipment are purchased the grantee must maintain property accountability in accordance with OMB Circular A-102 and 40 CFR 30.810.

(b) Septage treatment plants (eligible for 85 percent grant funding as part of an alternative system).

(c) Planning for establishment of small alternative wastewater systems management districts, including public hearings to discuss district formation. The "mechanics" of establishing the districts such as legal and other costs for drafting of ordinances and regulations, elections, etc., are a normal function of government and are not grant eligible, (Construction Grants Program Handbook of Procedures, VII-6).

(d) Rehabilitation, repair or replacement of small alternative wastewater systems as provided for by 40 CFR 35.908(c).

3. Grant Funding of Small Alternative Wastewater Systems

Small alternative wastewater systems are eligible for 85 percent grants; 75 percent of the Federal grant may be funded from the 4 percent set-aside. The 10 percent grant increase must be funded from the 2 percent set-aside (3 percent in FY 1981). The 10 percent grant increase can also be applied to small alternative wastewater systems where 4 percent set-aside funds are not available (i.e., in States where there is no 4 percent set aside or States where 4 percent set-aside funds have been depleted).

4. Use of Prefabricated or Preconstructed Treatment Components

The use of prefabricated or preconstructed treatment components such as septic tanks, grinder pump/tank units, etc., normally is more economical than construction in place and should be carefully considered. In the case of very small systems, prefabricated or preconstructed units should in most instances be the most cost-effective. For somewhat larger systems of standard design, prefabricated or preconstructed units may also be cost-effective and should be carefully considered in the facility plan.

5. Useful Life of Small Alternative Wastewater Systems

Whenever conditions permit, these alternative treatment works including soil absorption systems, shall be designed to ensure a minimum useful life of twenty years.

6. Comparison of Small Alternative Wastewater Systems with Collection Systems in Cost-Effective Analysis

The present worth of small alternative wastewater systems for future development permitted by the cost-effectiveness guidelines, (40 CFR 35, Appendix A) may be compared with the costs of alternative and conventional collection systems for the same planning area. In each instance both eligible and ineligible costs shall be considered including service line costs from residence to collector, connection fees and service to the on-site units.

IV. Determination of the Economic Impact of the Project

When total user charges for wastewater treatment services, including debt service and operation and maintenance, for the average user in the service area, exceed the following percentages of annual household median incomes:

-- 1.50 percent when the median income is under $6,000;
-- 2.00 percent when the median income is between $6,000-$10,000;
-- 2.50 percent when the median income is over $10,000.

the projects shall be considered expensive and shall receive further intensive review to determine, at a minimum:

1. the adequacy and accuracy of the cost-effective analysis, particularly noting whether all the feasible alternatives have been considered and if the cost estimates are reasonable;

2. the soundness of financing of the local share, and

3. whether the grant applicant has sought out all the sources of supplemental funding.

(Costs of an expensive project can sometimes be reduced by additional facility planning effort, including reduction in scope.)

A format, instructions and criteria for determination of the financial capability of the public body to carry the debt load of a new project are being prepared and will be promulgated at an early date. This process will be tailored for the use of municipal authorities and State and EPA reviewing officials.

V. Interagency Coordination and Streamlining the Review and Approval of Grants or Loans for Construction of Wastewater Treatment Works in Sparsely Populated Communities

A. Coordination with Farmers Home Administration (FmHA)

Communities should be encouraged to contact FmHA during the development of their facility plans to receive informal comments before the plans are finalized and submitted for review.

Upon receipt of State certified facility plans for communities under 10,000 population, the Region shall send a copy of each plan to State FmHA officials for their review concurrently with regional review. FmHA will provide comments normally within 30 days to the Region on the financial capability of the community to carry the project, the structuring of the local share debt, the viability of the selected alternative and other matters in which FmHA is interested. The comments are for each Regional Administrator's information and appropriate action, if received within the 30-day period. They are not FmHA's official comments to the community on its plan. Close cooperation between FmHA and regional reviewers is encouraged. For States which are delegated final facility plan review, the above coordination shall be between the State and State FmHA officials.

B. Exchange of Information Among FmHA, HUD, EDA, CSA and EPA Through Joint Meetings

The agencies shall meet periodically during the year using the Federal Regional Councils. Meetings shall be initiated by any of these organizations and one of these meetings will take place at least 120 days before the beginning of each new fiscal year. These meetings may include:

1. Review of status of projects being jointly or concurrently funded;

2. Discussion of future projects in common;

3. Exchange of information on current and new administrative or substantive procedures or requirements; and

4. Review of action items such as:

   a. One year priority or project lists to identify combined funding possibilities;

   b. Existing project lists to identify overlapping projects or funding; and

   c. Construction and inspection schedules to identify areas of coordination.

Regular meetings between respective state-level agencies are encouraged for similar purposes of coordination.

C. Encouragement of Alternatives to Conventional Collection and Treatment of Wastewater

Alternatives to conventional wastewater collection and treatment facilities that may have lower per capita capital, operating and maintenance costs and require less sophisticated technology and skill to operate shall be encouraged.

D. Provision of Funding and Other Assistance Information to Small Communities

Regional offices and other sources will provide, on request, information on the range of funding and other assistance for rural sewer projects. Technical information may be obtained from the Environmental Research Information Center (ERIC), Cincinnati, Ohio 45268, telephone number (513) 684-7394, or the Small Wastewater Flows Clearinghouse, West Virginia University, Morgantown, West Virginia 26506, telephone number (800) 624-8301.

E. Establishment of a Universal Data Base for National Wastewater Disposal and Treatment Needs

The EPA biennial Needs Survey will be used as the initial data base for all agencies involved in funding rural facilities.

F. More Efficient Use of the A-95 Process of Review

Notification of intent to apply for grant funds submitted to A-95 clearinghouses should indicate the intention to apply for joint or combined funding and identify the prospective assisting agencies.

The A-95 agency needs to conduct only one review of the actual project for each plan of study and Step 1 grant (except for special circumstances) which will meet the requirements for all agencies involved.

The use of the A-95 process and Water Quality Management Planning process under section 208 to identify projects that may be eligible for funding should be promoted.

Regions should encourage the clearinghouses to use the A-95 process to evaluate the rural and urban impact of jointly funded projects.

G. Acceptance of One-Time Demonstration or Assurance of Compliance with Federal Requirements for Jointly Funded Projects

The Regions and States where responsibility has been delegated should accept evidence of compliance with requirements of the following when they apply in an identical manner to the programs of each agency:

1. Uniform Relocation and Real Property Acquisition Policies Act of 1970;

2. Civil Rights Act of 1964; Civil Rights Act of 1968; Executive Order No. 11246;

3. Davis-Bacon Fair Labor Standards Act;

4. The Contract Work Hours Standards Act;

5. The Copeland (Anti-Kickback) Act;

6. The Hatch Act;

7. The Coastal Zone Management Act of 1972;

8. The Archaeological and Historic Preservation Act of 1974;

9. The National Flood Insurance Act of 1968, as amended by the Flood Disaster Protection Act of 1973, and regulations and guidelines issued thereunder;

10. The Wild and Scenic Rivers Act of 1968;

11. The Endangered Species Act of 1973;

12. The Clean Air Act;

13. Executive Order No. 11988 on floodplains management;

14. Executive Order No. 11990 on wetlands protection;

15. The National Historic Preservation Act of 1966, and Executive Order No. 11593;

16. The Safe Drinking Water Act of 1974.

Further guidance in this area will be issued after detailed review and discussion by all agencies of regulations and requirements implementing each of the above statutes.

VI. Implementation

This policy should be emphasized through Step 1 preapplication conferences, contacts through municipalities and the States and reviews of Steps 1 and 2 grant applications. This PRM is effective for facility plans started after May 31, 1979, except as follows:

a. The determination of economic impact is applicable to facility plans review commencing 90 days after issuance of this guidance.

b. Review of facility plans by FmHA should commence on facility plans received for review 60 days after issuance of this guidance.

c. Joint meetings to exchange information using the Federal Regional Councils should commence prior to May 31, 1979. At least one of the future meetings should take place at least 120 days before the beginning of each new fiscal year that follows.

d. The more efficient use of the A-95 review above shall commence as soon as practicable, but not later than May 31, 1979.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 11 1979

Program Requirements Memorandum
PRM # 79-9

SUBJECT: Outlay Management in the Construction Grants Program

FROM: Thomas C. Jorling, Assistant Administrator
for Water and Waste Management (WH-556)

TO: Regional Administrators

PURPOSE

This memorandum sets forth policy on outlay management in the Environmental Protection Agency's construction grants program.

POLICY

It is the policy of the Environmental Protection Agency to establish and maintain a comprehensive system of outlay planning and management in the construction grants program. Regional Offices will be responsible for developing realistic outlay estimates, and for meeting approved outlay plans on a monthly basis.

In furtherance of this policy, Regional Offices are to pursue a program of active outlay management, at both the project and the contract levels, for all large construction grants projects designated by the Regional Administrator. For all such projects outlay schedules are to be developed for all major construction and A/E contracts at the time of contract award. This requirement replaces the need for the grantee to submit the proposed payment schedule prior to grant award that is normally made part of the grant agreement. For any contracts not awarded within six months of grant award, the grantee must furnish a schedule of projected start and completion dates for each contract. The method for submitting this information to the Region will be determined by the Regional Administrator.

The outlay schedules are to be revised annually by July 1st, for input into the federal budget process, and whenever actual project performance strays significantly (-5% or +10%) from the schedule. Each project is to be inspected at least quarterly (on a continuing resident or monthly basis for large or complex projects) to monitor performance against these schedules, and to resolve problems before they lead to project delays.

To provide the Region with the necessary information for developing outlay estimates, and to provide a basis for subsequent project/contract management, the grantee must submit the following information for each major construction or A/E contract by July 1st of each year:

- o EPA project identification (grant) number.
- o Grantee name.
- o Contract identification (name or number).
- o Contract award date.
- o Projected contract completion date.
- o Total eligible contract amount.
- o Quarterly payment schedule (75% EPA share) for last quarter of current fiscal year and all of the following fiscal year, and an annual estimate for the succeeding fiscal year. (The Regional Administrator may request a monthly payment schedule for contracts that may have a significant impact on Regional outlay projections.)
- o Other information required by the Regional Administrator for effective contract management.

For new contracts awarded after July 1st, or for contract schedules that must be revised during the year because actual performance differs from the projection, the grantee should submit, along with the other administrative information, projections only for the quarters that remain in the year, plus the annual projection for the succeeding year.

On an annual basis these contract level outlay schedules are to be aggregated, modified as appropriate, and combined with outlay projections for Step 1, Step 2, small Step 3 and 4, Section 206(a), and P.L. 84-660 projects, as well as expected outlays for future obligations and drawdowns of Section 205(g) State delegation agreements, to become the Region's annual outlay commitment. This commitment will be in the form of a monthly projection, by State and Regional total, of the outlay demand for the upcoming fiscal year; and a annual projection, by State and Regional total, for the following (budget) year. The commitment is due to Headquarters by August 10th of each year. Upon approval by Headquarters, the Regions will be required to meet their commitment to within ±5% of the cumulative projection on a monthly basis. Regional performance will be tracked only against the total Regional monthly commitment. The State breakdown and the annual budget year projection will only be considered activity indicators.

DISCUSSION

This policy is being implemented by EPA for two purposes: to develop more accurate fiscal estimates for the President's budget, and to initiate a comprehensive program of project management in the post-Step 3 phase of the construction grants process. Accurate budget estimates are required for this program because of its size and impact on federal budget decisions. Effective project management is essential to assure that fiscal estimates are achieved, and that construction grants projects proceed on schedule to achieve the primary goal of clean water at the earliest possible date and at minimum cost. The program being adopted by EPA is designed to attain these objectives.

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