UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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

June 21, 1999

Dear POTW Operator:

The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA) are sponsoring a survey of radionuclide levels in sewage sludge and ash from publicly owned treatment works (POTWs). This survey consists of two parts — a questionnaire and sampling and analysis. We request your voluntary participation in this survey by completing and returning the enclosed questionnaire.

During the sample and analysis part of the survey, samples will be collected voluntarily from several hundred POTWs nationwide and analyzed to determine the level of radionuclides. The overall objective of the survey is to determine if there are elevated levels of radioactive materials in sewage sludge/ash. We plan to use this information in assessing whether to apply further restrictions to the licensed and unlicensed radioactive material that is being discharged to the sewer system and whether to include radioactive materials in biosolids standards. The range of survey results will be referenced in a joint NRC/EPA guidance document for POTWs, which is currently under development. This survey information is not being collected for enforcement purposes by NRC or EPA.

We recognize that some of the facilities being asked to participate in this survey may have also participated in earlier federally sponsored surveys. Although they contained much useful information, these earlier surveys were more limited in scope and not adequate to determine the need for regulatory changes.

NRC's and the Agreement State's regulations authorize certain amounts of radioactive material to be disposed of into the sanitary sewer system. In addition, other radioactive material enters the sewer system, from natural sources such as sediment, runoff, drinking water, and drinking water treatment residuals. Radioactive material that enters a POTW should be in an extremely diluted state, with an extremely low concentration. Consequently, none of this influent should pose a significant radiological risk. However, we have limited data from sites throughout the United States in the early to mid 1980's that suggests in certain cases some radioactive material can be reconcentrated in sewage sludge solids and ash. Therefore, measurable levels of some licensed and unlicensed (i.e., naturally-occurring) radioactive materials are expected to be found in the samples taken during this survey.

The information from the questionnaire will be used to help determine if your facility will be chosen for sample analysis. The U.S. Department of Energy's Oak Ridge Institute for Science and Education (ORISE), under contract to NRC, and EPA's National Air and Radiation Environmental Laboratory (NAREL), will be analyzing the sewage sludge and ash samples. If selected for part two of the survey, ORISE will assign a confidential code to each POTW to ensure anonymity. The identity code for your facility will only be known to you and a few selected individuals at ORISE who will tightly control access to this information. We plan to

Attachment 3

publish the results of the survey in a report without linking the POTWs with the individual sample analytical results.

To make the information available in a timely fashion, we request that you complete the enclosed questionnaire and return it not later than 30 days after receipt. After receiving your completed questionnaire, including a list of zip codes for your collection system, we will provide you with a list of the licensees that have the ability to discharge to your facility's collection system. If your facility is chosen for sample analysis, we will provide you with a package with our sampling procedures, sample collection materials, and prepaid shipping container for submitting the samples to our survey labs.

This questionnaire contains information collections that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget, approval number 3150-0189, which expires June 30, 2001.

The public reporting burden for this voluntary information collection is estimated to average 2 hours per response for the questionnaire, 6 hours each for selected respondents for collecting samples, and 8 hours for each Agreement State; including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection.

Send comments on any aspect of this information collection, including suggestions for reducing the burden, to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at BJS1@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0189), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

We appreciate your support in this important national survey project. We will send you the final report, which will be an NRC/EPA joint report. If you have any questions about the survey, feel free to contact: Robert Bastian with EPA's Office of Wastewater Management at 202-260-7378 (INTERNET:Bastian.Bobert@epamail.epa.gov); Behram Shroff with EPA's Office of Radiation and Indoor Air at 202-564-9707 (INTERNET:Shroff.Behram@epamail.epa.gov); or me at 1-800-669-8744, ext. 6230 (INTERNET:mlt1@nrc.gov).

Sincerely,

Mary L. Thomas, Health Physicist
Office of Nuclear Regulatory Research
US Nuclear Regulatory Commission

Enclosure:
Sewage Sludge Questionnaire
Joint AMSA/WEF Letter
Joint NRC/EPA Sewage Sludge Radiological Survey: Survey Design and Test Site Results

SEWAGE SLUDGE QUESTIONNAIRE

1. GENERAL INSTRUCTIONS

1.1 Introduction

The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA) request your participation in a joint national survey of the concentrations of radioactive material in sewage sludge (biosolids), ash, and related byproducts.

NRC regulations in 10 CFR 20.2003 currently permit licensee disposal of certain specific quantities of soluble or readily dispersible biological radioactive material into a sanitary sewer system. The EPA regulation that addresses the use or disposal of sewage sludge (40 CFR Part 503) currently does not address radionuclides.

This survey will help determine the adequacy of the present NRC and EPA regulations addressing the discharge of radioactive material to the sanitary sewer system. It will also respond to a recommendation from the General Accounting Office (GAO) to determine the extent to which radioactive contamination in sewage sludge, ash, and related byproducts is occurring (GAO report, "Actions Needed to Control Radioactive Contamination at Sewage Treatment Plants," May 1994).

1.2 When and Where to File

Please return the completed questionnaire within 30 days of date of receipt to the address below:

U.S. Nuclear Regulatory Commission
Attn: Mary Thomas
Mail Stop T-9C24
Washington, DC 20555

1.3 Reporting Period

Please report information for the last 12 months or the last calendar year.

1.4 Further Information

If you require assistance in completing this questionnaire, call Robert Bastian, EPA, at 202-260-7378, (email: bastian.robert@epa.gov) or Mary Thomas, NRC, at 1-800-368-5642-extension 6230 (email: mlt1@nrc.gov).

2. GLOSSARY OF TERMS

End-products are the materials that leave the treatment facility or are disposed of onsite after all processing is completed (e.g., ash from incineration, digested liquid or dewatered cake, dried pellets, compost).

Incineration is the combustion of matter in sewage sludge by high temperatures in an enclosed device.

Land application is the application of sewage sludge to land to either condition the soil or fertilize crops or other vegetation.

Monofills are landfills where only sewage sludge is disposed. Monofills include trenches and area fills.

Municipal solid waste landfill is a landfill that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. Such a landfill may be publicly or privately owned.

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to: domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Surface disposal is the placement of sewage sludge on an area of land for final disposal. It includes monofills, surface impoundments, lagoons, waste piles, and dedicated disposal sites. It does not include treatment and storage of sewage sludge, although placement on land for longer than 2 years is considered surface disposal unless the site owner/operator retains written records demonstrating that the operation constitutes a treatment or temporary storage site.

Treatment works is either a Federally-owned, publicly-owned, or privately-owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Use or disposal includes: land application of bulk sewage sludge, land application of sewage sludge sold or given away in a bag or other container, surface disposal, disposal in a municipal solid waste landfill unit, incineration, or any other use or disposal practice (e.g., vitrification, use in asphalt or brick production, etc.).

SECTION I. TREATMENT WORKS IDENTIFICATION INFORMATION

Mailing Label

Name of the treatment works and physical location (which may differ from the mailing address):

Mailing address of the treatment works (if different):

Name, title, and telephone number of the person who should be contacted regarding information on this questionnaire:

Name, title, address, and telephone number of the person who should be sent the sample collection package:

SECTION II. GENERAL TREATMENT WORKS INFORMATION

1. Indicate below the level(s) of wastewater treatment achieved by this treatment works. (Mark X for all that apply.)

   a. ☐ Primary treatment

   b. ☐ Secondary treatment

   c. ☐ Advanced treatment

2. Provide the annual average daily total flow rate for the last 12 months or the last calendar year (the total volume of wastewater treated by the treatment works in one year divided by 365). Use Gallons per Day (GPD) if your total daily flow rate is less than 10,000 GPD, *or* use Million Gallons per Day (MGD), but not both.

   _____ GPD or MGD (Circle one) over the

   last 12 months or last calendar year (circle one)

3. List the zip codes served by the collection system for this treatment works. This information is needed so NRC can identify licensees that can potentially discharge to your collection system. A list of these licensees will be sent to you in return for providing this information.

4. Identify the *sewage sludge* treatment process(es) used at your treatment works. (Mark X for all that apply.)

a. ☐ Treatment works did not process sewage sludge in the last 12 months or the last calendar year.
Explain: _____

b. ☐ Thickening

c. ☐ Mechanical dewatering by _____
(Please fill in process(es) used.)

d. ☐ Heat treatment/wet air oxidation

e. ☐ Aerobic digestion

f. ☐ Anaerobic digestion

g. ☐ Composting

h. ☐ Lime stabilization (Class B)

i. ☐ Alkaline Stabilization (Class A)

j. ☐ Air drying beds

k. ☐ Heat drying/Pelletizing

l. ☐ Sewage sludge treatment/storage lagoon(s)

m. ☐ Sewage sludge storage bins or piles

n. ☐ Incineration

o. ☐ Other sewage sludge treatment processes (Please specify.)
_____

5. Check the boxes below to indicate the sewage sludge use or disposal practice employed at your facility or by others using/disposing of your sewage sludge or ash. Also describe the product as one of the following: slurry, dewatered cake, compost, pellets, ash, effluent, grit, or other. Note if the product is stored onsite before ultimately being disposed offsite; and if the product is stored onsite, the time stored onsite.

a. ☐ Land application. Product description:

_____

_____

b. ☐ Surface disposal (permanent piles, lagoons, sludge or ash monofills). Product description: _____

_____

c. ☐ Disposal in municipal solid waste landfill. Product description:

_____

_____

d. ☐ Transfer of your sewage sludge or ash to another facility for use or disposal. Product description:

_____

_____

Identify the facility (type, location):

_____

_____

e. ☐ Other use or disposal practice. Product description:

_____

Describe practice:

_____

_____

6. What are the primary sources of drinking water for your community? Check more than one, if applicable.

a. ☐ Municipal water supply from surface water source(s)

b. ☐ Municipal water supply from groundwater well(s)

c. ☐ Private wells

d. ☐ Private water supply from surface water source(s)

7. Does your wastewater collection system receive discharges of drinking water treatment residuals?

☐ Yes ☐ No

8. Does your wastewater collection system include combined sanitary and storm water sewers?

☐ Yes ☐ No

9. Do you receive sludge from other wastewater treatment facilities for processing at your facility?

☐ Yes ☐ No

10. Do you receive septage for processing at your facility?

☐ Yes ☐ No

11. What percentage of the annual average daily total flow rate (response to question 3) is industrial flow?

_____ Percent

12. Have you ever tested for radioactive materials in your sewage sludge?

☐ Yes ☐ No

13. Do you have more than one final sewage sludge production facility location?

☐ Yes ☐ No

amsa

Water Environment Federation®
Preserving & Enhancing the Global Water Environment

1000 Connecticut Ave. NW, Suite 410, Washington, DC 20036

601 Wythe Street, Alexandria, VA 22314

June 1999

Dear Colleague:

Enclosed with this memorandum from the Association of Metropolitan Sewerage Agencies (AMSA) and the Water Environment Federation (WEF) is a questionnaire that is being sent to over 600 U. S. Publicly Owned Treatment Works (POTWs). The intent of the questionnaire, which was prepared for the Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA) by the Sewage Subcommittee of the Interagency Steering Committee on Radiation Standards (ISCORS), is to provide a screening mechanism as a first step toward determining the extent and magnitude of radioactivity levels in selected municipal wastewater treatment facility residuals and incinerator ash.

To assist you and your staff in understanding the issue of radioactivity in POTWs, a guidance document ("Characterization of Radioactivity Sources at Wastewater Treatment Facilities") was prepared by the AMSA-EPA-WEF National Biosolids Partnership (NBP) and sent to your Agency under separate cover prior to receipt of this questionnaire.

Both AMSA and WEF endorse the gathering of information to provide documentation of background levels of radiation at POTWs and encourage you to participate fully by completing the NRC/EPA survey form. We feel that the data gathered by this effort will provide a solid basis for the accurate interpretation of radioactivity levels in municipal wastewater collection and treatment.

Sincerely,
ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

K K.C

Ken Kirk, Executive Director

WATER ENVIRONMENT FEDERATION

Quincalee Brown

Quincalee Brown, Ph.D., Executive Director

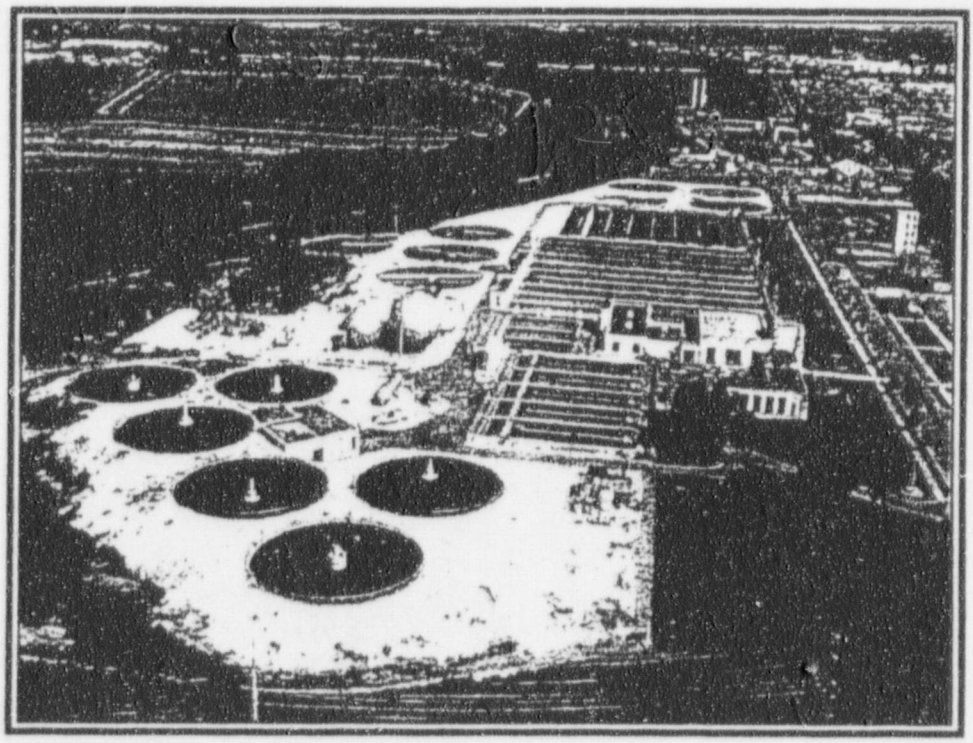
Enclosures

United States
Environmental Protection
Agency

United States
Nuclear Regulatory
Commission

EPA 832-R-99-900
May 1999

Joint NRC/EPA Sewage Sludge Radiological Survey: Survey Design And Test Site Results



Sewage Subcommittee of the
Interagency Steering Committee on
Radiation Standards (ISCORS)

Acknowledgments

This report, which presents the results of radioisotope analyses of sewage sludge and ash samples from nine test sites as a trial test of the procedures planned for use in a survey of some 300 facilities across the country, was coordinated by the Sewage Subcommittee of the Interagency Steering Committee on Radiation Standards (ISCORS). The document was based primarily upon the detailed laboratory results on the samples reported to the Subcommittee by the U.S. Environmental Protection Agency (EPA) National Air & Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, and the U.S. Nuclear Regulatory Commission (NRC) contract laboratory, the Oak Ridge Institute for Science & Education (ORISE) in Oak Ridge, Tennessee.

Subcommittee members who participated in the planning and conduct of the nine test site survey effort and/or preparation of this report included (listed alphabetically):

Lee Abramson, NRC/Office of Nuclear Regulatory Research
Kevin Aiello, Middlesex County Utilities Authority
Jim Bachmaier, Department of Energy
Bob Bastian, EPA/Office of Wastewater Management
Dale Condra, ORISE
Mark Doehnert, EPA/Office of Radiation and Indoor Air
Dale Hoffmeyer, EPA/Office of Radiation and Indoor Air
Tony Huffert, NRC/Office of Nuclear Material Safety and Safeguards
Tom Lenhart, Northeast Ohio Regional Sewer District
Jill Lipoti, State of New Jersey
Roy Lovett, Department of Defense
Tin Mo, NRC/Office of Nuclear Regulatory Research
Robert Neel, NRC/Office of Nuclear Material Safety and Safeguards
Bob Nelson, NRC/Office of Nuclear Material Safety and Safeguards
Tom O'Brien, NRC/Office of State Programs
George Powers, NRC/Office of Nuclear Regulatory Research
Charleen Raddatz, NRC/Office of the Executive Director for Operations
Alan Rubin, EPA/Office of Science Technology
Dave Saunders, EPA/NAREL
Duane Schmidt, NRC/Office of Nuclear Material Safety and Safeguards
Loren Setlow, EPA/Office of Radiation and Indoor Air
Behram Shroff, EPA/Office of Radiation and Indoor Air
Phyllis Sobel, NRC/Office of Nuclear Material Safety and Safeguards
Scott Telofski, EPA/NAREL
Mary Thomas, NRC/Office of Nuclear Regulatory Research
Mary Wisdom, EPA/NAREL

Photo courtesy of Water Environment Federation, Alexandria, Virginia.

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DISCLAIMER

This document resulted from interagency discussions. The Interagency Steering Committee on Radiation Standards Sewage Subcommittee is composed of representatives from the Environmental Protection Agency, Nuclear Regulatory Commission, Department of Energy, Department of Defense, State of New Jersey, the city of Cleveland and the county of Middlesex, New Jersey. This document has not been approved by the respective agencies and does not represent the official position of any participating agency at this time.

JOINT NRC/EPA SEWAGE SLUDGE RADIOLOGICAL SURVEY: SURVEY DESIGN AND TEST SITE RESULTS

A. SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA), through a subcommittee of the Interagency Steering Committee on Radiation Standards (ISCORS), are sponsoring a joint survey to collect information concerning radioactive materials in sewage sludge and ash from sewage treatment plants (referred to in the industry as publicly owned treatment works (POTWs)). Sanitary sewer disposal of radioactive material and sludge reconcentration became an issue in the 1980s with the discovery of elevated levels of radioactive materials in sewage sludge/incinerator ash at several POTWs. Although neither the NRC nor the Agreement States have seen further problems associated with POTW reconcentration of radioactive materials since NRC's regulations were revised in 1991, NRC and EPA are working together to conduct a survey of radioactive materials in sewage sludge and ash from POTWs.

The objectives of this joint NRC/EPA sewage sludge/ash survey are to: (1) obtain data on the levels of radioactive materials in sludge and ash at POTWs from across the country; (2) estimate the extent to which radioactive contamination comes from either NRC/State licensees or naturally-occurring radioactivity; and (3) support potential rulemaking decisions by NRC or EPA, if necessitated by the survey results. However, because of the design limitations, the survey alone may not be sufficient for rulemaking.

The intent is that the names of the POTWs will not be associated with the analysis results in publicly available records and reports. The reason for the anonymous survey is to encourage the cooperation of POTWs. However, if elevated levels of radioactive materials are detected that are determined to be a potential health and safety concern, as determined by NRC, further investigation will be conducted to determine the appropriate course of action.

The voluntary survey consists of two components - a questionnaire and a program to sample and analyze sewage sludge and incinerator ash. Questionnaires will be sent to selected POTWs associated with NRC and Agreement State licensees that have the greatest potential to discharge radioactive materials in accordance with existing regulations and to POTWs in all

areas of the country, including areas of relatively high background radioactivity. Using the information from the questionnaires, NRC and EPA will identify approximately 300 POTWs to be sampled. It is expected that it will take several months for both agencies to analyze the results from the questionnaire and a year to complete the analysis of samples to be received from the POTWs.

This report summarizes the results at nine POTW sites where the questionnaire methods and sampling and analytical procedures were tested. The survey was refined based on the experiences at the test cases and public comments on the survey. The results of the full survey will be published as a joint NRC/EPA report for use by POTW operators, Federal agencies, States, and local officials.

The sewage sludge/ash survey is being coordinated by a subcommittee of ISCORS, which was formed in 1995 to coordinate resolution of interagency issues related to radiation protection. The ISCORS Sewage Subcommittee is assisting NRC and EPA in the development of the survey, including analysis procedures and the selection of facilities to sample.

The NRC contractors and EPA's National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, will analyze the sewage sludge and ash samples. These labs have also assisted ISCORS with the survey design. For example, the labs collaborated to ensure that the analytical laboratory procedures and quality assurance programs that both labs plan to use will produce consistent, accurate, and reliable laboratory measurements.

NRC requested Office of Management and Budget (OMB) approval for this survey. Notices were published in the Federal Register on January 6, 1997, and December 2, 1997, to solicit public comments on the survey effort. This information request was approved by OMB (clearance number 3150-0189), with an expiration date of June 30, 2001.

B. BACKGROUND

Federal Regulations

Specific amounts and concentrations of radioactive material are legally authorized to be disposed into the sanitary sewage collection system by Federal and State regulations. In 1991, NRC revised its sewer disposal criteria, partially in response to evidence that certain radioactive materials were reconcentrating in sewage sludge or incinerator ash. The revised NRC regulations further limited the radioactive materials that NRC licensees are allowed to discharge to POTWs, which should preclude contamination at POTWs. The current NRC regulations in 10 CFR 20.2003 permit disposal of specific quantities of soluble material into a sanitary sewer. NRC plans to use the survey information in assessing whether to apply further restrictions to the licensed radioactive material that is being discharged to sanitary sewage collection systems.

The EPA standard for the use and disposal of sewage sludge (biosolids) in 40 CFR Part 503 does not include limits for radioactive material. POTW operators have requested that EPA regulations address radioactive materials so POTWs would have a basis to restrict discharges of radioactive materials to the sewage collection system. EPA plans to use the survey results to evaluate the need to include limits on radioactive materials in biosolids standards.

Sources of Radioactive Materials

One possible source of radioactive material entering a POTW involves naturally-occurring sources such as groundwater, which can contain elevated levels of radioactive materials in some parts of the U.S., as well as drinking water treatment residuals disposed of into the sanitary sewage collection system. Another possible source is the authorized disposal by users of radioactive materials (such as NRC and Agreement State licensees) of man-made radioactive materials into the sanitary sewage collection system. The removal of contaminants by various methods at POTWs, and the reduction of the volume of solids that contains these contaminants (e.g. incineration of sludge), can cause reconcentration of radioactive materials in the treatment facility's sewage sludge or ash.

Background information on the nature of radioactivity in sewage sludge can be found in reports published by NRC in 1992 and 1994 entitled "Evaluation of Exposure Pathways to Man From Disposal of Radioactive Materials Into Sanitary Sewer Systems" (NUREG/CR-5814) and "Reconcentration of Radioactive Material Released to Sanitary Sewers in Accordance with 10 CFR 20" (NUREG/CR-6289), respectively. Another useful background document is a report entitled "Radioactivity of Municipal Sludge" issued by EPA during the development of the first round rulemaking of the 40 CFR Part 503 sewage sludge technical rule.

Congressional Interest

This survey responds, in part, to a recommendation in the General Accounting Office (GAO) report, "Actions Needed to Control Radioactive Contamination at Sewage Treatment Plants," published in May 1994. The GAO report recommended that NRC determine the extent of elevated levels of radioactive materials at POTWs and establish acceptable limits for radioactive materials in sewage sludge and ash.

A joint House/Senate hearing was held in 1994 to officially release and address questions raised in the GAO report. The hearing was stimulated by concerns associated with elevated levels of radioactive materials in incinerator ash at a major sewage treatment plant in the Cleveland, Ohio, area. The GAO stated that, over the past 20 years, NRC documented about a dozen situations where elevated levels of radioactive materials were identified in sewage sludge or sludge incinerator ash; but, there has been no national survey of radiation levels present in sewage sludge or sludge incinerator ash to determine if this is a widespread problem.

At the time of the hearing, EPA was planning to conduct a second National Sewage Sludge Survey (NSSS) to support its efforts to develop the second round of the 40 CFR Part 503 sewage sludge technical regulations. EPA's planned survey would have included the collection of data on concentrations of radioactive materials in a representative sampling of POTW sludges from across the country. (The first national survey conducted in the late 1980s did not include analysis of radioactive material.)

Testimony presented by both NRC and EPA during the 1994 hearing noted that there was no indication of a widespread problem in this area and the Cleveland incident appeared to be an isolated incident. Based on limited information on radiation levels in sewage sludge and ash across the country, it appeared that reconcentration of radioactive materials may have been

associated with authorized insoluble industrial releases from both NRC and Agreement State licensees, which was documented and used as a basis of the GAO report. These problems occurred prior to the revision to NRC's regulations in 1991.

Industry Interest

In 1996, the Association of Metropolitan Sewerage Agencies (AMSA) conducted a confidential voluntary survey of concentrations of radioactive materials in some of its members' POTW sewage sludges and ashes. The objective was to develop a better estimate of the concentration of radioactive materials in sewage sludges and sludge incinerator ashes. Samples from 55 wastewater plants in 17 States were supplied voluntarily and analyzed for radioactive materials. These plants were distributed across the country and ranged in size from small to among the largest POTWs. The most significant levels of radioactive material were the potassium and radium isotopes, which are naturally-occurring radioactive materials. The restricted nature of the AMSA survey limited its usefulness in assessing regional background levels of radioactive materials or the effects of licensees that dispose of radioactive material into sanitary sewers.

Current Plans

EPA is not currently planning to move forward with a second NSSS. Based on EPA's plans and the limitations of the AMSA survey, NRC and EPA decided to jointly fund a survey of POTW sewage sludges and ash to assess the potential need for NRC and/or EPA rulemaking. The survey information will also be referenced in a joint NRC/EPA guidance document for POTWs, which is currently under development by the ISCORS Sewage Subcommittee. This guidance would provide information to help POTW operators determine sources of radioactive materials at POTWs, describe sampling and analysis procedures, and advise whether a response is needed to the presence of radioactive material in sludge.

C. SURVEY DESIGN

The objectives of this joint NRC/EPA sewage sludge/ash survey are to: (1) obtain data on the levels of radioactive materials in sludge and ash at POTWs from across the country; (2) estimate the extent to which radioactive contamination comes from either NRC/State licensees or naturally-occurring radioactivity; and (3) support potential rulemaking decisions by NRC or EPA, if necessitated by the survey results. However, because of the design limitations, the survey alone may not be sufficient for rulemaking. These limitations include: (1) it is a voluntary survey, (2) a small number of samples are collected at each POTW, (3) the samples are collected in a snapshot in time, and (4) the survey is biased to POTWs associated with facilities with the greatest potential to discharge radionuclides and to POTWs in areas of higher concentrations of naturally-occurring radioactive material (NORM). Therefore, the survey results will not be a statistically valid representation of radionuclide levels in sludges nationwide.

The survey consists of two components - a questionnaire and a program to sample and analyze sewage sludge and incinerator ash.

Development of the Questionnaire

NRC and EPA developed a questionnaire (Appendix A) to request information from POTWs, such as their sludge treatment processes and disposal practices. The questionnaire also requests the zip codes for their collection systems so NRC can identify the licensees associated with each POTW. NRC will request from each Agreement State a list of licensees for the zip codes associated with each POTW. In 1996, the questionnaire was sent to nine test sites to assess the questions and to obtain a better basis for estimating the actual cost (burden hours) to the POTWs.

POTWs That Were Selected to Receive the Questionnaire

The survey was designed to measure radioactive materials in sewage sludge and ash at POTWs across the United States (the 50 States, the District of Columbia, and Puerto Rico). To maximize its effectiveness, the survey will focus on the POTWs associated with licensees with the greatest potential to discharge radioactive material to the sanitary sewer and POTWs in areas known to have high levels of naturally-occurring isotopes such as radium, thorium, and uranium. With these objectives in mind, the list of POTWs to be sent the questionnaire was developed as follows:

1. Select POTWs associated with NRC and Agreement State licensees that have the greatest potential for discharge. NRC developed a list of licensees that have the greatest potential for discharge, and EPA established a list of POTWs associated with these licensees.

2. Select POTWs in areas known to have higher concentrations of NORM in ground and surface water, or that are associated with facilities that may potentially discharge NORM into the sewage collection system.

3. Include POTWs with incinerators because radioactive materials are expected to be at higher concentrations in ash than in sludge. There are about 180 POTWs with active incinerators. However, the number of POTWs with incinerators varies from State to State, and if all the incinerators are sampled, some States will include a disproportionately high number of samples. For these reasons, the survey plans to sample no more than a few POTWs with incinerators in each State.

4. Ensure that the POTWs on the list developed in Steps 1 and 2 are from all geographic areas of the United States (Coastal Plain, Appalachians, etc.) to reflect the regional differences in NORM. If the list developed in Steps 1 and 2 has only a few POTWs in any of the geographic areas, add POTWs from the 479 POTWs which responded to the questionnaire in the first EPA national survey, which was conducted in the late 1980's. The list of POTWs from the 1980's survey was chosen because it includes POTWs for various flow rates, percent industrial flow, and use and disposal practices and is a group of nationally representative POTWs.

5. Add POTWs requested by other ISCORS members and the States.

6. Include a small group of POTWs with low potential for elevated radioactive materials for comparison purposes.

NRC and EPA will jointly send the questionnaire to about 600 POTWs. The Association of Metropolitan Sewerage Agencies and the Water Environment Federation will provide a letter to be included with the questionnaire and will send a guidance document prepared by the National Biosolids Partnership (1999) and regulatory alert to the POTWs preceding the mailing of the questionnaires to help introduce the POTWs to the voluntary survey effort and provide assistance in conducting radiation surveys of their treatment facilities and industrial contributors.

The POTWs will be requested to voluntarily complete and return the completed questionnaires to NRC. NRC will then develop the list of licensees associated with each POTW from the zip codes in their collection system and assign each POTW to a geographic area. This information will be entered into an electronic database so that NRC and EPA can select the POTWs to be sampled. NRC will send letters to the POTWs that returned the questionnaire with lists of licensees in their service area. NRC will also develop a sample return tracking system to follow up on non-respondents.

Selection of POTWs for Sampling and Analysis

From the responses to the questionnaire, about 300 POTWs will be chosen for sampling and analysis. Based on the responses to the questionnaires, the POTWs will be assigned to the categories listed below. A number of POTWs will be sampled from each category. The actual number of samples to be taken from each category will be determined based on the responses to the questionnaire. It is the goal of this survey to obtain a representative number of POTWs from each category during the course of the survey. It is recognized that some factors, such as seasonality, may need to be studied further.

- Type of NRC/Agreement State licensees that could dispose into the sewage collection system

  1. Academic
  2. Medical
  3. Manufacturing and Distribution
  4. Research and Development
  5. Other licensees
  6. No licensees that discharge to the sewage collection system

- Geographic area

  1. Coastal Plain
  2. Appalachians
  3. North Central
  4. Central
  5. Rockies and Basin and Range
  6. Colorado Plateau
  7. California

8. Pacific Northwest, Alaska, Hawaii

Sample Collection and Analysis

The sampling will take place over a one-year period. In areas of high NORM, sampling may be adjusted during some seasons, because there may be seasonal effects to the concentrations of NORM at POTWs.

Each month, over a one-year period, NRC and EPA will jointly send the NRC contractor a list of the POTWs to be sent letters and sample collection materials. The NRC contractor will contact the POTW operators to review the sampling instructions and then mail the letters and sample collection packages to the POTWs. Since POTWs routinely take representative sludge and ash samples to monitor pollutants, the POTWs will use similar procedures to collect samples for this survey. The POTWs will return their samples to the NRC contractor who will assign a code to each POTW to ensure confidentiality.

It is assumed that each POTW will, on average, send two samples of processed sludges and/or ashes, so the total number of samples collected from all POTWs participating in the survey will be about 600. It is expected that each laboratory will analyze about 300 samples.

The physical sampling and analysis procedure that will be used in this survey is described in the Quality Assurance Project Plan for this project. All analyses will be performed using methods typically used for environmental monitoring samples. All the samples will receive gamma spectroscopy, gross alpha, and gross beta analyses. The gross alpha and beta analyses are considered screening analyses. To use resources most efficiently, additional isotope-specific analyses will only be performed on samples with the highest expected concentrations of the isotopes. Each month about ten percent of the samples (about 2 or 3 samples at each lab) will receive additional isotope-specific alpha or beta analysis; the action level for this additional analysis will be chosen based on the highest observed gross alpha and gross beta results from the survey samples analyzed that month.

Additional isotope-specific analysis will be conducted for the following radioactive materials:

beta emitters: strontium-89/90, carbon-14, hydrogen-3 (tritium)

alpha emitters: radium-226, thorium-227/228/230/232, uranium-234/235/238, plutonium-238/239

Radium, thorium and uranium are naturally-occurring radioactive materials. Uranium and plutonium are also found in the effluents from processes in nuclear facilities that are used to produce nuclear fuel for research or power reactors. Strontium is a medical isotope. Plutonium will be analyzed only for POTWs with fuel-cycle or weapons research and development facilities in the collection system. Carbon-14 is both naturally occurring and man-made and is discharged by radiopharmaceutical and research facilities. Tritium is discharged by academic, manufacturing, and weapons research and development facilities.

During the survey, the laboratories will send the analysis results to the ISCORS Sewage

Subcommittee in individual monthly letter reports that discuss the samples analyzed that month and report any lab or field problems. The reviews of these monthly letter reports could lead to changes in the analysis procedures or in the selection of POTWs to be sampled.

An NRC contractor will enter the sample analysis results into an electronic data base and analyze the results. The ISCORS Sewage Subcommittee has formed a working group to perform dose modeling studies to help evaluate the potential risks associated with the radioactive materials measured in the survey. At the conclusion of the sample analyses, the laboratories will report their results to the subcommittee in a final report. The ISCORS Sewage Subcommittee will prepare a final report on the survey results.

D. QUESTIONNAIRE RESULTS FOR THE TEST SITES

The questionnaire was sent to the nine test sites to obtain current site-specific information about the sludge treatment process and disposal practices of each facility. As a result of the experiences with the tests sites and public comments on the January 6, 1997 Federal Register notice, minor changes were made to the questionnaire.

Originally, it was estimated that it would take two hours to complete the questionnaire. For most of the test sites, the respondents took 20 minutes or less. Two respondents needed two hours because of the large number of zip codes in the collection system.

The revised questionnaire is attached in Appendix A.

E. SAMPLE ANALYSIS RESULTS FOR THE TEST SITES

Following the evaluation of the responses to the questionnaires, each test site was sent sample collection packages to obtain sewage samples for analysis at the laboratories. Samples from the nine test POTWs were analyzed by both laboratories to ensure comparability, consistency in sample handling, and validity of analytical methods.

To assist in the evaluation of sample collection procedures used in the survey, the laboratory staffs observed sample collection procedures at two of the test sites. Most test sites sent two sets of sludge or ash samples (one to each laboratory).

A joint NAREL and NRC contractor report presents the findings of the radioanalytical results of various sewage sludge/ash matrices that were analyzed from the test sites. The report compared the analytical results between the laboratories and made recommendations for changes to be implemented before beginning the full survey. All the samples received gamma spectroscopy and gross alpha and beta analyses. For the test cases, all the samples also received additional isotope-specific alpha or beta analysis, although these analyses will only be performed on about ten percent of the samples in the full survey. For the test sites, both labs analyzed all the samples for all the radioactive materials for inter-lab comparisons. The results of the analysis of the test samples are discussed in Appendix B.

The results from the test sites provide the beginning of the data base for the survey. By comparing each month's lab results (by radioactive isotope and for the gross alpha and gross

beta results) to the data collected to date, it should be possible to determine the higher concentrations of radioactive materials. As expected from other studies, the incinerator ash samples in the test sites contained higher concentrations of some radioactive materials than the non-ash samples.

The following changes in the laboratory analysis resulted from the experiences with the test sites and recommendations from the laboratories:

- In general, the laboratories found good agreement between their gamma analyses. Thus the final survey will not require that split samples be analyzed by both labs, as was done with the test survey.

- The gross alpha and gross beta analyses did not provide as good agreement, due to differences in calibration and/or analysis procedures at the labs. Although gross alpha and gross beta measurements are useful as gross screening tools, their accuracy should not be assumed to be better than about an order of magnitude. Therefore, the general magnitude of the results should be evaluated rather than detailed comparisons between individual measurements. For example, if every month, the top few samples were to be screened for further analysis using either gross alpha or gross beta results, the same samples would be selected using either laboratory's data.

- Although C-14 is naturally occurring, it is also man-made, and there are licensees (radiopharmaceutical and research facilities) that could potentially discharge C-14 to sewage collection systems. Because C-14 will not be detected readily by the sludge screening (gross beta) analyses, the screening analyses would not be useful for determining which samples to analyze for C-14. Instead, the association of a POTW with a facility that could discharge C-14 will be used to determine a limited number of samples to be analyzed for C-14.

- Both of the laboratories as well as the subcommittee recommended that tritium be excluded from the analysis because tritium does not reconcentrate due to its chemical behavior in sewage collection systems. However, since tritium was detected in several samples, the laboratories will analyze for tritium until the results indicate that this analysis can be discontinued.

- Return time to the labs should be minimized for detection of short-lived nuclides, as well as for sample preservation (avoidance of sample deterioration). The survey will continue to use overnight shipments of samples to the labs.

- The turnaround time at the POTWs was often not very good. This caused sample batching problems for the labs, which in turn caused increased turnaround times and more analysis expense. Therefore, the sampling instructions and phone calls to the POTWs will emphasize the need for quick sampling and return. A turnaround time of no more than one week is needed for efficient laboratory operation.

- All samples will be analyzed using gross alpha, gross beta and gamma spectroscopy analytical techniques; ten percent of the samples will receive additional isotopic-specific

alpha or beta analyses.

F. REFERENCES

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National Biosolids Partnership, 1999. Characteristics of Radioactivity Sources at Wastewater Treatment Facilities; A Guidance Document for Pretreatment Coordinators.

NRC, 10 CFR Part 20, "Standards for Protection Against Radiation."

NRC, January 6, 1997, Federal Register, Agency Information Collection Activities: Proposed Collection; Comment Request, page 771.

NRC and EPA, May 29, 1997, Draft Guidance of Radioactive Materials in Sewage Sludge/Ash at Publicly Owned Treatment Works (POTWs).

NRC, December 2, 1997, Federal Register, Agency Information Collection Activities: Submission for OMB Review; Comment Request, pages 63730-63731.

APPENDIX A

SEWAGE SLUDGE QUESTIONNAIRE

1. GENERAL INSTRUCTIONS

1.1 Introduction

The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA) request your participation in a joint national survey of the concentrations of radioactive material in sewage sludge (biosolids), ash, and related byproducts.

NRC regulations in 10 CFR 20.2003 currently permit licensee disposal of certain specific quantities of soluble or readily dispersible biological radioactive material into a sanitary sewer system. The EPA regulation that addresses the use or disposal of sewage sludge (40 CFR Part 503) currently does not address radionuclides.

This survey will help determine the adequacy of the present NRC and EPA regulations addressing the discharge of radioactive material to the sanitary sewer system. It will also respond to a recommendation from the General Accounting Office (GAO) to determine the extent to which radioactive contamination in sewage sludge, ash, and related byproducts is occurring (GAO report, "Actions Needed to Control Radioactive Contamination at Sewage Treatment Plants," May 1994).

1.2 When and Where to File

Please return the completed questionnaire within 30 days of date of receipt to the address below:

U.S. Nuclear Regulatory Commission
Attn: Mary Thomas
Mail Stop T-9C24
Washington, DC 20555

1.3 Reporting Period

Please report information for the last 12 months or the last calendar year.

1.4 Further Information

If you require assistance in completing this questionnaire, call Robert Bastian, EPA, at 202-260-7378, (email: bastian.robert@epa.gov) or Mary Thomas, NRC, at 1-800-368-5642-extension 6230 (email: mlt1@nrc.gov).

2. GLOSSARY OF TERMS

End-products are the materials that leave the treatment facility or are disposed of onsite after all processing is completed (e.g., ash from incineration, digested liquid or dewatered cake, dried pellets, compost).

Incineration is the combustion of matter in sewage sludge by high temperatures in an enclosed device.

Land application is the application of sewage sludge to land to either condition the soil or fertilize crops or other vegetation.

Monofills are landfills where only sewage sludge is disposed. Monofills include trenches and area fills.

Municipal solid waste landfill is a landfill that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. Such a landfill may be publicly or privately owned.

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to: domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Surface disposal is the placement of sewage sludge on an area of land for final disposal. It includes monofills, surface impoundments, lagoons, waste piles, and dedicated disposal sites. It does not include treatment and storage of sewage sludge, although placement on land for longer than 2 years is considered surface disposal unless the site owner/operator retains written records demonstrating that the operation constitutes a treatment or temporary storage site.

Treatment works is either a Federally-owned, publicly-owned, or privately-owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Use or disposal includes: land application of bulk sewage sludge, land application of sewage sludge sold or given away in a bag or other container, surface disposal, disposal in a municipal solid waste landfill unit, incineration, or any other use or disposal practice (e.g., vitrification, use in asphalt or brick production, etc.).

SECTION I. TREATMENT WORKS IDENTIFICATION INFORMATION

Mailing Label

Name of the treatment works and physical location (which may differ from the mailing address):

Mailing address of the treatment works (if different):

Name, title, and telephone number of the person who should be contacted regarding information on this questionnaire:

Name, title, address, and telephone number of the person who should be sent the sample collection package:

SECTION II. GENERAL TREATMENT WORKS INFORMATION

1. Indicate below the level(s) of wastewater treatment achieved by this treatment works. (Mark X for all that apply.)

   a. ☐ Primary treatment

   b. ☐ Secondary treatment

   c. ☐ Advanced treatment

2. Provide the annual average daily total flow rate for the last 12 months or the last calendar year (the total volume of wastewater treated by the treatment works in one year divided by 365). Use Gallons per Day (GPD) if your total daily flow rate is less than 10,000 GPD, *or* use Million Gallons per Day (MGD), but not both.

   _____ GPD or MGD (Circle one) over the

   last 12 months or last calendar year (circle one)

3. List the zip codes served by the collection system for this treatment works. This information is needed so NRC can identify licensees that can potentially discharge to your collection system. A list of these licensees will be sent to you in return for providing this information.

4. Identify the *sewage sludge* treatment process(es) used at your treatment works. (Mark X for all that apply.)

a. ☐ Treatment works did not process sewage sludge in the last 12 months or the last calendar year.
Explain: _____

b. ☐ Thickening

c. ☐ Mechanical dewatering by _____
(Please fill in process(es) used.)

d. ☐ Heat treatment/wet air oxidation

e. ☐ Aerobic digestion

f. ☐ Anaerobic digestion

g. ☐ Composting

h. ☐ Lime stabilization (Class B)

i. ☐ Alkaline Stabilization (Class A)

j. ☐ Air drying beds

k. ☐ Heat drying/Pelletizing

l. ☐ Sewage sludge treatment/storage lagoon(s)

m. ☐ Sewage sludge storage bins or piles

n. ☐ Incineration

o. ☐ Other sewage sludge treatment processes (Please specify.)

_____

5. Check the boxes below to indicate the sewage sludge use or disposal practice employed at your facility or by others using/disposing of your sewage sludge or ash. Also describe the product as one of the following: slurry, dewatered cake, compost, pellets, ash, effluent, grit, or other. Note if the product is stored onsite before ultimately being disposed offsite; and if the product is stored onsite, the time stored onsite.

a. ☐ Land application. Product description:

_____

_____

b. ☐ Surface disposal (permanent piles, lagoons, sludge or ash monofills). Product description: _____

_____

c. ☐ Disposal in municipal solid waste landfill. Product description:

_____

_____

d. ☐ Transfer of your sewage sludge or ash to another facility for use or disposal. Product description:

_____

_____

Identify the facility (type, location):

_____

_____

e. ☐ Other use or disposal practice. Product description:

_____

Describe practice:

_____

_____

6. What are the primary sources of drinking water for your community? Check more than one, if applicable.

a. ☐ Municipal water supply from surface water source(s)

b. ☐ Municipal water supply from groundwater well(s)

c. ☐ Private wells

d. ☐ Private water supply from surface water source(s)

7. Does your wastewater collection system receive discharges of drinking water treatment residuals?

☐ Yes ☐ No

8. Does your wastewater collection system include combined sanitary and storm water sewers?

☐ Yes ☐ No

9. Do you receive sludge from other wastewater treatment facilities for processing at your facility?

☐ Yes ☐ No

10. Do you receive septage for processing at your facility?

☐ Yes ☐ No

11. What percentage of the annual average daily total flow rate (response to question 3) is industrial flow?

_____ Percent

12. Have you ever tested for radioactive materials in your sewage sludge?

☐ Yes ☐ No

13. Do you have more than one final sewage sludge production facility location?

☐ Yes ☐ No

Radionuclides In Sewage Sludge and Ash at POTW Test Sites and Comparison With Other Sources of Radioactivity

The purpose of this Appendix is to compare published data on typical concentrations of radionuclides in soil, fertilizer, and building materials to the concentrations of radionuclides found in the sludge and ash samples of a pilot study of nine Publicly Owned Treatment Works (POTWs). The pilot study was conducted by a federal interagency working group (Interagency Steering Committee on Radiation Standards (ISCORS)) to develop sampling and analysis procedures for a nationwide survey of radionuclide concentrations in municipal sewage sludge and incinerator ash, to be conducted in 1999.

Over the last several decades, the U.S. Environmental Protection Agency (EPA) has conducted surveys of sewage sludge, ash, compost, and the other products produced by POTWs, to determine whether concentrations of pollutants that may pose a danger to members of the public or POTW workers are present. Recently, the U.S. Nuclear Regulatory Commission (NRC), the U.S. Department of Energy (DOE), and the U.S. Department of Defense (DOD) have begun a collaborative effort with EPA to conduct a survey of POTWs nationwide to determine potential concentrations of naturally-occurring and commercially utilized sources of radioactive materials in the sludge or ash. The results of this survey will be available in about 2 years.

A pilot study of nine POTWs was conducted to assist the agencies in developing sampling and analysis procedures. It is important to note that the purpose of this pilot study was not to assess the relative safety or hazard of radioactive materials in sewage sludge and incinerator ash, but rather to assess the sampling and analysis procedures. As such, no conclusions were drawn as to the relevance of radioactive material concentrations detected in these samples. This document is intended to help put these raw data in perspective.

SOURCES OF RADIATION EXPOSURE

Radiation in the environment from natural sources is the major source of radiation exposure to man. Radiation exposure results from the naturally-occurring radionuclides in the environment (terrestrial radiation) and direct cosmic (extra-terrestrial) radiation. Naturally-occurring radionuclides are present in some plants and animals. In the human body, for example, radioactive potassium (K-40) is present in bones and soft tissues and is the principal naturally-occurring source of internal radiation exposure. Some sources of natural radiation have been enhanced (concentrated) by human technological activities and include wastes from mineral ores and the petroleum industry, sludge and scale from drinking water treatment, and articles made from naturally-occurring radioactive materials such as thorium in lantern mantles. Together, this radiation is often referred to as "natural" or "background" radiation. It is all around us and cannot be completely avoided. In addition to natural or background radiation, radiation from man-made sources, such as X-ray machines and nuclear reactors and fallout from nuclear weapons testing in the past, also results in a relatively small source of radiation exposure to man.

Naturally-occurring radioactive materials are found in soil and water as well as in materials used to build our homes, such as bricks and stones. Geological formations and soils may contain isotopes of uranium, thorium, radium, radon, and other radioactive elements. The public is generally aware of the radioactive gas, radon (radon-222), which is one of the decay products of the uranium isotope uranium-238 that is found naturally in soil. Radon is often found in the air we breathe and the water we drink. Radon-222 and its decay products contribute most of the radiation exposure received by members of the public.

RADIOACTIVE MATERIALS IN SEWAGE SLUDGE, ASH AND OTHER PRODUCTS

Sewage sludge and ash at POTWs may contain both naturally-occurring and man-made radioactive materials. Water that originates in or moves through geologic deposits containing naturally-occurring radionuclides could result in radioactivity being carried to the treatment facility with storm water runoff or infiltration entering the sewer system, and water treatment plant residuals discharged to the sewer system. Industrial, medical or research facilities may also discharge radioactive materials to the sanitary sewer system in accordance with prescribed State and Federal regulations. In addition, radioactive materials administered to patients for the diagnosis or treatment of illnesses are excreted into the sewer system. Other industrial or residential discharges (such as fertilizer residues) can contain naturally-occurring radioactive materials that are not subject to licensing or regulation.

Tables 1 and 2 provide the concentrations of radionuclides detected during the pilot survey of sludges and ash from nine POTWs, as well as typical ranges of radionuclide concentrations commonly found in U.S. soils and common items such as fertilizers and building materials. The curie (Ci), or fractions of a curie (e.g. picocurie), is the unit for expressing a quantity of radioactivity. The unit normally used to describe the concentrations of radioactivity in the environment is picocuries per gram (pCi/g). A picocurie is one one-trillionth (1/1,000,000,000,000) of a curie. Radionuclide concentrations in these tables have been rounded to the nearest decimal point. Values in these tables do not show uncertainty calculations. Sludge and ash samples from POTWS associated with facilities known to discharge man-made radionuclides were included in the pilot survey. Inclusion in these tables does not imply that the range of radionuclide concentrations presented for the materials is protective of human health.

The ISCORS agencies make no representation as to human or environmental health and safety significance from exposure to radionuclides in the concentrations described in the tables. Further information may be obtained from Robert Bastian at EPA (email bastian.robert@epa.gov or phone 202-260-7378), Behram Shroff at EPA (email schroff.behram@epa.gov or phone 202-564-9707) or Mary Thomas at NRC (email mlt1@nrc.gov or phone 301-415-6230).

Table 1

Pilot Survey Concentration Ranges and Typical U.S. Background Concentrations of Radionuclides in Soil, Fertilizer, and Common Building Materials

(All values are in pCi/g-dry weight)

Radio-nuclide	Soil [1]	Phosphate Fertilizer [2]	Building Materials [1]	Pilot Study Sludge	Pilot Study Ash
Am-241	NDA[3]	NDA	NDA	ND[4]	ND
Ba-140	NDA	NDA	NDA	ND	ND
Be-7 *	NDA	NDA	NDA	ND - 22	4.0 - 13
Bi-212	0.1 - 3.5	0.1 - 4.6	0.1 - 3.7	ND - 2.0	ND - 2.0
Bi-214	0.1 - 3.8	4.0 - 140	2.5 - 5.05	ND - 2.0	.02 - 16
C-14 *	NDA	NDA	NDA	ND	ND
Co-60	NDA	NDA	NDA	ND - 6.0	ND
Cr-51	NDA	NDA	NDA	ND - 4.0	ND
Cs-137	0.1 - 0.2[6]	NDA	NDA	ND - 1.0	0.03 - 0.08
H-3 *	NDA	NDA	NDA	ND - 135	ND
I-125	NDA	NDA	NDA	ND - 1.0	ND - 0.3
I-131	NDA	NDA	NDA	ND - 70	ND - 4.0
K-40 *	2.7-19	32 - 160[7]	0.8 - 30	2.0 - 8.0	14 - 16
Pa-234m *	0.1 - 3.8	4.0 - 140	0.2 - 5.0[5]	ND - 15	ND - 9.0
Pb-212 *	0.1 - 3.5	<0.1 - 4.6	0.1 - 3.7	0.2 - 2.0	1.0 - 2.0
Pb-214 *	0.1 - 3.8	4.0 - 140	0.2 - 5.0	ND - 2.0	2.0 - 17
Pu-238	NDA	NDA	NDA	ND - 0.03	ND - 0.01
Pu-239	NDA	NDA	NDA	ND - 0.08	ND - 0.01
Ra-223 *	<0.1 - 0.2	0.2 - 6.6	<0.1 - 0.2[5]	ND - 0.06	ND
Ra-224 *	0.1 - 3.5	<0.1 - 4.6	0.1 - 3.7[1]	ND - 1.0	0.5 - 4.0
Ra-226 *	0.1 - 3.8	0.1 - 24	0.1 - 3.5	1.0 - 29	3.0 - 25
Ra-228 *	0.1 - 3.5	<0.1- 4.6	0.1 - 3.7	ND - 2.0	2.0 - 9.0

Radio-nuclide	Soil [1]	Phosphate Fertilizer [2]	Building Materials [1]	Pilot Study Sludge	Pilot Study Ash
Sr-89	NDA	NDA	NDA	ND - 7.0	ND - 0.8
Sr-90	NDA	NDA	NDA	ND - 0.7	ND
Th-227 *	<0.1 - 0.2	0.2 - 6.6	<0.1 - 0.2	ND - 0.1	ND
Th-228 *	0.1 - 3.5	<0.1 - 4.6	0.1 - 3.7	ND - 1.0	ND - 2.0
Th-230 *	0.1 - 3.8	4.0 - 140	0.2 - 5.0	ND - 1.0	0.5 - 2.0
Th-232 *	0.1 - 3.5	<0.1 - 4.6	0.1 - 3.7	0.01 - 0.9	0.4 - 1.0
Th-234 *	0.1 - 3.8	4.0 - 140	0.2 - 5.0	ND - 12	2.0 - 5.0
Tl-201	NDA	NDA	NDA	ND - 24	ND
Tl-208 *	0.1 - 3.5	<0.1 - 4.6	0.1 - 3.7	ND - 0.5	ND - 0.6
U-234 *	0.1 - 3.8	4.0 - 140	0.2 - 5.0	0.2 - 44	5.0 - 8.0
U-235 * [8]	<0.1 - 0.2	0.2 - 6.6	<0.1 - 0.2	ND - 3.0	ND - 1.4
U-238 *	0.1 - 3.8	4.0 - 140	0.2 - 5.0 [5]	0.2 - 12	2.0 - 5.0

NOTES

1. R. Tykva and J. Sabol, "Low-Level Environmental Radioactivity - *Sources and Evaluation*," Technomic Publishing Company, Inc., Lancaster, Pennsylvania (1995). This reference is the source of data for concentrations of radionuclides in soil and building materials except for the concentrations of U-238, U-235, and Cs-137 which came from references 5 and 6, respectively. The concentrations of the daughters or decay products of U-238, such as Th-234, Ra-226, etc., those of U-235, such as Th-227 and Ra-223, and those of Th-232 are set equal to those of their respective parent radionuclides by assuming that the daughters are in secular radioactive equilibrium with the parent radionuclides.

2. Source for data on fertilizers: National Council on Radiation Protection and Measurements, 1987, Radiation Exposure of the U.S. Population from Consumer Products and Miscellaneous Sources; NCRP Report No. 95, pp. 24-32. This is the source of data for the concentrations of radionuclides in fertilizers except for the concentration of K-40 in soil which came from the reference in note 7.

3. NDA - No data available

4. ND - Not detected. The radionuclide was not detected in some of the samples during the pilot study. For detection limits for radionuclides, see the tables in "Report to the ISCORS Subcommittee on the Sewage Nuclide Concentration Test Samples," dated

November 23, 1998.

5. M. Eisenbud and T. Gesell, "Environmental Radioactivity," Fourth Edition (1997), Academic Press, New York, New York.

6. Cs-137 concentration range in soil obtained from Figure 4-4, p. 94 of NCRP Report No. 50, "Environmental Radiation Measurements," Recommendations of the National Council on Radiation Protection and Measurements (1976).

7. Source for data on K-40 in fertilizer: S. Cohen and Associates, 1997, Final Draft NORM Waste Characterization; EPA Contract No. 68D20155, WA No.5-09, pp. B-3-1 to B-3-24.

8. Values for U-235 in soil, fertilizer and building materials were based on the concentrations of U-238 in the same materials and the natural ratio of U-235 to U-238.

9. The symbol "<" which appears throughout the table is an abbreviation for the words "less than".

10. * - naturally-occurring radionuclide

Table 2 -
Pilot Survey Radionuclide Concentrations in Sewage Sludge and Ash
(All values are in pCi/g-dry weight)

NUCLIDE	SEWAGE SLUDGE SAMPLE RESULTS	ASH SAMPLE RESULTS
Am-241	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Ba-140	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Be-7	3.2, 3.08, 2.16, 2.8, 2.21, 2.26, 1.04, 0.72, 0.13, 0.11, 0.16, ND, 0.72, 0.47, ND, ND, 0.69 , 0.42, 0.76, 0.76, 7.15, 8.73, 1.30, 1.13, 22.1, 21.9, 18.5, 14.2, ND, ND	4.09, 12.7, 4.25, 4.23, 5.12, 5.34, 5.21
Bi-212	ND, ND, ND, 0.81, ND, ND, ND, ND, ND, 0.18, ND, 0.55, ND, ND, ND, ND, ND, 0.37, ND, 0.47, ND, 0.50, ND, 1.49, ND, 0.76, ND, 0.63, ND, 0.56	ND, 0.81, ND, ND, 1.24, ND, 1.54
Bi-214	0.68, 0.49, 0.47, 0.47, 1.12, 0.61, 0.26, 0.38, 0.21, 0.13, 0.25, 0.24, 0.26, ND, 1.38, 0.40, 1.69, 2.24, 0.45, 0.48, 0.92, 0.57, 1.37, 0.40, 0.40, 0.25, 0.41, 0.22, 0.35, 0.19	3.15, 2.08, 3.12, 9.94, 15.5, 13.7, 15.8
C-14	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Co-60	ND, 0.12, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 6.47, 5.07, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Cr-51	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 3.54, ND, ND, ND, ND, ND, 1.38, ND, ND	ND, ND, ND, ND, ND, ND, ND
Cs-137	0..30, 0.35, 0.07, ND, ND, 0.05, 0.06, ND, 0.03, 0.01, 0.03, 0.02, 0.02, ND, 1.08, 1.09, 0.02, 0.02, ND, ND, 0.06, 0.06, 0.20, 0.18, 0.05, 0.05, 0.08, 0.03, 0.02, 0.02	0.03, 0.08, 0.04, 0.05, 0.08, 0.04, 0.05
H-3	ND, ND, ND, ND, ND, ND, 30.4, ND, 3.75, ND, ND, ND, 1.69, ND, ND, ND, ND, ND, ND, ND, 135.0, ND, ND, ND, ND, ND, 1.65, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
I-125	ND, ND, 0.91, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, 0.26, ND, ND, ND
I-131	60.5, 69.8, 0.49, 0.47, 0.49, 0.49, 13.8, 14.2, ND, ND, ND, ND, 7.47, 13.7, 0.26, 0.71, 0.95, 0.96, 37.4, 38.5, 0.28, 0.51, ND, ND, 9.25, 5.14, 5.55, 2.59, ND, ND	0.16, 4.25, 0.16, 4.18, ND, ND, ND
K-40	4.99, 6.23, 2.97, 3.32, 2.80, 3.29, 3.45, 4.74, 7.70, 4.99, 7.74, 7.08, 3.33, 2.77, 2.22, 2.00, 7.36, 7.87, 2.15, 2.54, 5.04, 5.52, 5.74, 5.51, 4.54, 4.76, 5.12, 4.41, 6.88, 7.29	15.2, 15.4, 15, 14.2, 14.4, 14.4, 15.6
Pa-234m	ND, 9.47, ND, ND, ND, ND, 9.55, ND, 2.37, 1.90, 13.2, 11.4, 11.1, 9.33, 14.9, 11.4, ND, ND, ND, ND, ND, 1.36, ND, 2.64, ND, 3.19, 1.17, 2.49, 10.1, 10.5	8.52, 4.02, 6.21, 2.44, ND, ND, 3.37
Pb-212	0.18, 0.27, 0.57, 0.74, 0.59, 0.56, 0.25, 0.31, 0.25, 0.18, 0.56, 0.63, 0.25, 0.24, 0.22, 0.28, 0.51, 0.60, 0.23, 0.35, 0.49, 0.55, 1.55, 1.53, 0.68, 0.75, 0.80, 0.65, 0.52, 0.55	1.39, 0.91, 1.42, 1.50, 1.94, 1.61, 1.85
Pb-214	0.42, 0.47, 0.59, 0.50, 0.94, 0.45, 0.32, 0.34, 0.25, 0.14, 0.30, 0.24, 0.22, ND, 0.32, 0.29, 1.76, 2.35, 0.39, 0.43, 1.00, 0.63, 1.42, 0.44, 0.38, 0.19, 0.46, 0.24, 0.34, 0.22	3.40, 2.23, 3.42, 11.1, 16.6, 14.6, 17.3

Pu-238	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.02, 0.02, ND, ND, ND, ND, ND, ND, ND, ND, 0.03, ND, ND, ND, ND, ND	0.01, ND, ND, ND, ND, ND, ND
Pu-239	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.02, 0.08, 0.04, ND, ND, ND, ND, 0.04, 0.07, 0.01, ND, ND, ND, ND, 0.01, ND	ND, ND, ND, ND, ND, 0.01, ND
Ra-223	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.06, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Ra-224	ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.19, ND, 0.70, ND, ND, ND, ND, ND, 0.43, ND, ND, ND, 0.49, ND, 1.46, ND, 0.62, ND, ND, ND, 0.59	ND, 0.49, ND, ND, 3.72, ND, 3.31
Ra-226	4.65, 6.19, 1.46, 3.02, 2.36, 1.71, 5.11, 7.82, 1.46, 1.13, 8.92, 1.80, 10.1, 10.6, 29.2, 6.38, 3.61, 4.53, 2.13, 4.08, 2.00, 2.55, 3.09, 3.42, 2.36, 3.25, 2.67, 2.65, 7.83, 1.97	8.34, 2.92, 9.36, 16.7, 25.0, 17.7, 25.1
Ra-228	0.66, ND, 1.05, 1.23, 0.61, 0.86, 0.74, 0.70, 0.37, 0.20, 0.67, 0.70, 0.91, 0.55, 0.46, 0.60, 1.52, 1.60, 1.20, 1.48, 1.24, 1.22, 1.95, 1.77, 1.19, 1.14, 1.40, 1.11, 0.64, 0.66	1.84, 1.58, 1.85, 7.81, 8.60, 8.20, 8.88
Sr-89	ND, ND, ND, ND, 7.12, ND, ND, ND, ND, ND, ND, ND, ND, ND, 1.17, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.56, ND, ND, ND	0.75, ND, ND, ND, ND, ND, ND
Sr-90	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.57, 0.74, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Th-227 alpha	ND, ND, ND, 0.05, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 0.07, ND, ND, ND, 0.06, ND, 0.07, ND, ND	ND, ND, ND, ND, ND, ND, ND
Th-227 gamma	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Th-228	0.80, 0.52, 0.14, 0.62, 0.49, 0.50, 0.29, ND, 0.48, 0.24, 0.45, ND, 0.30, 0.47, 0.24, ND, 0.78, 0.54, 0.47, ND, 0.67, 0.63, 1.39, 0.91, 0.73, 0.71, 0.92, 0.83, 0.49, ND	1.30, ND, 1.13, 2.42, 2.04, 1.65, 1.44
Th-230 alpha	ND, 0.41, 0.16, 0.62, 0.57, 0.58, 0.35, 0.32, 0.42, 0.23, 0.25, 0.33, 0.22, 0.24, 0.16, 0.40, 0.29, 0.29, 0.11, 0.19, 0.53, 0.49, 0.78, 1.07, 0.84, 0.54, 0.99, 0.60, 0.30, 0.43	2.36, 0.99, 2.17, 0.74, 0.72, 0.55, 0.87
Th-230 gamma	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND	ND, ND, ND, ND, ND, ND, ND
Th-232	0.20, 0.26, 0.11, 0.40, 0.30, 0.36, 0.19, 0.35, 0.35, 0.18, 0.23, 0.42, 0.18, 0.27, 0.10, 0.15, 0.24, 0.43, 0.01, 0.01, 0.34, 0.39, 0.92, 0.91, 0.45, 0.55, 0.56, 0.49, 0.28, 0.27	1.19, 0.66, 1.02, 0.48, 0.71, 0.50, 0.35
Th-234	5.00, 5.43, 1.39, ND, 1.48, ND, 5.28, 2.79, 1.88, 0.83, 12.5, 11.9, 7.78, 3.19, 11.8, 7.54, 0.53, ND, 0.42, ND, 0.86, 0.86, 1.58, 1.00, 1.29, 2.18, 1.25, ND, 1.09, 10.6	5.03, 3.70, 5.08, 2.37, 2.42, 4.17, 2.09
Tl-201	ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, ND, 14.0, ND, ND, ND, 4.19, ND, 23.6, ND, ND, ND, ND, ND, 21.5, ND, 5.51, ND, ND	ND, ND, ND, ND, ND, ND, ND
Tl-208	ND, 0.1, ND, 0.26, ND, 0.19, ND, 0.09, ND, 0.06, ND, 0.20, ND, 0.06, ND, 0.05, ND, 0.17, ND, 0.11, ND, 0.17, ND, 0.51, ND, 0.24, ND, 0.22, ND, 0.18	ND, 0.29, ND, ND, 0.65, ND, 0.61
U-234	14.4, 5.95, 0.21, 0.81, 0.98, 0.98, 13.2, 11.8, 4.93, 2.62, 12.2, 12.3, 15.4, 12.7, 44.5, 43.8, 1.46, 1.24, 4.44, 1.61, 1.36, 1.31, 1.61, 2.00, 1.84, 1.76, 1.56, 1.51, 10.9, 10.8	5.16, 5.43, 5.78, 7.34, 7.34, 7.62, 6.01
U-235 alpha	0.55, 0.75, 0.01, 0.03, 0.19, 0.05, 0.35, 0.66, 0.16, 0.12, 0.50, 0.43, 0.58, 0.68, 1.81, 3.06, 0.03, 0.08, 0.15, 0.08, 0.09, 0.09, 0.13, 0.13, 0.17, 0.07, 0.21, 0.09, 0.49, 0.57	0.20, 0.42, 0.18, 0.18, ND, 0.14, 0.24
U-235 gamma	0.20, ND, ND, ND, ND, ND, 0.41, 0.48, 0.04, 0.07, 0.56, 0.52, 0.50, 0.64, 1.87, 2.04, ND, ND, ND, ND, 0.07, 0.15, 0.05, ND, 0.10, ND, 0.14, ND, 0.50, 0.46	0.32, 0.22, 0.34, 0.12, ND, ND, 1.39

U-238	10.3, 5.83, 0.18, 0.75, 0.90, 0.85, 6.72, 6.23, 2.74, 1.46, 9.77, 9.62, 12.5, 10.0, 11.5, 12.0, 0.74, 0.71, 0.95, 0.73, 1.23, 1.15, 1.06, 1.21, 1.33, 1.36, 1.41, 1.13, 8.63, 8.33	4.25, 3.81, 4.75, 3.26, 3.86, 3.33, 2.28
Gross Alpha[1]	21.0, 18.6, 5.0, 5.73, 5.19, 8.78, 13.4, 19.0, 5.17, 7.55, 18.5, 30.8, 23.7, 19.5, 50.8, 48.9, 12.6, 11.7, 16.4, 22.6, 8.70, 13.6, 14.9, 23.9, 10.2, 12.7, 10.5, 10.7, 19.8, 28.5	24.4, 46.5, 41.0, 82.3, 97.9, 92.6, 72.9
Gross Beta[1]	30.8, 22.1, 10.9, 8.58, 12.1, 9.36, 20.4, 15.5, 13.8, 10.8, 29.8, 26.2, 35.3, 21.3, 60.1, 34.8, 19.0, 15.3, 16.8, 10.5, 17.1, 15.9, 22.5, 16.5, 19.0, 12.5, 18.4, 16.8, 34.4, 24.6	51.5, 28.6, 51.4, 77.6, 65.4, 95.4, 47.2

NOTES:

1. Gross alpha and Gross beta - These measurements are generally used as indicators of the presence of alpha and beta emitting radionuclides in a sample. Gross alpha and gross beta activity analyses are used to screen samples to determine the need for nuclide-specific analyses. They were included in the pilot study, but have no corresponding background levels, and thus are not included in Table 1.

ND - Not detected. The nuclide was not detected in some of the samples during the pilot study. See the tables in the EPA National Air and Radiation Environmental Laboratory "Report to the ISCORS Subcommittee on the Sewage Nuclide Concentration Test Samples," November 13, 1998, for detection limits for nuclides.

ATTACHMENT 4

List of addressees for June 21, 1999, letter
(Attachment 2)

CITY OF TUSCALOOSA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 2089
655 RECKER HWY
TUSCALOOSA AL 35403

BIRMINGHAM WATER WORKS AND SEWER BOARD
WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 830110
BIRMINGHAM AL 35283-0010

CITY OF DECATUR WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
PO BOX 2232
DECATUR AL 35602

CITY OF CLANTON
WALNUT CREEK WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 580
CLANTON AL 35045-0580

CITY OF HUNTSVILLE WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P O BOX 308
HUNTSVILLE AL 35804-0308

CITY OF EUFAULA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 26
EUFAULA AL 36027

CITY OF HOMER WASTEWATER TREATMENT PLANT
ATTN: MICHAEL G. HOBBS
3575 HEATH STREET
HOMER AK 99603-7647

CITY OF NORTH POLE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 55109
NORTH POLE AK 99705

CITY OF WRANGELL WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 531
WRANGELL AK 99929

CITY & BOROUGH OF JUNEAU
ATTN: Arlen B. Clark
155 SO. SEWARD STREET
JUNEAU AK 99801

CITY OF FAIRBANKS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 72215
FAIRBANKS AK 99707

ANCHORAGE WATER & WASTEWATER
ATTN: PLANT MANAGER
OPERATIONS DIVISION
325 EAST 94TH COURT
ANCHORAGE AK 99515-2111

PIMA COUNTY WASTEWATER MANAGEMENT
ATTN: PLANT MANAGER
201 NORTH STONE AVE.
TUCSON AZ 85701-1207

PHOENIX 91ST AVENUE WASTEWATER TREATMENT PLANT
91ST AVENUE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2301 WEST WASHINGTON ST.
PHOENIX AZ 85003-1611

Attachment 4

CITY OF AVONDALE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
AVONDALE AZ 85323-2817

CITY OF FLAGSTAFF
ATTN: PLANT MANAGER
RIO DE FLAG WRP
211 W. ASPEN AVE.
FLAGSTAFF AZ 86001-5359

CITY OF N. LITTLE ROCK WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 17898
NORTH LITTLE ROCK AR 72117-0898

CITY OF FORT SMITH WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
13 NORTH "P" STREET
FORT SMITH AR 72902

CITY OF LITTLE ROCK WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
221 E. CAPITOL
LITTLE ROCK AR 72202

CITY OF FORT SMITH WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
13 NORTH "P" STREET
FORT SMITH AR 72901

CITY OF EL DORADO WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
500 N WASHINGTON
P.O. BOX 1587
EL DORADO AR 71731

STUTTGART MUNICIPAL WATERWORKS
ATTN: JAMES M KERR
P.O. BOX 151
STUTTGART AR 72160

SAN MATEO WQCP
ATTN: ROGER A. HALL
2050 DETROIT DRIVE
SAN MATEO CA 94404-1002

CENTRAL CONTRA COSTA WASTEWATER TREATMENT FACILITY
ATTN: CHARLES W BATTS
5019 IMHOFF PLACE
MARTINEZ CA 94553-4392

SAN FRANCISCO CITY & COUNTY
ATTN: THOMAS J. FRANZA
DPW/BWPC
SOUTHEAST WPCP
750 PHELPS STREET
SAN FRANCISCO CA 94124-2161

VSFCD WASTEWATER TREATMENT FACILITY & RECLAMATION
ATTN: J.MICHAEL HOEHN
450 RYDER ST
VALLEJO CA 94590

EAST BAY MUNICIPAL DIST WASTEWATER TREATMENT PLANT
SPECIAL DISTRICT NO. 1
ATTN: JOE CARRASCO
P.O. BOX 24055
OAKLAND CA 94623-1055

CITY OF PALO ALTO WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2501 EMBARCADERO WAY
PALO ALTO CA 94303-3326

SAN JOSE/SANTA CLARA WATER
POLLUTION CONTROL PLANT
ATTN: DALE URKE
700 LOS ESTEROS ROAD
SAN JOSE CA 95134-1099

MARINA COUNTY WATER DISTRICT WASTEWATER
TREATMENT PLANT
ATTN: PLANT MANAGER
11 RESERVATION RD
MARINA CA 93933-2001

L.A. COUNTY SANITATION DISTRICT JOINT WPCP
ATTN: ROBERT HORVATH
P.O. BOX 4998
WHITTIER CA 90607-4998

CITY OF LOS ANGELES WASTEWATER TREATMENT
PLANTS
ATTN: FRANK F. WADA
222 N. SEPULVEDA BLV STE 1600
12000 VISTA DEL MAR
PLAYA DEL REY CA 90245-4300

CITY OF OXNARD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
OXNARD CA 93033-9091

SIMI VALLEY COUNTY SANITATION DISTRICT
WATER QUALITY CONTROL FACILITY
ATTN: PLANT MANAGER
600 WEST LOS ANGELES AVENUE
SIMI VALLEY CA 93065-1642

CITY OF THOUSAND OAKS
HILL CANYON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2100 THOUSAND OAKS BLVD
THOUSAND OAKS CA 91362-2999

CITY OF DAVIS
ATTN: WASTEWATER TREATMENT PLANT
SUPERINTENDENT
23 RUSSELL BLVD.
DAVIS CA 95616-3896

CITY OF MODESTO
WATER QUALITY CONTROL FACILITY
ATTN: PLANT MANAGER
P.O. BOX 642
MODESTO CA 95353-0642

SACRAMENTO REGIONAL WASTEWATER TREATMENT
FACILITY
ATTN: CRAIG LEKVEN
8521 LAGUNA STATION RD.
ELK GROVE CA 95758-9950

STOCKTON REGIONAL WWCF
ATTN: TIMOTHY ANDERSON
2500 NAVY DR.
STOCKTON CA 95206-1191

CITY OF CALEXICO
ATTN: PLANT MANAGER
408 HEBER AVENUE
CALEXICO CA 92231-2892

COACHELLA SANITARY DISTRICT
ATTN: TOM LEVY
P.O. BOX 1058
1515 SIXTH STREET
COACHELLA CA 92236-1787

CITY OF SAN DIEGO
METRO WASTEWATER DEPT.
ATTN: ALAN LANGWORTHY
600 B STREET
SUITE 500
SAN DIEGO CA 92101-1033

ORANGE COUNTY SANITATION DISTRICT #1
ATTN: PLANT MANAGER
P.O. BOX 8127
10844 ELLIS AVE
FOUNTAIN VALLEY CA 92708-7018

CHINO BASIN MUNI WATER DISTRICT
ATTN: PLANT MANAGER
9400 CHERRY AVE.
P.O. BOX 697
RANCHO CUCAMONGA CA 91729-0661

SAN BERNADINO WRF
ATTN: PLANT MANAGER
300 NORTH D STREET
SAN BERNARDINO CA 92418

SOUTH TAHOE PUBLIC UTILITY DISTRICT
ATTN: PLANT MANAGER
1275 MEADOW CREST DR.
SOUTH LAKE TAHOE CA 96150

CITY OF LIVERMORE WATER POLLUTION CONTROL FACILITY
ATTN: STEVE GITTINGS
1052 SOUTH LIVEREMORE AVE.
LIVERMORE CA 94550

RUNNING SPRINGS WATER DISTRICT
ATTN: LYLE FERGUSON
31242 HILLTOP BLVD.
P.O. BOX 2206
RUNNING SPRINGS CA 92382

MADERA COUNTY MAINTENANCE DISTRICT No.22A
OAKHURST WASTE WATER TREATMENT FACILITY
ATTN: JOE BECK
MADERA CO. ENGINEERING DEPT.
135 W. YOSEMITE AVE.
MADER CA 93637

STEAMBOAT SPRINGS WASTEWATER TREATMENT PLANT
ATTN: GILBERT ANDERSON
P.O. BOX 880339
STEAMBOAT SPRINGS CO 80488

LEADVILLE WASTEWATER TREATMENT PLANT
ATTN: JAMES BERTHOD
P.O. BOX 253
911 SOUTH HIGHWAY 24
LEADVILLE CO 80461

LA JUNTA WASTEWATER TREATMENT PLANT
ATTN: GLENN PLEASANTS
P.O. BOX 489
LA JUNTA CO 81050

FORT LUPTON WASTEWATER TREATMENT PLANT
ATTN: ROBERT R. ALBERTS
130 SOUTH MCKINLEY
P.O. BOX 148
FORT LUPTON CO 80621

BRIGHTON WASTEWATER TREATMENT PLANT
ATTN: EDWARD BURKE
22 S. 4TH AVENUE
BRIGHTON CO 80601

EATON WASTEWATER TREATMENT PLANT
ATTN: GEORGE SPAEDT
223 FIRST STREET
EATON CO 80615

DURANGO WASTEWATER TREATMENT PLANT
ATTN: ROGER MILLER
949 SECOND AVENUE
DURANGO CO 81301-5109

75TH ST WASTEWATER TREATMENT PLANT
ATTN: PAUL HEPPLER
4049 75TH ST
BOULDER CO 80301

AURORA WASTEWATER TREATMENT PLANT/SAND CRK WW RECL
ATTN: PLANT MANAGER
SAND CREEK WASTEWATER RECLAIM FACILITY
11405 EAST 30TH AVENUE
AURORA CO 80010

METRO WASTEWATER REC. FACILITY
ATTN: STEVE PEARLMAN
6450 YORK STREET
DENVER CO 80229-7499

PUEBLO WASTEWATER TREATMENT PLANT
ATTN: DON GARRISON
211 EAST D STREET
PUEBLO CO 81003

MONTROSE WASTEWATER TREATMENT PLANT
ATTN: ALLEN CORIELL
P.O. BOX 790
MONTROSE CO 81402-0790

GREELEY WASTEWATER TREATMENT PLANT
ATTN: THOMAS DINGEMAN
300 E. 8TH STREET
GREELEY CO 80631

RIFLE WASTEWATER TREATMENT PLANT/NORTH WASTEWATER TREATMENT
ATTN: SHERWIN BARTO
202 RAILROAD AVE.
P.O. BOX 1908
RIFLE CO 81650

GUNNISON WASTEWATER TREATMENT PLANT
ATTN: BRET SPORE
P.O. BOX 239
GUNNISON CO 81230

DANBURY WPCP
ATTN: PLANT MANAGER
155 DEER HILL AVE
DANBURY CT 06810

EAST HARTFORD WPCP (MDC)
ATTN: PLANT MANAGER
P.O. BOX 800
HARTFORD CT 06101

ENFIELD WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
820 ENFIELD ST
ENFIELD CT 06082

FARMINGTON WATER POLLUTION CONTROL FACILITY
ATTN: WILLIAM J. KAMINSKI
1 MONTEITH DR
FARMINGTON CT 06032-1053

MDC/HARTFORD WPCP
ATTN: PLANT MANAGER
240 BRAINARD RD.
P.O. BOX 800
HARTFORD CT 06142-0800

MATTABASSETT DISTRICT COMM
ATTN: PLANT MANAGER
P.O. BOX 137
REGIONAL SEWER AUTHORITY
CROMWELL CT 06416

NEW LONDON SEWERAGE TREATMENT PLANT
ATTN: JAMES R. MCDERMOTT
TOWN HALL MUNICIPAL BLDG
181 CAPTAIN'S WALK
NEW LONDON CT 06320

NORTH HAVEN WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
TOWN HALL
18 CHURCH ST.
NORTH HAVEN CT 06473

VERNON WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
TOWN HALL
P.O. BOX 22
VERNON CT 06066

WATERBURY WATER POLLUTION CONTROL FACILITY
ATTN: GREG WEDMAN
199 MUNICIPAL RD.
WATERBURY CT 06708

NAUGATUCK WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
500 CHERRY ST.
NAUGATUCK CT 06770

WEST HAVEN WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
CITY HALL
355 MAIN ST.
WEST HAVEN CT 06516

STAMFORD WPF
ATTN: JEANETTE SEMON
HARBOR VIEW AVE
STAMFORD CT 06902

CITY OF GROTON WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
P.O. BOX 820
GROTON CT 06340

NEW CANAAN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
SOUTH MAIN ST.
NEW CANAAN CT 06840

SEAFORD WASTE TREATMENT PLANT
ATTN: JEFFREY W DEATS
302 EAST KING ST
CITY HALL
SEAFORD DE 19973

CITY OF WILMINGTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
800 FRENCH STREET
WILMINGTON DE 19801

KENT COUNTY LEVY COURT-WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
414 FEDERAL STREET
DOVER DE 19901

DELAWARE CITY WASTEWATER TREATMENT PLANT
NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS
ATTN: PLANT MANAGER
2701 CAPITOL TRL
NEWARK DE 19711

WATER RESOURCES MANAGEMENT DIVISION
ATTN: JAMES A. COLLIER
2100 MARTIN LUTHER KING JR. AVE. SE
WASHINGTON D.C. 20020

MULBERRY SEWERAGE TREATMENT PLANT
ATTN: JACK R. GOODING
500 SECOND STREET NW
MULBERRY FL 33860

DEPT OF SEWERS-CITY HALL
ATTN: HOWARD F. CURREN ATWP
306 E JACKSON ST - 6TH FLOOR
TAMPA FL 33602

ALLRED WASTEWATER TREATMENT FACILITY
ATTN: BOBBY TILLMAN
P.O. BOX 186
SR655 RECKER HWY
AUBURNDALE FL 33823

JAX BUCKMAN ST SEWERAGE TREATMENT PLANT #1
ATTN: PLANT MANAGER
JAX DEPT OF PUBLIC UTILITY
2221 BUCKMAN STREET
JACKSONVILLE FL 32206-3396

BARTOW WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
450 NORTH WILSON AVE.
BARTOW FL 33831

PLANT CITY WASTEWATER TREATMENT PLANT
ATTN: STEVE SAFFELS
P.O. BOX C
PLANT CITY FL 33564

GAINESVILLE MAIN ST #2
ATTN: CHEATHAM JOSEPH B
P.O. BOX 490
GAINESVILLE FL 32602

FERNANDINA BEACH-MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: NATHAN BOYD
P.O. BOX 668
FERNANDINA BEACH FL 32035-0668

STARKE-MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. DRAWER C
STARKE FL 32091

ESCAMBIA CNTY-AVONDALE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
401 W GOVERNMENT ST
PENSACOLA FL 32501

MIAMI-DADE NO DIST WTF
ATTN: PLANT MANAGER
2575 N.E. 151ST. STREET
NORTH MIAMI FL 33133

WINTER HAVEN-WAHNETA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
4400 POLLARD RD
WINTER HAVEN FL 33880

IRON BRIDGE RD SEWERAGE TREATMENT PLANT
ATTN: CHARLES THOMPSON
5100 L B MCLEOD RD
ORLANDO FL 32811

LAKELAND - GLENDALE WASTEWATER TREATMENT PLANT
ATTN: PATRICK MURPHY
1825 GLENDALE STREET
LAKELAND FL 33803

ST. PETERSBURG SOUTHWEST WASTEWATER
TREATMENT PLANT
ATTN: DAVID SHULMISTER
1635 THIRD AVENUE NORTH
ST. PETERSBURG FL 33713

SARASOTA - WHITAKER BAYOU
ATTN: PLANT MANAGER
1750 12TH STREET
SARASOTA FL 34236

MIAMI DADE SOUTH DISTRICT WASTEWATER
TREATMENT PLANT
ATTN: ROBERT CULMER
4200 SALZEDO ST.
CORAL GABLES FL 33146

JAMES B. MESSERLY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
605 MUNICIPAL BUILDING
AUGUSTA GA 30911

ALBANY-JOSHUA STREET WPCP
ATTN: B.J. HAYES
P.O. BOX 447
ALBANY GA 31702-0447

GAINESVILLE FLAT CREEK WPCP
ATTN: STANLEY MIZE
P.O. BOX 2496
GAINESVILLE GA 30503

DAWSON WPCP
ATTN: PLANT MANAGER
P.O. BOX 190
DAWSON GA 31742

ATLANTA WPCPs
ATTN: PLANT MANAGER
121 MEMORIAL DRIVE
ATLANTA GA 30335

RM CLAYTON WPCP
ATTN: LARRY NICHOLS/PHILLIP G. LEWIS
55 TRINITY ST.SW
#5800
ATLANTA GA 30335-0329

BUFORD WESTSIDE CS
ATTN: EARLEY L. BIFFLE
95 SCOTT STREET
BUFORD GA 30518

SNAPFINGER CR SEWERAGE TREATMENT PLANT
ATTN: JOHN M. SPOTTS
1580 ROADHAVEN DRIVE
STONE MOUNTAIN GA 30083

CORDELE WPCP
ATTN: CLARENCE PHEIL
P.O. BOX 569
CORDELE GA 31015

MACON-ROCKY CR WPCP
ATTN: DON THOMPSON
P.O. BOX 108
MACON GA 31298

COBB CO WPCPs
ATTN: PLANT MANAGER
680 SOUTH COBB DR.
MARIETTA GA 30060

MACON-ROCKY CR WPCP
ATTN: EARNEST MATHEWS
1400 PRESIDENT STREET
P.O. BOX 1027
SAVANNAH GA 31404

SANDY RUN WPCP
ATTN: PAUL TICKERHOOF
P.O. BOX 1488
WARNER ROBINS GA 31099-1488

DECATUR CO-IND. AIRPACK WPCP
ATTN: MIKE MILLER
P.O. BOX 735
BAINBRIDGE GA 31717

HAZLEHURST WASTEWATER TREATMENT PLANT
ATT: MR. BLAN WILLIAMS
P.O. BOX 512
HAZLEHURST GA 31539

AMERICUS MILL CRK
WPCP
ATTN: PLANT MANAGER
P.O. BOX 526
AMERICUS GA 31709

SAND ISLAND WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
650 SOUTH KING ST.
HONOLULU HI 96813

COUNTY OF HAWAII
ATTN: PLANT MANAGER
HILO WASTEWATER TREATMENT FACILITY
25 AUPUNI STREET
HILO HI 96720-4245

CITY OF ABERDEEN WASTEWATER TREATMENT PLANT
ATTN: GERALD E. GIESBRECHT
P.O. BOX 190
ABERDEEN ID 83210

CITY OF BOISE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
790 LANDER STREET
BOISE ID 83703

CITY OF SANDPOINT
ATTN: JEFF ROY JORDINE
CITY HALL
110 MAIN STREET
SANDPOINT ID 83864

CITY OF IDAHO FALLS
ATTN: FRED H ROWE
P.O. BOX 50220
IDAHO FALLS ID 83405

CITY OF TWIN FALLS
ATTN: PLANT MANAGER
P.O. BOX 1907
321 2ND AVENUE EAST
TWIN FALLS ID 83303

CITY OF MOSCOW
ATTN: PLANT MANAGER
P.O. BOX 9203
122 E. FOURTH STREET
MOSCOW ID 83843

CITY OF POCATELLO
ATTN: JON B HERRICK
P. O. BOX 4169
POCATELLO ID 83205-4169

CITY OF NAMPA
ATTN: PLANT MANAGER
411 3RD STREET
SOUTH NAMPA ID 83651

WOODDALE SEWERAGE TREATMENT PLANTS
ATTN: PLANT MANAGER
404 NORTH WOOD DALE ROAD
WOOD DALE IL 60191

PLAINFIELD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1400 NORTH DIVISION STREET
PLAINFIELD IL 60544

NEW LENOX SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
701 WEST HAVEN AVENUE
NEW LENOX IL 60451

LINDENHURST SEWERAGE DISTRICT
ATTN: PLANT MANAGER
2301 EAST SAND LAKE ROAD
LINDENHURST IL 60046

FOX METRO WRD
ATTN: PLANT MANAGER
682A ROUTE 31
OSWEGO IL 60543

MORRIS SEWERAGE TREATMENT PLANT
ATTN: OTTIA M. KING JR
222 WAUPONSE STREET
MORRIS IL 60450

MONMOUTH SEWERAGE TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 386
MONMOUTH IL 61462

GLENBARD WASTEWATER AUTHORITY
ATTN: PLANT MANAGER
21 W. 551 BEMIS ROAD
GLEN ELLYN IL 60137

BARRINGTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
206 SOUTH HOUGH STREET
BARRINGTON IL 60010

JACKSONVILLE SEWERAGE TREATMENT PLANT
ATTN: JAMES D. BYUS
MUNICIPAL BUILDING
200 WEST DOUGLAS
JACKSONVILLE IL 62650

GENESEO SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
101 SOUTH STATE STREET
GENESEO IL 61254

BENSENVILLE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
700 WEST IRVING PARK ROAD
P.O. BOX 330
BENSENVILLE IL 60106

SPRINGFIELD SEWER DISTRICT SUGAR CREEK
ATTN: ROGER C. ANDREW
3017 NORTH 8TH STREET
RURAL ROUTE #12
SPRINGFIELD IL 62707

MUNDELEIN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
440 EAST HAWLEY STREET
MUNDELEIN IL 60060

JOLIET EASTSIDE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
150 WEST JEFFERSON STREET
JOLIET IL 60431

BATAVIA WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
100 NORTH ISLAND AVENUE
BATAVIA IL 60510

HINSDALE SEWER DISTRICT MCELWAIN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 179
HINSDALE IL 60522-0179

MENDOTA SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
CITY HALL
607 8TH AVENUE
MENDOTA IL 61342

WEST CHICAGO SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
475 MAIN STREET
P.O. BOX 488
WEST CHICAGO IL 60186-0488

FREEPORT SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
230 W. STEPHENSON STREET
FREEPORT IL 61032

MOKENA SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
11004 CARPENTER STREET
MOKENA IL 60448

ITASCA SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
100 NORTH WALNUT AVENUE
ITASCA IL 60143

CAROL STREAM SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
500 NORTH GARY AVENUE
CAROL STREAM IL 60188

BARTLETT WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
228 SOUTH MAIN STREET
BARTLETT IL 60103

BLOOMINGTON-NORMAL SEWER DISTRICT
ATTN: PLANT MANAGER
WEST OAKLAND AVENUE
P O BOX 3307
BLOOMINGTON IL 61702-3307

MWRDGC WASTEWATER TREATMENT PLANTS
ATTN: RONALD A. NEUBAUER
100 EAST ERIE STREET
CHICAGO IL 60611

DEERFIELD WRF
ATTN: PLANT MANAGER
850 WAUKEGAN ROAD
DEERFIELD IL 60015

DOWNERS GROVE SEWER DISTRICT WTC
ATTN: PLANT MANAGER
2710 CURTISS STREET
DOWNERS GROVE IL 60515

FOX RIVER WRD SOUTH SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 92
ELGIN IL 60121-0092

ELMHURST WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPARTMENT
ATTN: PLANT MANAGER
209 NORTH YORK ROAD
ELMHURST IL 60126

HIGHLAND SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
1115 BROADWAY
HIGHLAND IL 62249

KEWANEE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
200 W. THIRD STREET
KEWANEE IL 61443

LIBERTYVILLE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
118 WEST COOK AVENUE
LIBERTYVILLE IL 60048-1876

LOCKPORT SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
222 EAST 9TH STREET
LOCKPORT IL 60441

NSSD SEWERAGE TREATMENT PLANTS
ATTN: BYERS H. WILLIAM
RUSSELL ROAD
P.O. BOX 750
GURNEE IL 60031

OTTAWA SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
301 W. MADISON STREET
OTTAWA IL 61350

PERU SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
1727 4TH STREET
P.O. BOX 299
PERU IL 61354

ROSELLE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
474 CONGRESS CIRCLE NORTH
ROSELLE IL 60172

SALT CREEK SANITARY DISTRICT
ATTN: PLANT MANAGER
P.O. BOX 445
201 SOUTH ROUTE 83
VILLA PARK IL 60181-0445

SPRING VALLEY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
215 NORTH GREENWOOD STREET
SPRING VALLEY IL 61362

BOLINGBROOK SEWERAGE TREATMENT PLANT #1
ATTN: PLANT MANAGER
375 WEST BRIARCLIFF ROAD
BOLINGBROOK IL 60440

GRANITE CITY SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
2000 EDISON AVENUE
GRANITE CITY IL 62040

ADDISON NORTH SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
131 WEST LAKE STREET
ADDISON IL 60101

NAPERVILLE SPRINGBROOK SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
400 SOUTH EAGLE STREET
NAPERVILLE IL 60566-7020

ELBURN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
301 EAST NORTH STREET
ELBURN IL 60119

CREST HILL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
1610 PLAINFIELD ROAD
CREST HILL IL 60435

GREENFIELD MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: LARRY HOLLINGSWORTH
809 S. STATE ST
P. O. BOX 456
GREENFIELD IN 46140

GREENSBURG MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: JAMES A. FLETCHER
CITY HALL
314 N. MICHIGAN
GREENSBURG IN 47240

GREENCASTLE MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
WEST COLUMBIA STREET
GREENCASTLE IN 46135

HAMMOND MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: ELI T. BROMLEY
5143 COLUMBIA AVE.
HAMMOND IN 46327

CITY OF INDIANAPOLIS
BELMONT MUNICIPAL WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2700 S. BELMONT
INDIANAPOLIS IN 46221

MICHIGAN CITY SANITARY DISTRICT
ATTN: PLANT MANAGER
1100 E. EIGHTH STREET
BOX 888
MICHIGAN CITY IN 46360

SCHERERVILLE MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
833 W LINCOLN HWY
SUITE B20W
SCHERERVILLE IN 46375-1648

SEYMOUR MUNICIPAL SEWERAGE TREATMENT PLANT
CITY OF SEYMOUR
ATTN: PLANT MANAGER
220 N. CHESTNUT
SEYMOUR IN 47274

SOUTH BEND MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: KARL R. KOPEC
227 W. JEFFERSON RM. 1316
CITY-COUNTY BUILDING
SOUTH BEND IN 46601

WEST LAFAYETTE MUNICIPAL SEWERAGE TREATMENT PLANT
TOWN BOARD OF WEST LAFAYETTE
ATTN: PLANT MANAGER
609 WEST NAVAJO STREET
WEST LAFAYETTE IN 47906

TERRE HAUTE MUNICIPAL SEWERAGE TREATMENT PLANT
WORKS AND SAFETY
ATTN: PHILIP R.THOMPSON
17 HARDING AVENUE
TERRE HAUTE IN 47807

MUNCIE MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: JAMES P. CAREY
5150 KILGORE AVE.
MUNCIE IN 47304

MISHAWAKA MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
600 E. THIRD ST.
MISHAWAKA IN 46544

ELKHART MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
229 S. 2ND ST.
ELKHART IN 46516

EVANSVILLE SEWERAGE TREATMENT PLANT-EASTSIDE
ATTN: PLANT MANAGER
1500 WATERWORKS ROAD
EVANSVILLE IN 47713

BLOOMINGTON BLUCHER POOLE SEWERAGE TREATMENT PLANT
ATTN: MICHAEL M. PHILLIPS
P.O. BOX 1216
BLOOMINGTON IN 47402

DYER MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
ONE TOWN SQUARE
DYER IN 46311

CITY OF FORT MADISON SEWERAGE TREATMENT PLANT
ATTN: ED F. MERSCHMAN
FOOT OF 20TH STREET
FORT MADISON IA 52627

CITY OF FAIRFIELD SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
CITY HALL
FAIRFIELD IA 52556-0850

CITY OF CEDAR RAPIDS SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
CITY HALL
CEDAR RAPIDS IA 52401

CITY OF DAVENPORT SEWERAGE TREATMENT PLANT
ATTN: JAMES D. RESNICK
CITY HALL
DAVENPORT IA 52808-0000

CITY OF DUBUQUE SEWERAGE T EATMENT PLANT
ATTN: PAUL J. HORSFALL
DUBUQUE IA 52001-4845

HUTCHINSON SEWERAGE TREATMENT PLANT
ATTN: REG JONES
P.O. BOX 1567
HUTCHINSON KS 67501

KANSAS CITY WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
701 NORTH 7TH ST
7TH FLOOR
KANSAS CITY KS 66101

DERBY WASTEWATER TREATMENT PLANT
ATTN: MICHAEL YOUNGER
611 MULBERRY
DERBY KS 67037

MT STERLING SEWERAGE TREATMENT PLANT
ATTN: STEVEN M. TURPAK
C/O MT STERLING WATER & SEWER
BOX 392 300 E MAIN
MT. STERLING KY 40353

LEXINGTON TOWN BRANCH SEWERAGE TREATMENT PLANT
C/O LEX FAYETTE URBAN CO GOVT
ATTN: PLANT MANAGER
1240 LISLE RD
LEXINGTON KY 40511

PADUCAH SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
601 NORTHVIEW AVE
P.O. BOX 2267
PADUCAH KY 42002-2267

DANVILLE SEWERAGE TREATMENT PLANT
ATTN: CHARLES M. ELLIOTT
P.O. BOX 670
DANVILLE KY 40423

CITY OF E BATON ROUGE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2443 RIVER ROAD
BATON ROUGE LA 70802

TOPEKA
OAKLAND SEWERAGE TREATMENT PLANT
ATTN: STEVE SMITH
1115 NORTH POPLAR
TOPEKA KS 66603

JOHNSON COUNTY UWWD SEWERAGE TREATMENT PLANTS
ATTN: PLANT MANAGER
6000 LAMAR
P.O. BOX 39
SHAWNEE MISSION KS 66201

LAWRENCEBURG SEWERAGE TREATMENT PLANT
ATTN: ROBERT D. RADSHAW
C/O ROBERT BRADSHAW
205 E WOODFORD ST
LAWRENCEBURG KY 40342

MSD MORRIS FORMAN SEWERAGE TREATMENT PLANT
ATTN: THOMAS J. MCBRIDE
C/O LOUISVILLE/JEFF CO MSD
700 W LIBERTY ST
LOUISVILLE KY 40203-1913

SHEPHERDSVILLE WASTEWATER TREATMENT PLANT
ATTN: VERNON V. CLEMENTS
1015 BEECH STREET
P.O. BOX 400 1005 W SECOND ST
SHEPHERDSVILLE KY 40165

CITY OF LAKE CHARLES WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
128 W. RAILROAD AVE.
LAKE CHARLES LA 70601

CITY OF NEW ORLEANS WASTEWATER TREATMENT PLANTS
ATTN: DONALD G. CROWDER
OFFICE OF THE EXECUTIVE DIRECTOR
625 ST JOSEPH ST ROOM 235
NEW ORLEANS LA 70165

CITY OF ABBEVILLE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
101 NORTH STATE ST.
ABBEVILLE LA 70510

ST. JOHN THE BAPTIST PARISH-SD #2L
ATTN: PLANT MANAGER
1800 W. ALINE HWY
LAPLACE LA 70068

TALLULAH/RICHMOND SEWERAGE TREATMENT PLANT
ATTN: THOMAS J. MORELAND
204 N CEDAR ST
TALLULAH LA 71282

BRUNSWICK SEWER DISTRICT
ATTN: PLANT MANAGER
WASTEWATER TREATMENT PLANT
10 PINE TREE ROAD
BRUNSWICK ME 04011

SOUTH PORTLAND SEWERAGE TREATMENT PLANT #1
ATTN: EDWIN O. BERRY
PO BOX 9422
S. PORTLAND ME 04116

BANGOR WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
760 MAIN ST
BANGOR ME 04401

CITY OF PORTLAND-PEAKS ISL. WASTEWATER
TREATMENT PLANT
ATTN: MIKE GREENE
ISLAND AVE. AT WELCH ST.
PORTLAND ME 04104

JEFFERSON PARISH SEWERAGE TREATMENT PLANTS
DEPT. OF PUBLIC UTILITIES
ATTN: DENNIS P. BUTLER
P.O. BOX 10242
JEFFERSON LA 70181

JEFFERSON PARISH DEPARTMENT PUBLIC UTILITY
ATTN: PLANT MANAGER
1221 ELMWOOD PARK BLVD.
SUITE 803
HARAHAN LA 70123

AUGUSTA WASTEWATER TREATMENT PLANT
ATTN: MICHAEL A GROVE
RFD #2
BOX 7 170 HOSPITAL ST.
AUGUSTA ME 04330

SANFORD SEWERAGE DISTRICT
ATTN: FRANCIS L. ANDERSON
RIVER STREET
P.O. BOX 338
SPRINGVALE ME 04083-0338

YARMOUTH WATER TREATMENT PLANT
ATTN: MICHAEL A. CROSBY
PO BOX 907
YARMOUTH ME 04096

LEWISTON-AUBURN WATER POLLUTION CONTROL
FACILITY
ATTN: PETER L. COENEN .
535 LINCOLN STREET
LEWISTON ME 04240

SCARBOROUGH WASTEWATER TREATMENT PLANT
ATTN: CHARLES J. ANDRESON
415 BLACK POINT ROAD
SCARBOROUGH ME 04074

OCEAN CITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
6405 SEA BAY DRIVE
P.O. BOX 158
OCEAN CITY MD 21842

BACK RIVER WASTEWATER TREATMENT PLANT
ATTN: ROBERT T. MOHR
8201 EASTERN AVENUE
BALTIMORE MD 21224

ABERDEEN WASTEWATER TREATMENT FACILITY
ATTN: J. KENNETH BENNER
P.O. 70
3 WEST BELAIR AVE.
ABERDEEN MD 21001

PATAPSCO WASTEWATER TREATMENT PLANT
DEPT OF PUBLIC WORKS
ATTN: LAWRENCE SLATTERY
BALTIMORE MD 21202

FREDERICK CITY WASTEWATER TREATMENT PLANT
ATTN: JOHN KENDALL
111 AIR PORT DRIVE EAST
FREDERICK MD 21701

ANNAPOLIS WASTEWATER TREATMENT PLANTS
ATTN: MICHEAL P. BONK
2662 RIVA ROAD
ANNAPOLIS MD 21401-7374

WESTERN BRANCH WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
14501 SWEITZER LANE
LAUREL MD 20707

CITY OF HAGERSTOWN SEWERAGE TREATMENT PLANT
WATER POLLUTION CONTROL DEPARTMENT
ATTN: PLANT MANAGER
1 CLEAN WATER CIRCLE
HAGERSTOWN MD 21740

BALLENGER CREEK WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
7303 MARCIE'S CHOICE LANE
FREDERICK MD 21701

MATTAWOMAN WASTEWATER TREATMENT PLANT
ATTN JERRY MICHAEL
P.O. BOX - B
LA PLATA MD 20646

LITTLE PATUXENT WASTEWATER TREATMENT PLANT
ATTN: DANIEL WARD
3430 COURT HOUSE DRIVE
ELLICOTT CITY MD 21043

AYER WASTEWATER TREATMENT PLANT
ATTN: ROBERT M. SMITH
BROOK STREET
AYER MA 01432

AMHERST WASTEWATER TREATMENT PLANT
U OF MASS CAMPUS
ATTN: PLANT MANAGER
586 SOUTH PLEASANT STREET
AMHERST MA 01002

BOSTON-MWRA
ATTN: RICK MILLS
CHARLESTOWN NAVY YARD
100 FIRST AVE.
BOSTON MA 02129

FALL RIVER SCS & SEWERAGE TREATMENT PLANT
ATTN: RONALD A. LARO
ONE GOVERNMENT CENTER
FALL RIVER MA 02720

SOUTH HADLEY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
10 INDUSTRIAL DRIVE
SOUTH HADLEY MA 01075

SOUTH ESSEX SEWERAGE DISTRICT
ATTN: PLANT MANAGER
P.O. BOX 989
50 FORT AVE
SALEM MA 01970

LYNN WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
TWO CIRCLE AVE
LYNN MA 01905

MILFORD WASTEWATER TREATMENT FACILITY
ATTN: JOHN MAININI
P.O. BOX 644
MILFORD MA 01757

PLYMOUTH WASTEWATER TREATMENT PLANT
DEPARTMENT OF PUBLIC WORKS
ATTN: PLANT MANAGER
11 LINCOLN STREET
PLYMOUTH MA 02360

LOWELL REGIONAL WASTEWATER UTILITY
ATTN: PLANT MANAGER
FIRST ST BLVD
LOWELL MA 01850

CONCORD WASTEWATER TREATMENT FACILITY
ATTN: JAMES M. DRAPEAU
509 BEDFORD ST
CONCORD MA 01742

NEW BEDFORD WATER TREATMENT PLANT
ATTN: PLANT MANAGER
FORT RODMAN
NEW BEDFORD MA 02740

MEDFIELD WASTEWATER TREATMENT FACILITY
ATTN: PETER IAFALLA
99 BRIDGE ST
459 MAIN STREET
MEDFIELD MA 02052

BROCKTON WASTEWATER TREATMENT PLANT
ATTN: TANZL SOSSIO
303 OAK HILL WAY
BROCKTON MA 02401

EAST HAMPTON WASTEWATER TREATMENT PLANT
ATTN: DAVID M. GAGNON
1 NORTHAMPTON STREET
EASTHAMPTON MA 01027

DARTMOUTH WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
759 RUSSELL MILLS RD
SOUTH DARTMOUTH MA 02748

SPRINGFIELD WASTEWATER TREATMENT PLANT
WATER AND SEWER COMMISSION
ATTN: GEORGE A ROMANO
SPRINGFIELD MA 01101-0995

MANSFIELD WATER TREATMENT PLANT
ATTN: GERALD L. ST. HILAIRE
TOWN OFFICE
50 WEST STREET
MANSFIELD MA 02048

BILLERICA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
365 BOSTON RD
BILLERICA MA 01821

UPPER BLACKSTONE WPAD
ATTN: PAUL A. CARON
50 ROUTE 20
MILLBURY MA 01527

CHARLES RIVER PCD
ATTN: ROBERT D. MCRAE
66 VILLAGE STREET
MEDWAY MA 02053

WAYNE CO-DPW WYANDOTTE WASTEWATER TREATMENT PLANT
ATTN: ROBERT DELONG
797 CENTRAL AVE
WYANDOTTE MI 48192

DETROIT WASTEWATER TREATMENT PLANT
ATTN: KATHLEEN LEAVEY
735 RANDOLPH
DETROIT MI 48226

TRENTON WASTEWATER TREATMENT PLANT
ATTN: JOHN P. ARNOT
1801 VANHORN RD.
TRENTON MI 48183

ANN ARBOR WASTEWATER TREATMENT PLANT
ATTN: EARL J. KENZIE
49 SOUTH DIXBORO
ANN ARBOR MI 48105

BAY CITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2905 N. WATER STREET
BAY CITY MI 48708

BIG RAPIDS WASTEWATER TREATMENT PLANT
ATTN: BILL STEVENS
226 NORTH MICHIGAN AVENUE
BIG RAPIDS MI 49307

EAST LANSING WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1700 TROWBRIDGE
EAST LANSING MI 48823

FLINT WASTEWATER TREATMENT PLANT
ATTN: ROY A. ZIETZ
G-4652 BEECHER ROAD
FLINT MI 48532

GENESEE CO-RAGNONE WASTEWATER TREATMENT PLANT
ATTN: THOMAS F. TRAHEY
G-9290 FARRAND ROAD
MONTROSE MI 48457

GRANDVILLE WASTEWATER TREATMENT PLANT
ATTN: RICHARD W. MEYERS
4747 JENISON ROAD
GRANDVILLE MI 49418

JACKSON WASTEWATER TREATMENT PLANT
ATTN: JOHN C. ST. ANDRE
161 WEST MICHIGAN AVE
JACKSON MI 49202

KALAMAZOO WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1415 NORTH HARRISION STREET
KALAMAZOO MI 49007-4796

LANSING WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1625 SUNSET AVENUE
LANSING MI 48917

MIDLAND WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
333 W ELLSWORTH ST
P.O. BOX 1647
MIDLAND MI 48641-1647

MT. PLEASANT WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1303 N FRANKLIN ST
MT. PLEASANT MI 48858

PONTIAC WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
155 NORTH OPDYKE RD
PONTIAC MI 48342

WARREN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
29500 VAN KYKE AVE
WARREN MI 48093-6726

WIXOM WASTEWATER TREATMENT PLANT
ATTN: JAMES CARPENTER
2059 CHARMS ROAD
WIXOM MI 48393

WYOMING WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
3059 CHICAGO DRIVE SW
GRANDVILLE MI 49418

GRAND RAPIDS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
300 MONROE AVE. N.W.
GRAND RAPIDS MI 49503

MUSKEGON CO WWMS METRO WASTEWATER
TREATMENT PLANT
MUSKEGON COUNTY BUILDING
ATTN: PLANT MANAGER
100 TERRACE STREET
MUSKEGON MI 49442

YCUA REGIONAL WASTEWATER TREATMENT PLANT
ATTN: LARRY R. THOMAS
2777 STATE STREET
YPSILANTI MI 48198-9231

ELY PUBLIC UTILITIES
ATTN: TERRY C. JACKSON
209 E. CHAPMAN STREET
ELY MN 55731

GRAND RAPIDS PUBLIC UTILITY COMMISSION
ATTN: PLANT MANAGER
P.O. BOX 658
GRAND RAPIDS MN 55744

BEMIDJI WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
317 4TH ST NW
BEMIDJI MN 56601-3116

RED WING WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
CITY HALL
PO BOX 34
RED WING MN 55066

ROCHESTER WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
CITY HALL-ROOM 2
201 4TH STREET SE
ROCHESTER MN 55904-3740

MWCC/MC-METROPOLITAN
ATTN: BRYCE J. PICKART
230 E. 5TH STREET
MEARS PARK CENTRE
SAINT PAUL MN 55101

NEW ULM WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
100 N. BROADWAY
CITY HALL NEW ULM MN 56073

HIBBING WASTEWATER TREATMENT PLANT
ATTN: MICHAEL B. KEMPA
CITY HALL
401 EAST 21ST ST.
HIBBING MN 55746

WESTERN LAKE SSD
ATTN: OSEPH J. STEPUN
2626 COURTLAND ST.
DULUTH MN 55806-1894

GC/PASCAGOULA PUBLICLY OWNED TREATMENT WORKS
ATTN: PLANT MANAGER
3103 FREDERIC ST.
PASCAGOULA MS 39567

CORINTH WASTEWATER TREATMENT PLANT
ATTN: BILLY D. GLOVER
P.O. BOX 352
CORINTH MS 38834

VICKSBURG PUBLICLY OWNED TREATMENT WORKS
ATTN: PLANT MANAGER
P.O. BOX 150
VICKSBURG MS 39180

HC/GULFPORT PUBLICLY OWNED TREATMENT WORKS
ATTN: PLANT MANAGER
P.O. BOX 2409
GULFPORT MS 39501

BROOKHAVEN PUBLICLY OWNED TREATMENT WORKS
ATTN: DAVID E. KENNEDY
P.O. BOX 560
BROOKHAVEN MS 39601-0560

JACKSON PUBLICLY OWNED TREATMENT WORKS - SAVANNA STREET
DEPARTMENT OF PUBLIC WORKS
ATTN: PLANT MANAGER
P.O. BOX 17
JACKSON MS 39205-0017

PICAYUNE PUBLICLY OWNED TREATMENT WORKS
ATTN: PLANT MANAGER
203 GOODYEAR BLVD
PICAYUNE MS 39466

GC/WEST JACKSON COUNTY PUBLICLY OWNED
TREATMENT WORKS
SEAMAN ROAD
ATTN: PLANT MANAGER
OCEAN SPRINGS MS 39564

REPUBLIC WASTEWATER TREATMENT PLANT
ATTN: GRAIG LUSBY
213 N MAIN
REPUBLIC MO 65738

ST JOSEPH WASTEWATER TREATMENT PLANTS
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
ATTN: FOREST G. PARKER
3500 759 HIGHWAY
11TH & FREDERICK AVENUE
ST JOSEPH MO 64501

KANSAS CITY WASTEWATER TREATMENT PLANTS
WATER SERVICES DEPARTMENT
ATTN: TERRY MCQUERRY
414 E 12TH ST
KANSAS CITY MO 64106

LEMAY TREATMENT PLANT
ST. LOUIS METRO
ATTN: ROGER WIETING
201 HOFFMEISTER AVENUE
ST. LOUIS MO 63125

SPRINGFIELD WASTEWATER TREATMENT PLANTS
PUBLIC WORKS
ATTN: PLANT MANAGER
840 BOONVILLE
SPRINGFIELD MO 65806

CAPE GIRARDEAU
ATTN: DENNIS HALE
401 INDEPENDENCE ST.
CAPE GIRARDEAU MO 63701

ST. CHARLES PUBLICLY OWNED TREATMENT WORKS
ATTN: JOSEPH BUSCH
200 N 2ND ST
ST. CHARLES MO 63301

INDEPENDENCE
ROCK CREEK PUBLICLY OWNED TREATMENT WORKS
ATTN: DICK CHAMPION
JR.
P.O. BOX 1019 111 E. MAPLE
INDEPENDENCE MO 64051

JEFFERSON CITY PUBLICLY OWNED TREATMENT
WORKS
ATTN: ROBERT L. HOPKINS
320 E. MCCARTY ST.
JEFFERSON CITY MO 65101

COLUMBIA WASTEWATER TREATMENT PLANT
PUBLIC WORKS DEPARTMENT.
ATTN: TERRY L. HENNKENS
P.O. BOX N
701 E. BROADWAY
COLUMBIA MO 65205

JOPLIN
ATTN: TIM NYANDER
TURKEY CREEK WASTEWATER TREATMENT PLANT
PUBLIC WORKS CENTER
P.O. BOX 1355 1401 W. 2ND ST.
JOPLIN MO 64801

SULLIVAN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
210 WEST WASHINGTON
SULLIVAN MO 63080

CITY OF HAMILTON WASTEWATER TREATMENT PLANT
ATTN: DICK KITTEL
223 S. SECOND
HAMILTON MT 59840

CITY OF WHITEFISH WASTEWATER TREATMENT PLANT
ATTN: STEVE A. SMITH
P.O. BOX 158
WHITEFISH MT 59937

CITY OF GREAT FALLS WASTEWATER TREATMENT PLANT
ATTN: WAYNE ROBBINS
1600 6TH ST. NE
GREAT FALLS MT 59404

BUTTE-SILVER BOW WASTEWATER TREATMENT PLANT
ATTN: FREDERICK WENDT
800 CENTENNIAL AVENUE
BUTTE MT 59701

BILLINGS WASTEWATER TREATMENT PLANT
ATTN: DALE RONGHOLT
2251 BELKNAP AVE.
BILLINGS MT 59101

MISSOULA WASTEWATER TREATMENT PLANT
ATTN: STARR SULLIVAN
435 RYMAN
MISSOULA MT 59802

BOZEMAN WASTEWATER TREATMENT PLANT
ATTN: DON NOYES
2245 SPRINGHILL ROAD
BOZEMAN MT 59718

HELENA WASTEWATER TREATMENT PLANT
ATTN: MICHAEL J. GARRITY
1708 CUSTER AVENUE EAST
316 NORTH PARK AVE.
HELENA MT 59601

BURWELL WASTEWATER TREATMENT PLANT
ATTN: ROBERT D. BEAT
P.O. BOX 604
BURWELL NE 68823

TABLE ROCK WASTEWATER TREATMENT PLANT
ATTN: DAVID POPE
RR #1 BOX 26
TABLE ROCK NE 68447

OMAHA WASTEWATER TREATMENT PLANTS
ATTN: GEORGE SWAN
5600 S 10TH ST
OMAHA-DOUGLAS COUNTY CIVIC CTR
OMAHA NE 68107

LINCOLN WASTEWATER TREATMENT PLANTS
ATTN: GARY BRANDT
7000 N 70TH ST
LINCOLN NE 68507

CITY OF LAS VEGAS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
400 EAST STEWART AVENUE
LAS VEGAS NV 89101-2942

TRUCKEE MEADOWS WRF
ATTN: PLANT MANAGER
431 PRATER WAY
SPARKS NV 89431

CLARK COUNTY SANITATION DISTRICT AWT FAC.
ATTN: PLANT MANAGER
5857 EAST FLAMINGO ROAD
LAS VEGAS NV 89122-5598

DERRY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
TOWN HALL
48 EAST BROADWAY
DERRY NH 03038

HANOVER WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
P.O. BOX 483
HANOVER NH 03755

MERRIMACK WASTEWATER TREATMENT FACILITY
ATTN: LARRY R. SPENCER
P.O. BOX 235
36 MAST ROAD
MERRIMACK NH 03054-0235

PORTSMOUTH-PIERCE ISLAND WASTEWATER TREATMENT PLANT
ATTN: SUSAN DIAZ
DEPT. OF PUBLIC WORKS
PORTSMOUTH NH 03801

MANCHESTER WASTEWATER TREATMENT PLANT
ATTN: THOMAS COREY
300 WINSTON STREET
MANCHESTER NH 03103-6826

DURHAM WASTEWATER TREATMENT FACILITY
DEPT. OF PUBLIC WORKS
ATTN: PLANT MANAGER
13-15 NEWMARKET ROAD
DURHAM NH 03824-2898

MILFORD WASTEWATER TREATMENT FACILITY
ATTN: MARIO LECLERC
1 UNION SQUARE
MILFORD NH 03055

NEWINGTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
SEWER COMMISSION
NEWINGTON NH 03801

SEABROOK WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
P.O. BOX 456
SEABROOK NH 03874

BERGEN COUNTY UA WTPP
ATTN: JEROME F. SHEEHAN
MEHRHOF ROAD
BOX 122
LITTLE FERRY NJ 07643

MIDDLESEX COUNTY UA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX B-1
SAYREVILLE NJ 08872-0086

NEWTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
39 TRINITY STREET
NEWTON NJ 07860

CAPE MAY CITY MUA REG WTF
ATTN: DANIEL E. RIMANN
P.O. BOX 610
CAPE MAY CT HOUSE NJ 08210

TOWN OF CLINTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
43 LEIGH STREET
P.O. BOX 5194
CLINTON NJ 08809

LAMBERTVILLE SEWAGE AUTHORITY
ATTN: PLANT MANAGER
P.O. BOX 300
LAMBERTVILLE NJ 08530

PASSAIC VALLEY TREAT PLANT
ATTN: PLANT MANAGER
600 WILSON AVENUE
NEWARK NJ 07105

PENNSVILLE SEWERAGE AUTHORITY
ATTN: PLANT MANAGER
90 N. BROADWAY
PENNSVILLE NJ 08070

RARITAN TOWNSHIP SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 387
FLEMINGTON NJ 08822

ATLANTIC COUNTY UTILITIES AUTH
ATTN: PLANT MANAGER
1701 ABSECON BLVD
ATLANTIC CITY NJ 08401

VERONA WTP
ATTN: PLANT MANAGER
600 BLOOMFIELD AVENUE
VERONA NJ 07044

LIVINGSTON TWP SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
357 SOUTH LIVINGSTON AVENUE
LIVINGSTON NJ 07039

RAHWAY VALLEY SEWERAGE AUTH
ATTN: RICHARD P. TOKARSKI
1050 EAST HAZELWOOD AVENUE
RAHWAY NJ 07065

CUMBERLAND COUNTY UA WASTEWATER TREATMENT PLANT
ATTN: BLAKE G. MALONEY
333 WATER STREET
BRIDGETON NJ 08302

GLOUCESTER CO UTIL AUTH WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 340
THOROFARE NJ 08086

MONMOUTH CO BAYSHORE OUTFALL
ATTN: PLANT MANAGER
P.O. BOX 184
200 HARBOR WAY
BELFORD NJ 07718

BAYSHORE REGIONAL SA
ATTN: PLANT MANAGER
100 OAK STREET
UNION BEACH NJ 07735

JT. MEET TREATMENT PLANT
ATTN: JOSEPH BONACCORSO
500 S. FIRST STREET
ELIZABETH NJ 07202

NORTHWEST BERGEN COUNTY UA
ATTN: PLANT MANAGER
P.O. BOX 255
WALDWICK NJ 07463

SOMERSET RARITAN VALLEY SA
ATTN: JEANNE C. DECKER
P.O. BOX 6400
BRIDGEWATER NJ 08807-0400

LINDEN- ROSELLE SEWAGE AUTHORITY
ATTN: GARY O. FARE
P.O. BOX 4118
5005 SOUTH WOOD AVE.
LINDEN NJ 07036-8118

PARSIPPANY TROY HILLS WASTEWATER TREATMENT PLANT
ATTN: GEORGE R.YNKIEWICZ
1001 PARSIPPANY BLVD
PARSIPPANY NJ 07054

TOWN OF MORRISTOWN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
110 SOUTH STREET
MORRISTOWN NJ 07960

CAMDEN COUNTY M.U.A.
ATTN: PLANT MANAGER
1645 FERRY AVENUE
P.O. BOX 1432
CAMDEN NJ 081011432

HAMILTON TOWNSHIP WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
300 HOBSON AVENUE
TRENTON NJ 08610

STONY BROOK RSA
ATTN: THOMAS C. ANDERSON
290 RIVER ROAD
PRINCETON NJ 08540

LANDIS SEWERAGE AUTHORITY
ATTN: DENNIS W. PALMER
1776 SOUTH MILL RD.
VINELAND NJ 08360

CITY OF GALLUP WASTEWATER TREATMENT PLANT
ATTN: ALBERT N. JACKSON
P.O. BOX 1270
GALLUP NM 87301

CITY OF TUCUMCARI WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 1188
TUCUMCARI NM 88401

ALBUQUERQUE PUBLIC WORKS DEPARTMENT.
ATTN: MARK MILLER
4201 SECOND STREET S.W.
ALBUQUERQUE NM 87105

CITY OF SANTA FE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 909
SANTA FE NM 87501

CITY OF LAS CRUCES WWAATAP
ATTN: PLANT MANAGER
P.O. DRAWER CLC
LAS CRUCES NM 88004

SCHENECTADY WPCP
ATTN: PAUL J. LAFOND
300 ANTHONY STREET
SCHENECTADY NY 12308

AUBURN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
35 BRADLEY STREET
AUBURN NY 13021

ERIE COUNTY SD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
260 LEHIGH AVENUE
LACKAWANNA NY 14218

LITTLE FALLS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
RIVER ROAD EAST
LITTLE FALLS NY 13365

BINGHAMTON-JOHNSON CITY JNT BD
ATTN: PLANT MANAGER
OLD VESTAL ROAD
VESTAL NY 13850

WATERTOWN WPCP
ATTN: PLANT MANAGER
700 WM. T. FIELD DRIVE
WATERTOWN NY 13601

NYC BUREAU OF WW POLLUTION CONTROL
ATTN: ROBERT E. ADAMSKY
96-05 HORACE HARDING EXPRSSWAY
CORONA NY 11368

POUGHKEEPSIE WPCP
ATTN: PLANT MANAGER
206 NORTH WATER ST
POUGHKEEPSIE NY 12601

NORTH TONAWANDA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
830 RIVER ROAD
NORTH TONAWANDA NY 14120

NIAGARA FALLS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1200 BUFFALO AVE.
NIAGARA FALLS NY 14302

TONAWANDA SD#2 SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
750 TWO MILE CREEK ROAD
TONAWANDA NY 14150

NASSAU CO SD#1 - INWOOD SEWERAGE TREATMENT PLANT
ATTN: CONSTANTINE SPARACIO
1 WEST STREET
MINEOLA NY 11501

NCSD#2
BAY PARK SEWERAGE TREATMENT PLANT
ATTN: RICHARD COTUGNO
FOOT OF FOURTH AVE
EAST ROCKAWAY NY 11518

GLEN COVE WTP
ATTN: WILLIAM C. GRAF
100 MORRIS AVENUE
GLEN COVE NY 11542

ITHACA AREA WWT FACILITIES
ATTN: PLANT MANAGER
525 THIRD STREET
ITHACA NY 14850

YONKERS JOINT WASTEWATER TREATMENT PLANT
ATTN: THOMAS J. LAURO
FERNBROOK ST
LUDLOW DOCK SOUT
NEW ROCHELLE NY 10801

MAMARONECK SANITARY SD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
WEST BOSTON POST ROAD
MAMARONECK NY 10543

PORT WASHINGTON WPCP
ATTN: ROBERT W. VOGT
P.O. BOX 790
70 HARBOR ROAD
PORT WASHINGTON NY 11050

NCSD#3 CEDAR CREEK WPCP
ATTN: DAVID B. FLAUMENBAUM
P.O. BOX 88
WANTAGH NY 11793

ALBANY CO SD WASTEWATER TREATMENT PLANTS
ATTN: PETER R. ANDERSON
P.O. BOX 4187
ALBANY NY 12204

METROPOLITAN SYRACUSE SEWERAGE TREATMENT PLANT
ATTN: RANDY R. OTT
650 HIAWATHA BLVD
W. SYRACUSE NY 13204-1194

ENDICOTT WPCP
ATTN: EUGENE A. KUDGUS
1009 EAST MAIN STREET
ENDICOTT NY 13760

LEWISTON MASTER S.I.A. WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
501 PLETCHER ROAD
LEWISTON NY 14092

NIAGARA COUNTY SD#1 WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
7346 LIBERTY DRIVE
NIAGARA FALLS NY 14304

SARATOGA CO SD# 1 WASTEWATER TREATMENT PLANT
ATTN: DONALD J. RUDOLPH
ROUTE 4 & 32
MECHANICVILLE NY 12188

FRANK E VAN LARE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
700 PINEGROVE AVENUE
ROCHESTER NY 14617

BIRD ISLAND WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
FOOT OF WEST FERRY ST.
BUFFALO NY 14213-1799

GLENS FALLS WASTEWATER TREATMENT PLANT
ATTN: LAWRENCE J. GLASHEEN
2 SHERMANTOWN ROAD
GLENS FALLS NY 12801

OSWEGO SEWERAGE TREATMENT PLANTS
ATTN: PLANT MANGER
1ST & W. SCHUYLER ST.
OSWEGO NY 13126

ROME MUNICIPAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
7180 EAST DOMINICK STREET
ROME NY 13440

ERIE CO/SOUTHTOWNS SEW TRT FAC
ATTN: PLANT MANAGER
3690 LAKESHORE ROAD
BUFFALO NY 14219

PEEKSKILL SANITARY SD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
700 HIGHLAND AVENUE
PEEKSKILL NY 10566

SUFFOLK COUNTY SD#3-SOUTHWEST
ATTN: PLANT MANAGER
600 BERGEN AVENUE
WEST BABYLON NY 11704

OSSINING SANITARY SD WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
75 WESTERLY ROAD
OSSINING NY 10562

HICKORY NORTHEAST WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
76 NORTH CENTER ST.
P.O. BOX 398
HICKORY NC 28603

KINGS MOUNTAIN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 429
KINGS MOUNTAIN NC 28086

MT. HOLLY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
BOX 406
MOUNT HOLLY NC 28120

SPRUCE PINE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 189
SRUCE PINE NC 28777

DURHAM WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
101 CITY HALL PLAZA
DURHAM NC 27701

WILMINGTON WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 1810
WILMINGTON NC 28402

GREENSBORO WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 3136
GREENSBORO NC 27402

CITY OF SHELBY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 207
SHELBY NC 28150

CMUD WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
5100 BROOKSHIRE BOULEVARD
CHARLOTTE NC 28216

MASON FARM WTP
ATTN: WALTER R. GOTTSCHALK
P.O. BOX 366
CARRBORO NC 27510

CITY OF HENDERSONVILLE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P. O. BOX 1760
HENDERSONVILLE NC 28739

DURHAM CO TRIANGLE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
200 E. MAIN STREET
DURHAM NC 27701

TOWN OF HILLSBOROUGH WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 429
HILLSBOROUGH NC 27278

RALEIGH NEUSE RIVER WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 590
RALEIGH NC 27602

TAR RIVER WASTEWATER TREATMENT PLANT
ATTN: STANLEY CURTIS
P.O. BOX 1180
ROCKY MOUNT NC 27802

STATESVILLE FOURTH CREEK WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 1111
STATESVILLE NC 28677

WINSTON-SALEM WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O BOX 2511
WINSTON-SALEM NC 27102

TOWN OF CARY WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 1147
CARY NC 27513

FARGO WASTEWATER TREATMENT PLANT
ATTN: RAYMOND PETERSON
3400 NORTH BROADWAY
FARGO ND 58102

BISMARCK WASTEWATER TREATMENT PLANT
ATTN: KEITH DEMKE
P.O. BOX 5503
BISMARCK ND 58502-5503

CITY OF AKRON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
65 S. HIGH ST
2460 AKRON PENINSULA ROAD
AKRON OH 44313

CITY OF ALLIANCE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
12251 N ROCKHILL AVE
1010 N. WALNUT
ALLIANCE OH 44601

CITY OF ASHTABULA WASTEWATER TREATMENT PLAN
ATTN: PLANT MANAGER
SIXTH & WOODLAND AVE
303 WOODLAND AVE.
ASHTABULA OH 44004

CITY OF ATHENS WASTEWATER TREATMENT PLANT
SERVICE DIRECTORS OFFICE
ATTN: PLANT MANAGER
557 EAST STATE ST.
ATHENS OH 4570 1

CITY OF CANTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
3530 CENTRAL
CANTON OH 44702

NEORSD WASTEWATER TREATMENT PLANTS
ATTN: FRANK M. CUFFARO
3826 EUCLID AVE.
CLEVELAND OH 44115

CITY OF COLUMBUS WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANGER
DIV OF SEWAGE & DRAINAGE
910 DUBLIN RD.
COLUMBUS OH 43215

CITY OF DAYTON WASTEWATER TREATMENT PLANT
WATER DEPT.
ATTN: PLANT MANAGER
2800 GUTHRIE RD.
DAYTON OH 45418

CITY OF FREMONT WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1019 SAND ST
FREMONT OH 43420

CITY OF HAMILTON WASTEWATER TREATMENT PLANT
DEPT OF PUBLIC UTILITIES
ATTN: PLANT MANAGER
20 HIGH STREET
HAMILTON OH 45011

GREATER CINCINNATI MSD
ATTN: PLANT MANAGER
1600 GEST STREET
CINCINNATI OH 45204

CITY OF OXFORD WASTEWATER TREATMENT PLANT
UTILITIES DEPARTMENT
ATTN: PLANT MANAGER
MUNICIPAL BUILDING
OXFORD OH 45056

CITY OF PAINSVILLE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1170 NORTH STATE ST
PAINESVILLE OH 44077

CITY OF TOLEDO PUBLICLY OWNED TREATMENT WORKS
DIV OF WATER RECLAMATION
ATTN: PLANT MANAGER
BAY VIEW PARK 3900 N SUMMIT
TOLEDO OH 43611

CITY OF TROY WASTEWATER TREATMENT PLANT
UTILITIES DEPARTMENT
ATTN: PLANT MANAGER
1400 DYE MILL ROAD
TROY OH 45373

CITY OF WILLOUGHBY WASTEWATER TREATMENT PLANT
ATTN: SERVICE DIRECTOR
221 ERIE ROAD
WILLOUGHBY OH 44094

CITY OF WOOSTER WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
528 N. MARKET STREET
1123 COLUMBUS ROAD
WOOSTER OH 44691

CITY OF XENIA PUBLICLY OWNED TREATMENT WORKS
ATTN: PLANT MANAGER
101 NORTH DETROIT STREET
XENIA OH 45385

EUCLID WASTEWATER TREATMENT PLANT
ATTN: TOM VITOLO
22201 LAKESHORE BLVD
EUCLID OH 44123

MAHONING CO. BD. OF COMM.
SANITARY ENGINEERING DEPT.
ATTN: PLANT MANAGER
761 INDUSTRIAL ROAD
YOUNGSTOWN OH 44509

CITY OF PONCA WASTEWATER TREATMENT PLANT
WATER & LIGHT DEPT.
ATTN: PLANT MANAGER
P.O. BOX 1450
PONCA CITY OK 74601

TULSA METROPOLITAN UTILITY AUTHORITY
ATTN: PLANT MANAGER
200 CIVIC CENTER
ROOM #403
TULSA OK 74103

CITY OF STILLWATER
ATTN: PLANT MANAGER
P.O.BOX 1449
STILLWATER OK 74076

CITY OF HENRYETTA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 608
HENRYETTA OK 74437

CITY OF MUSKOGEE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
5006 N HANCOCK-P O BOX 1927
MUSKOGEE OK 74401

CITY OF NO WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O.BOX 370
NORMAN OK 73070

OKLAHOMA CITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
420 W. MAIN
SUITE 500
OKLAHOMA CITY OK 73102

CITY OF CORVALLIS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 1083
CORVALLIS OR 97339

COLUMBIA BLVD WASTEWATER TREATMENT PLANT
ATTN: ROSS W. PETERSON
5001 N. COLUMBIA BLVD
1120 SW 5TH AVE. ROOM 702
PORTLAND OR 97203-2098

UNIFIED SEWERAGE AGENCY
ATTN: PLANT MANAGER
155 NORTH FIRST AVENUE
SUITE 270
HILLSBORO OR 97124

CITY OF ALBANY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
300 VINE ST. SW
P.O. BOX 490
ALBANY OR 97321-0144

METRO WASTEWATER MANAGEMENT CO
ATTN: PLANT MANAGER
225 N. 5TH ST.
SUITE 292
SPRINGFIELD OR 97477

GRESHAM WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1333 NW EASTMAN PARKWAY
GRESHAM OR 97030

PENN RIDGE WASTEWATER TREATMENT AUTHORITY
ATTN: KEVIN FRANKS
180 MAPLE AVENUE BOX 31
SELLERSVILLE PA 18960-0031

BEAVER BORO MUN AUTH
ATTN: PLANT MANAGER
469 THIRD STREET
BEAVER PA 15009

CHALFONT-NEW BRITAIN TWP JOINT
ATTN: PLANT MANAGER
1645 UPPER STATE ROAD
DOYLESTOWN PA 18901

UPPER MORELAND-HATBORO JNT SEW
ATTN: DONALD F. ARMSTRONG
P.O. BOX 535
WILLOW GROVE PA 19090-0535

ALCOSAN WASTEWATER TREATMENT PLANT
ATTN: MICHAEL A. FLAMANG
3300 PREBLE AVENUE
PITTSBURGH PA 15233

ALLENTOWN CITY AUTHORITY-WASTE
ATTN: JOSEPH M. MCMAHON III
WASTEWATER TREATMENT PLANT
112 UNION STREET
ALLENTOWN PA 18102

NEW BRIGHTON BORO SAN AUTH
ATTN: PLANT MANAGER
610 THIRD AVENUE
NEW BRIGHTON PA 15066

CITY OF JOHNSTOWN WASTEWATER TREATMENT PLANT
BUREAU OF SEWAGE
ATTN: PLANT MANAGER
414 WASHINGTON STREET
JOHNSTOWN PA 15901

BETHLEHEM CITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
144 SHIMERSVILLE ROAD
BETHLEHM PA 18018

CHAMBERSBURG J. HASE MOWREY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
100 SOUTH 2ND STREET
FRANKLIN COUNTY PA 17201

CARLISLE BORO WASTEWATER TREATMENT PLANT
ATTN: FREDRICK BEAN
MANAGER
54 N. MIDDLESEX ROAD
MIDDLESEX TOWNSHIP PA 17013

WYOMING VALLEY SAN AUTH
ATTN: ROBERT BETZLER
EXEC. DIR
P.O. BOX 33A
WILKES BARRE PA 18703-1333

ROCHESTER AREA JOINT SEWER AUT
ATTN: PLANT MANAGER
300 WEST PARK STREET
ROCHESTER PA 15074

WARMINSTER TWP. MUN. AUTH.
ATTN: PLANT MANAGER
415 GIBSON AVE
WARMINSTER PA 18974

LANSDALE BORO WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
652 NINTH ST.
LANSDALE PA 19446

UNIVERSITY AREA JT AUTH
ATTN: PLANT MANAGER
1576 SPRING VALLEY ROAD
STATE COLLEGE PA 16801

HATFIELD TWP MUN AUTH
ATTN: PLANT MANAGER
3200 ADVANCE LANE
COLMAR PA 18915

YORK CITY SEW AUTH
ATTN: RICK SECHRIST
1701 BLACKBRIDGE ROAD
YORK COUNTY PA 17402

MEADVILLE CITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
984 WATER STREET
MEADVILLE PA 16335

ERIE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
68 PORT ACCESS ROAD
ERIE PA 16507-2202

LOWER LACKAWANNA VALLEY WASTEWATER
TREATMENT PLANT
ATTN: THOMAS MCDERMOTT
P.O. BOX 67
COXTON ROAD
DURYEA PA 18642-9990

SCRANTON CITY SEW AUTHORITY
ATTN: GERALD J. CONNOLLY
307 NORTH WASHINGTON AVE
SCRANTON PA 18503

DOWNINGTOWN REGIONAL WPCC
ATTN: PLANT MANAGER
P.O. BOX 8
550 S. BRANDYWINE AVE.
EXTON PA 19341

AMBLER BORO WASTEWATER TREATMENT PLANT
ATTN: BRUCE JONES
122 EAST BUTLER AVENUE
AMBLER PA 19002-4476

NEW CUMBERLAND BORO WASTEWATER TREATMENT
PLANT
ATTN: PLANT MANAGER
1120 MARKET ST.
P.O. BOX 220
CUMBERLAND COUNTY PA 17070

PHILADELPHIA CITY WATER DEPT.
ATTN: WILLIAM E. TOFFEY
4TH FLOOR
ARAMARK TOWER 1101 MARKET STREET
PHILADELPHIA PA 19107

MORRISVILLE BORO MUN AUTH-SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
35 UNION STREET
MORRISVILLE PA 19067

TYRONE BORO WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
BOROUGH BLDG.
BLAIR COUNTY PA 16686

ABINGTON TWP WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1176 OLD YORK RD
ABINGTON PA 19001

CITY OF BEAVER FALLS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
715 15TH STREET
BEAVER FALLS PA 15010

GREATER HAZELTON JNT SEW AUTH
ATTN: MIKE KELCHAK
BOX 651 VALMONT IND. PARK
HAZELTON PA 18201

LACKAWANNA RIVER BASIN SEWER AUTH.
ATTN: PLANT MANAGER
MAIN STREET
DICKSON CITY PA 18519

AMBRIDGE BORO MUN AUTH. WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
MUNICIPAL BUILDING
1001 MERCHANT STREET
AMBRIDGE PA 15003

BLOOMSBURG TWP MUN AUTH. WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
551 FORT MCCLURE BLVD
BLOOMSBURG PA 17815

HARRISBURG AUTHORITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
ONE KEYSTONE PLAZA
SUITE 104 FRONT AND MARKET STREET
HARRISBURG PA 17101

UPPER ALLEGHENY JOINT SAN AUTH
ATTN: MR. ROBERT SZIMMS
320 4TH AVENUE
TARENTUM PA 15084

NORRISTOWN MUN WASTE AUTH
ATTN: PLANT MANAGER
235 EAST AIRY STREET
NORRISTOWN PA 19401

KISKI VALLEY WPCA
ATTN: SANDRA DUCKWORTH
1200 PINE CAMP RD.
LEECHBUG PA 15656

CLARION AREA AUTHORITY WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
14 N. 5TH AVENUE
CLARION PA 16214

UPPER GWYNEDD-TOWAMENCIN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2225 KRIEBEL ROAD
LANSDALE PA 19446

SPRING TWP MUN AUTH. WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
2800 SHILLINGTON RD
READING PA 19608

HORSHAM TWP SEW AUTH
ATTN: PLANT MANAGER
617B HORSHAM ROAD
HORSHAM TOWNSHIP PA 19044

CRANSTON WASTEWATER TREATMENT FACILITY
ATTN: DONALD J. BENZ
869 PARK AVE
CRANSTON RI 02910

EAST GREENWICH WASTEWATER TREATMENT FACILITY
ATTN: PACILLO MICHAEL D.
P. O. BOX 111
EAST GREENWICH RI 02818

EAST PROVIDENCE WASTEWATER TREATMENT FACILITY
ATTN: THOMAS A. WHITE
1 CREST AVE
EAST PROVIDENCE RI 02915

NETCO
ATTN: JOHN FAILE
15 CUMBERLAND HILL RD
WOONSOCKET RI 02895

NEW SHOREHAM WASTEWATER TREATMENT FACILITY
ATTN: MARK J. JOHNSON
P.O. BOX 774
NEW SHOREHAM RI 02807

FIELDS POINT WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
235 PROMENADE ST
PROVIDENCE RI 02908

JAMESTOWN WASTEWATER TREATMENT PLANT
ATTN: STEVEN O. GOSLEE
JAMESTOWN TOWN HALL
P.O. BOX 377
JAMESTOWN RI 02835

COLUMBIA/METRO PLANT
ATTN: PLANT MANAGER
P.O. BOX 147
COLUMBIA SC 29217

TOSCH CREEK WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 987
UNION SC 29379

CHARLESTON WASTEWATER TREATMENT PLANTS
ATTN: ANDREW W. FAIREY
103 PHILIP ST.
P O DRAWER B
CHARLESTON SC 29402

WCRSA WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
561 MAULDIN ROAD
GREENVILLE SC 29607

NCSD/FELIX C DAVIS WASTEWATER TREATMENT PLANT
ATTN: RAYMOND PETERSON
P.O. BOX 63009
N. CHARLESTON SC 29419-3009

JOHNSONVILLE/EAST PLANT
ATTN: PLANT MANAGER
P.O. BOX 428
108 SEABOARD AVE
JOHNSONVILLE SC 29555

BLACKVILL WASTEWATER TREATMENT PLANT
ATTN: H. DON LEWIS
P.O. BOX 910
ORANGEBURG SC 29116

FLORENCE SEWERAGE TREATMENT PLANT #1
ATTN: ROBBIE MOTT
DRAWER RR CITY-CNTY COMPLEX
FLORENCE SC 29501-3456

VERMILLION WASTEWATER TREATMENT PLANT
ATTN: PAUL BRUNICK
25 CENTER STREET
VERMILLION SD 57069

PIERRE WASTEWATER TREATMENT PLANT
ATTN: GREG MOHR
1100 S. BUCHANAN
PIERRE SD 57501

ABERDEEN WASTEWATER TREATMENT PLANT
ATTN: PETER HESLA
123 S. LINCOLN
ABERDEEN SD 57401

SIOUX FALLS WATER RECLAMATION
ATTN: GREGORY STACK
4500 NORTH SYCAMORE AVE.
SIOUX FALLS SD 57104

BROOKINGS WASTEWATER TREATMENT FACILITY
ATTN: JOHN WIRTZ
525 WESTERN AVE
BROOKINGS SD 57006-0588

RAPID CITY WASTEWATER TREATMENT PLANT
ATTN: DAVE VAN CLEAVE
300 6TH STREET
RAPID CITY SD 57701

CITY OF BOXELDER
ATTN: PLANT MANAGER
P.O. BOX 606
BOXELDER SD 57719

MARYVILLE SEWERAGE TREATMENT PLANT
ATTN: MIKE T. STINNETT
332 HOME AVENUE
MARYVILLE TN 37801

NASHVILLE-CENTRAL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
1600 2ND AVE. N.
NASHVILLE TN 37208-2206

NASHVILLE-DRY CREEK SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
61 EDENWOLD ROAD
MADISON TN 37115

MEMPHIS E. MAXON WASTEWATER TREATMENT PLANT
ATTN: PETER M. ALFONSO
2303 N. SECOND ST.
MEMPHIS TN 38127-7500

MILLINGTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 247
MILLINGTON TN 38053

SIGNAL MOUNTAIN SEWERAGE TREATMENT PLANT
ATTN: HERSHEL E. DICK
1100 RIDGEWAY AVENUE/CITY HALL
SIGNAL MOUNTAIN TN 37377

KNOXVILLE SEWERAGE TREATMENT PLANTS
KNOXVILLE UTILITY BOARD
ATTN: PLANT MANAGER
KNOXVILLE TN 37916

MURFREESBORO-SINKING CR SEWERAGE TREATMENT PLANT
ATTN: WILLIAM W. LOVE
2032 BLANTON DR.
MURFREESBORO TN 37129

ERWIN WASTEWATER TREATMENT PLANT
ATTN: SCOTTY STREET
244 LOVE STREET
P.O. BOX 201
ERWIN TN 37650

BRISTOL SEWERAGE TREATMENT PLANT #2
ATTN: PLANT MANAGER
578 BEAVER CREEK ROAD
PROFESSIONAL SERVICES GROUP
BLUFF CITY TN 37618-9428

CITY OF OAK RIDGE POTS
ATTN : JACK ROBINSON
P.O. BOX 1
300 S. MAIN
OAK RIDGE TN 37831-0001

CHATTANOOGA-MOCCASIN BEND WASTEWATER TREATMENT PLANT
ATTN: JERRY STEWART
455 MOCCASIN BEND ROAD
CHATTANOOGA TN 37405

JOHNSON CITY WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
601 EAST MAIN STREET
JOHNSON CITY TN 37601

MILAN SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 109
MILAN TN 38358

BACLIFF MUNICIPAL UTILITY DIST
ATTN: PLANT MANAGER
4303 12TH ST.
DRAWER 8717
BACLIFF TX 77518

TRA (TEN MILE CREEK) WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P O BOX 240
ARLINGTON TX 73010

GALVESTON COUNTY WCID #1-SOUTH
ATTN: PLANT MANAGER
P.O. BOX 307
DICKINSON TX 77539

GALVESTON COUNTY WCID #8
ATTN: PLANT MANAGER
P.O. BOX 337
SANTA FE TX 77510

CITY OF LA MARQUE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
1111 BAYOU
LA MARQUE TX 77568

NORTH SEWERAGE TREATMENT PLANT
ATTN: JERRY R. FUSSELL
105 SOUTH 3RD ST.
SILSBEE TX 77656

TEXAS CITY SEWERAGE TREATMENT PLANT #0001
ATTN: PLANT MANAGER
P.O. BOX 2608
TEXAS CITY TX 77592-2608

ABILENE SEWERAGE TREATMENT PLANT
ATTN: W.D. HARGESHEIMER
P.O. BOX 60
ABILENE TX 79604

CITY OF LAKE JACKSON
ATTN: PLANT MANAGER
25 OAK DRIVE
LAKE JACKSON TX 77566

WACO REGIONAL SEWERAGE TREATMENT PLANT
ATTN: NORBERT A. GOEDEKE
P.O. BOX 7555
WACO TX 76714-7555

HASKELL ST. SEWERAGE TREATMENT PLANT
ATTN: ENRIQUE WOO
P.O. BOX 511
EL PASO TX 79961-0001

CENTRAL SEWERAGE TREATMENT PLANT
ATTN: BARRY A. WRIGHT
128 EAST FOURTH STREET
FREEPORT TX 77541

SOUTH SEWERAGE TREATMENT PLANT
ATTN: JAMES P. BAKER
P.O. BOX 1627
HUMBLE TX 77338

CLUTE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
104 EAST MAIN ST
P.O. BOX 997
CLUTE TX 77531

BAY CITY SEWERAGE TREATMENT PLANT
ATTN: JOHN A. MARTINEZ
1901 FIFTH ST.
BAY CITY TX 77414

CITY OF HOUSTON SEWERAGE TREATMENT PLANTS
ATTN: RUDOLPH S. SARICH
4545 GROVEWAY
HOUSTON TX 77087 -1122

QUAIL VALLEY UD
ATTN: PLANT MANAGER
3134 CARTWRIGHT ROAD
MISSOURI CITY TX 77459-2599

CITY OF AUSTIN WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P.O. BOX 1088
AUSTIN TX 78767

SAN FELIPE SEWERAGE TREATMENT PLANT
ATTN: GILBERT L. SANCHEZ
P.O. BOX 4239
DEL RIO TX 78841

CITY OF GALVESTON WASTEWATER TREATMENT PLANTS
ATTN: PLANT MANAGER
P. O. BOX 779
GALVESTON TX 77553-0779

CITY OF PORT ARTHUR
MAIN TREATMENT PLT
ATTN: PLANT MANAGER
P.O. BOX 1089
PORT ARTHUR TX 77640

CITY OF TYLER SEWERAGE TREATMENT PLANTS
ATTN: GREGORY M. MORGAN
P.O. BOX 2039
TYLER TX 75710

CITY OF HITCHCOCK WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
7423 HIGHWAY 6
HITCHCOCK TX 77563

NAVASOTA SEWERAGE TREATMENT PLANT
ATTN: GARY E. JOHNSON
P.O. BOX 910
NAVASOTA TX 77868

PROVO CITY CORPORATION
ATTN: MARK OGREN
P.O. BOX 1849
PROVO UT 84603

VILLAGE CREEK SEWERAGE TREATMENT PLANT
ATTN: ROBERT T. MCMILLON
1000 THROCKMORTON
PO BOX 870
FT. WORTH TX 76101

WELLS CREEK SEWERAGE TREATMENT PLANT
ATTN: ROBERT H. FOLLETT
504 N QUEEN ST.
PALESTINE TX 75801

CITY OF DALLAS WASTEWATER TREATMENT PLANTS
ATTN: RUSSELL M. TIDWELL
1500 MARILLA STREET
4 AN
DALLAS TX 75201-6318

WOODLANDS WASTEWATER TREATMENT PLANT #1
ATTN: PLANT MANAGER
2436 SAWDUST ROAD
THE WOODLANDS TX 77380

GCWDA BLACKHAWK REGIONAL WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
910 BAY AREA BLVD.
HOUSTON TX 77058-2604

TRINITY RIVER AUTHORITY-REDOAK
ATTN: PLANT MANAGER
P.O. BOX 538
RED OAK TX 75154

SLC WATER RECLAMATION PLANT
ATTN: JON ADAMS
1365 WEST 2300 NORTH
SALT LAKE CITY UT 84116

NORTH DAVIS COUNTY SEWER DIST.
ATTN: CHARLIE METZLER
P.O. BOX 704
4252 WEST 2200 SOUTH
LAYTON UT 84041

CENTRAL WEBER SEWER IMP DIST.
ATTN: GORDON CHAMPNEYS
2618 WEST PIONEER ROAD
OGDEN UT 84404

LOGAN CITY CORPORATION
ATTN: PLANT MANAGER
P.O. BOX 527
255 NORTH MAIN STREET
LOGAN UT 84321

SOUTH VALLEY WATER REC FACILITY
ATTN: JOHN HAYS
P.O. BOX 667
WEST JORDAN UT 84084

CENTRAL VALLEY WATER REC FAC
ATTN: GORDAN BEALS
800 W CENTRAL VALLEY RD.
SALT LAKE CITY UT 84119-3379

BURLINGTON MAIN SEWERAGE TREATMENT PLANT
ATTN: STEVE ROY
34 KILBURN STREET
BURLINGTON VT 05402

MONTPELIER WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
CITY HALL
PUBLIC WORKS
MONTPELIER VT 05602

NEWPORT MTP
ATTN: ROGER F. BARAW
CITY OF NEWPORT TOWN HALL
74 MAIN STREET - P.O. BOX 405
NEWPORT VT 05855

SOUTH BURLINGTON AIRPORT PKWY
ATTN: PLANT MANAGER
CITY OF SOUTH BURLINGTON
575 DORSET STREET
SOUTH BURLINGTON VT 05403

WINOOSKI WATER POLLUTION CONTROL FACILITY
ATTN: PLANT MANAGER
27 WEST ALLEN STREET
WINOOSKI VT 05404

TAFTSVILLE WASTEWATER TREATMENT FACILITY
ATTN: RUSSELL EASTMAN
P.O. BOX 488
WOODSTOCK VT 05091

RUTLAND WASTEWATER TREATMENT FACILITY
ATTN: G. LEWIS HOTALING
P.O. BOX 969
RUTLAND VT 05702

HARTFORD WASTEWATER TREATMENT FACILITY
ATTN: LARRY ROGERS
15 BRIDGE ST.
WHITE RIVER JCT VT 05001

LYNCHBURG SEWERAGE TREATMENT PLANT
ATTN: WALTER R. YOUNGER
901 CHURCH ST
LYNCHBURG VA 24505

UPPER OCCOQUAN REGIONAL SEWERAGE TREATMENT PLANT
ATTN: MILLARD ROBBINS
P.O. BOX 918
CENTREVILLE VA 22020

ROANOKE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
1402 BENNINGTON ST SE
ROANOKE VA 24014

MOONEY SEWERAGE TREATMENT PLANT
ATTN: MR RAYMOND SPITTLE
4 PRINCE WILLIAM COMPLEX
PRINCE WILLIAM VA 22192

FREDERICKSBURG SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 7447
FREDERICKSBURG VA 22494

ARLINGTON SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
3401 S GLEBE RD
ARLINGTON VA 22204

MT. SIDNEY FT DEFIANCE SEWERAGE TREATMENT PLANT
ATTN: GEORGE J. GROSS
P.O. BOX 2448
STAUNTON VA 24401

LOWER POTOMAC SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
9399 RIGHMOND HIGHWAY
LORTON VA 22079

NORTHSIDE/SOUTHSIDE SEWERAGE TREATMENT PLANT
ATTN: BOBBY E. BENTLEY
MUNICIPLE BUILDING
DANVILLE VA 24541

HARRISONBURG-ROCKINGHAM SEWER
ATTN: PLANT MANAGER
P.O. BOX 8
MOUNT CRAWFORD VA 22841

BLACKBURG-VPI SANITATION AUTH.
ATTN: MR. W. BANE ATKINSON
P.O. BOX 52
BLACKSBURG VA 24063

CITY OF RICHMOND WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 26505
RICHMOND VA 23219

CITY OF HOPEWELL SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 969
HOPEWELL VA 23860

HRSD
ATTN: MR. R.W. LAWRENCE
P.O. BOX 5911
VA BEACH VA 23471

CITY OF RICHLAND WASTEWATER TREATMENT FACILITY
ATTN: WILLIAM HARLAN
555 LACEY ROAD
BOX 190
RICHLAND WA 99352-0190

CITY OF BELLINGHAM WASTEWATER TREATMENT PLANT
ATTN: WILLIAM MC COURT
2221 PACIFIC ST
BELLINGHAM WA 98226-5898

LYNNWOOD WASTEWATER TREATMENT FACILITY
ATTN: PLANT MANAGER
P.O. BOX 5008
LYNNWOOD WA 98046-5008

CITY OF EDMONDS WASTEWATER TREATMENT PLANT
ATTN: STEPHEN KOHO
200 W 2ND AVE SOUTH
EDMONDS WA 98020

CITY OF ELLENSBURG WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
420 N. PEARL ST.
ELLENSBURG WA 98926

VANCOUVER WESTSIDE SEWERAGE TREATMENT PLANT
ATTN: BOEOWEN BOE
210 EAST 13TH STREET
VANCOUVER WA 98668

CITY OF VANCOUVER(MARINE PK)
ATTN: PAUL PROCTOR
4650 SOUTHEAST COLUMBIA WAY
VANCOUVER WA 98661

SPOKANE ADVANCED WASTEWATER TREATMENT PLANT
ATTN: TIM PELTON
W. 808 SPOKANE FALLS BLVD
SPOKANE WA 99201-3343

KING COUNTY METRO
ATTN: PETER MACHNO
821 2ND AVENUE
SEATTLE WA 98104

ABERDEEN/COSMOPOLIS WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
200 EAST MARKET STREET
ABERDEEN WA 98520

CITY OF PRINCETON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 730
PRINCETON WV 24740

CITY OF MORGANTOWN WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 852
MORGANTOWN WV 26507-0852

CITY OF HUNTINGTON WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 1659
HUNTINGTON WV 25704

CITY OF CHARLESTON WASTEWATER TREATMENT PLANT
SANITARY BOARD
ATTN: PLANT MANAGER
P.O. BOX 1026
CHARLESTON WV 25324

CITY OF WHEELING FAC
ATTN: ALBERT CAMPBELL
P.O. BOX 6348 26TH & MAIN ST.
WHEELING WV 26003-0804

CLARKSBURG SANITARY BOARD
ATTN: PLANT MANAGER
227 WEST PIKE ST.
MUNICIPAL BUILDING.
CLARKSBURG WV 26301-4254

VILLAGE OF SUSSEX WASTEWATER TREATMENT PLANT
ATTN: JAMES THALKE
N59W2362 SILVER SPRING DR
SUSSEX WI 53089

GREEN BAY METRO SEWERAGE DIST.
ATTN: WILLARD DEBAUCHE
P.O. BOX 19015
GREEN BAY WI 54307-9015

CITY OF MARSHFIELD WASTEWATER TREATMENT PLANT
ATTN: DAVID C. PATEK
P.O. BOX 727
MARSHFIELD WI 54449-0727

CITY OF ANTIGO WASTEWATER TREATMENT PLANT
ATTN: MILES STANKE
CITY HALL 700 EDISON ST
ANTIGO WI 54409-1955

CITY OF WAUPUN WASTEWATER TREATMENT PLANT
ATTN: DENNIS WESTHUIS
220 N FOREST ST
WAUPUN WI 53963

CITY OF APPLETON WASTEWATER TREATMENT PLANT
ATTN: RICHARD T DE BROUX
200 N APPLETON
APPLETON. WI 54915

incorrect – old address

CITY OF BEAVER DAM WASTEWATER TREATMENT PLANT
ATTN: ROBERT KACHELSKI
205 S LINCOLN AVENUE
BEAVER DAM WI 53916

BROOKFIELD FOX WATER POLLUTION
ATTN: RON EIFLER
2000 NORTH CALHOUN RD
BROOKFIELD WI 53005

CITY OF DE PERE WASTEWATER TREATMENT PLANT
ATTN: NANCY NUSBAUM
335 S BROADWAY
DE PERE WI 54115

CITY OF FOND DU LAC WASTEWATER TREATMENT PLANT
ATTN: JACK HOWLEY
P.O. BOX 150
FOND DU LAC WI 54936

MADISON METRO SEWERAGE AUTH.
ATTN: JAMES NEMKE
1610 MOORLAND ROAD
MADISON WI 53713

CITY OF MENOMONIE WASTEWATER TREATMENT PLANT
ATTN: ANITA K. KLAMM
CITY HALL
800 WILSON ST.
MENOMONIE WI 54751

MILWAUKEE METROPOLITAN SEWER DISTRICT
WASTEWATER TREATMENT PLANT
ATTN: FRANK MUNSEY
JONES ISLAND
700 E.JONES
MILWAUKEE WI 53207

CITY OF OSHKOSH WASTEWATER TREATMENT PLANT
ATTN: ROBERT JUNGWIRTH
BOX 1130
215 CHURCH AVE.
OSHKOSH WI 54902

CITY OF KENOSHA WASTEWATER TREATMENT PLANT
ATTN: FRED NELSON
812 56TH STREET
KENOSHA WI 53140

WAUKESHA SEWERAGE TREATMENT PLANT
ATTN: PETE J. PRONOLD
CITY HALL
201 DELAFIELD
WAUKESHA WI 53186

CITY OF JANESVILLE WASTEWATER TREATMENT PLANT
ATTN: ROBERT BOLDT
123 E. DELAVAN DR.
JANESVILLE WI 53546

CITY OF LAKE MILLS WASTEWATER TREATMENT PLANT
ATTN: AL LEU
103 CHURCH STREET
LAKE MILLS WI 53551

WI DELLS LAKE DELTON SEW COMM
ATTN: KAY MACKESEY
P.O. BOX 87
LAKE DELTON WI 53940

WALWORTH COUNTY METRO
ATTN: JOSEPH CANNESTRA
975 W. WALWORTH AVE
DELAVAN WI 53115

RIVERTON WASTEWATER TREATMENT PLANT
ATTN: MIKE BELLAH
816 NORTH FEDERAL BLVD.
RIVERTON WY 82501

RIVERTON WASTEWATER TREATMENT PLANT
ASPER BD OF PUBLIC UTILITIES
ATTN: WALTER LEE GAINES
200 NORTH DAVID
CASPER WY 82601

CITY OF LARAMIE WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX C
LARAMIE WY 82070

ROCK SPRINGS WASTEWATER TREATMENT PLANT
ATTN: MIKE GAVIOTIS
212 D STREET
ROCK SPRINGS WY 82901

PRASA PUERTO NUEVO
ATTN: VICTOR ANDUJAR
P.O. BOX 7066
BARRIO OBRERO STATION SAN JUAN PR 00916-9990

PRASA PONCE SEWERAGE TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 7066
BARRIO OBRERO STATION SANTURCE PR 00916

PRASA CAROLINA WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 7066
BARRIO OBRERO STATION SANTURCE PR 00916

PRASA MAYAGUEZ WASTEWATER TREATMENT PLANT
ATTN: PLANT MANAGER
P.O. BOX 7066
BARRIO OBRERO STATION SANTURCE PR 00916