REGION 8 STRATEGY FOR THE CONTROL OF WASTE HAULED TO PUBLICLY OWNED TREATMENT WORKS

November 2001

U.S. Environmental Protection Agency
Region 8
Industrial Pretreatment Program (8P-W-P)
Suite 300
999 18th Street
Denver, Colorado 80202

TABLE OF CONTENTS

INTRODUCTION 1

Background 1
Statement of Requirements 2
General Approach 3

1. IDENTIFYING WASTE HAULER INFORMATION AND EDUCATION 4

1.1 Collect Waste Hauler Information 4
1.2 Collect Information on Businesses that Contract With Waste Haulers 6
1.3 Training and Communication with Waste Haulers 8
1.4 Communication with Businesses that have Wastes Picked-Up 9
1.5 Communication with Other City Agencies 9
1.6 Communication with the General Public 9
1.7 Communication with Other POTWs 10

2. DEVELOPING THE LEGAL AUTHORITY 11

2.1 Waste Tracking/Manifest System 11
2.2 Legal Authority 12
2.3 Provisions Necessary for Controlling Waste Haulers 12
2.4 Permitting 13

3. DEVELOPING PROCEDURES 16

3.1 Controlled Designated Disposal Site 16
3.2 Access, Hours of Operation 18
3.3 POTW Compliance Monitoring Program 18
3.4 Sampling Frequency for Compliance Monitoring 19
3.5 Sampling Frequency for Self Monitoring 20
3.6 Sample Types 21

4. WASTE TYPES AND CHARACTERIZATION 22

4.1 Wastes that POTWs May Expect 24
4.2 General Waste Characterization 29

5. IMPLEMENTING HAULED WASTE PROGRAM 33

5.1 Local Limits 33
5.2 Identification of Illegal Dischargers 33
5.3 Review and update Controls 34
5.4 Requirements for Waste Haulers Disposing of Domestic-Only Waste by Land Application 35

APPENDICES

Appendix A Definition of Terms
Appendix B Example Initial Survey for Businesses that Pick-up, Transport and Dispose of Trucked and Hauled Wastes
Appendix C Model Hauled Waste Ordinance/Rules
Appendix D Model Hauled Waste Permit
Appendix E Model Manifest
Appendix F State and Federal Pretreatment Program Approval Authorities/Control Authorities
Appendix G State and Federal Biosolids Contacts
Appendix H Response to Comments Received

DISCLAIMER

The mention of trade names, commercial products, or organizations does not imply endorsement by the U.S. Government. The statements in this document are intended to provide technical support on the development of a POTW hauled waste program to protect the POTW and implement provisions of the Clean Water Act, 40 CFR Part 403, and the POTW=s NPDES permit. This document is not intended, nor can it be relied on, to create any rights enforceable by any party in litigation with the United States. This document may be revised without public notice to reflect changes in EPA=s policy.

EPA wishes to thank the POTWs in Region 8 for their review and input in the creation of this document. In addition, the members of the Hauled Waste Workgroup provided significant time to provide written information, review and comments that are the basis for this Strategy.

INTRODUCTION

Background

Publicly Owned Treatment Works (POTWs) may receive wastewater from a variety of domestic (household) and non-domestic sources [commercial businesses (restaurants, laundries, dry cleaners, car washes, etc), and industries]. Smaller POTWs may receive mostly domestic and commercial wastewater, while larger POTWs generally receive a more complex mixture of wastewater from all sources of indirect discharge. These indirect wastewater sources are connected to the sewer system and discharge to the treatment plant through a system of pipes and interceptors. However, wastes can also be transported to any POTW by waste haulers. Hauled waste may include domestic septage, chemical toilet waste, grease interceptor waste, sand trap waste, non-hazardous commercial and industrial (categorical and non-categorical) waste, hazardous waste, ground water remediation site waste, and landfill leachate.

Because pollutants are usually more concentrated in hauled waste than in typical domestic wastewater, and because discharges of hauled waste are typically made as a slug discharge and may be of a waste type that the POTW does not receive on a daily basis, hauled waste can cause adverse impacts at treatment plants. These adverse impacts can include Pass Through to the receiving water, Interference with treatment plant processes and operations, sludge contamination, and create hazards to POTW personnel. To help prevent hauled wastes from causing problems, POTWs need to adequately control the discharge of hauled waste.

POTWs that meet the criteria outlined in 40 CFR Section 403.8(a) are required to develop and implement an approved pretreatment program. These POTWs with approved pretreatment programs have, for the most part, evaluated whether to accept hauled waste and how to control the waste haulers. All POTWs must prohibit the discharge to the sewer system of any wastes that would violate any of the General and Specific prohibitions specified at 40 CFR Section 403.5. In addition, under 40 CFR Section 403.5(b)(8), all POTWs are required to prohibit the discharge of hauled waste except at points designated by the POTW. The General and Specific prohibitions are a part of the NPDES permit for the POTW. In addition to designating a discharge point, many POTWs have implemented other controls on the discharge of hauled waste. These controls include applying limits to hauled waste, issuing permits to waste haulers, implementing tracking systems, sampling loads, and in some cases, refusing all hauled waste. The control of waste haulers at POTWs with pretreatment programs has resulted, in some cases, in the disposal of hauled waste shifting to facilities without a pretreatment program (Anon-pretreatment@ POTWs) or to places that are not environmentally suitable. The result of this shift is an increase in negative impacts to the non-pretreatment POTWs and potentially to receiving water bodies. The lack of controls on hauled waste at some smaller POTWs may result in the

POTW=s operations being disrupted by the high strength loads from haulers. In addition, some waste haulers have chosen disposal options that are not environmentally or legally responsible options.

The purpose of this guidance is to present practical information to treatment plant operators and local and state officials on controlling the discharge of hauled waste to POTWs. The specific elements of a waste hauler control program for each POTW may vary depending on factors such as what type of hauled waste is accepted, where in the treatment process the POTW accepts the various hauled wastes, POTW treatment plant capacity, flows and pollutant loadings, sensitivity of plant processes, and other local issues and requirements. Where necessary, minimum requirements for accepting hauled waste are specified. Definition of terms is very important when addressing hauled and trucked waste issues. **Definitions for standard terms are provided in Appendix A.**

Statement of Requirements

POTWs shall implement a program to ensure that: (1) any trucked or hauled waste discharged to the POTW (including the sewerage system) is done so only at a specific designated disposal station; (2) the POTW shall ensure that the designated disposal station is established so as to ensure that discharges are not made in a manner that would be described as uncontrolled. This includes ensuring limited access, knowledge of the POTW that discharge is being made (or was made), and knowledge of what wastes are being discharged; (3) the POTW shall ensure that all trucked or hauled wastes disposed of at the POTW are manifested as to source of waste and the quantity and type of waste; and (4) the POTW shall ensure that manifests are completed by the waste haulers or businesses (generator) where a user has wastes picked-up and whether or not the tank, trap, sump, etc. holding these wastes is connected to the sewer system.

General Approach

The organization of the information provided in this Strategy document is based on the six basic steps to control waste hauled to POTWs. These steps are:

1. Identify waste haulers **potentially** discharging to the treatment plant and

notify all waste haulers operating within the POTW=s jurisdiction on requirements;

2. Identify commercial/industrial users within the POTWs jurisdiction that have waste picked up or otherwise have tanks, interceptors, traps, etc., that are or should be pumped out on a periodic basis. The POTW may focus on industrial sources where waste haulers implement a manifest system ;

3. Develop the legal authority and permits, as necessary;

4. Develop procedures on the manifesting, self-monitoring, compliance monitoring, access to the POTW, etc;

5. Characterize the hauled waste received in terms of pollutants present and loadings of these pollutants. Evaluate potential impacts to the treatment plant;

6. Implement a hauled waste program/procedures.

The remainder of the Strategy document corresponds to the steps listed above.

1. COLLECTING WASTE HAULER INFORMATION AND EDUCATION

The POTW=s initial information collection will be used to control and track hauled waste activities within the POTW=s jurisdiction. The general steps to be followed are:

A. Identify the waste haulers operating within the POTW=s jurisdiction and collect information.

B. Identify businesses that have wastes pick up by waste haulers and collect information.

C. Meeting with Waste Haulers to explain program.

D. Meeting with Businesses to explain program.

E. Meeting with Economic Development, Police Department, Fire Department, etc. to explain the program and alert the local law enforcement agencies what to look regarding potential wrongdoing.

1.1 Collect Waste Hauler Information

The POTW must identify waste haulers that may discharge to the POTW, those haulers located within the POTW=s jurisdiction, haulers that pick up any wastes from users within the POTWs jurisdiction, and any hauler that picks up and hauls waste to the POTW from outside of the POTWs jurisdiction and service area. This can be done by conducting a waste hauler survey. The information gathered will be the basis for controlling specific waste haulers, characterizing types of hauled wastes, evaluating the potential impacts on treatment plant processes, and determining appropriate controls. Therefore, to help identify all potential waste haulers operating in the area (including those in neighboring jurisdictions) and to identify their mailing addresses, POTW staff should consult the following sources that might list waste hauler businesses:

- **$** Business license records
- **$** Chamber of Commerce rosters
- **$** Local telephone directories
- **$** Internet searches
- **$** City and State industrial directories.
- **$** Region VIII, Industrial Pretreatment Program
- **$** State/County Health Departments

- $ City sales tax records
- $ State lists of hazardous waste generators and treatment, storage, and disposal facilities (TSDFs).

Once the initial list of all business that may be involved in hauled waste activities is completed, the POTW should require each owner/manager of a waste hauler business identified above to complete a questionnaire or permit application form. It is important to involve and educate the decision-level managers and owners; therefore, the questionnaire or application form should be completed and signed by an authorized representative who would know about or be able to refer to customer records. The following is a list of information that POTWs should have on record prior to granting a waste hauler approval to discharge waste to the POTW or issuing a permit:

- $ Name of business
- $ Name of owner
- $ Address and phone number
- $ Type(s) of waste hauled
- $ Estimated number and volume of loads collected per week for each waste type
- $ List of non-domestic customers
- $ Number and capacity of vehicles
- $ Hours of operation
- $ Names of other POTWs where hauled waste is discharged
- $ Types of other wastes and where they are disposed (other than those listed above)
- $ The signed certification at 40 CFR Section 403.6(a)(2)

If the hauler serves non-domestic customers (e.g., commercial businesses or industry), more detailed information may be necessary. This information should generally include the name, phone number, and mailing address of the waste generator; estimated volume and general type of wastes; a determination of whether the waste is hazardous or subject to Categorical Pretreatment Standards; and the reason for wastes being hauled to the treatment plant. This latter question refers to why the non-domestic source is being hauled rather than discharged from the source.

A letter should accompany the questionnaire or application form stating the purpose

of the form and the deadline for its completion.

The initial identification and questionnaire phase is the place to look at data management. POTWs should keep all records on waste haulers that were initially identified and sent questionnaires. POTWs should establish a system for maintaining waste hauler information including haulers and their wastes approved for discharge, manifests of hauled waste loads, sampling results of hauled waste loads, and other relevant information. Maintaining such information will allow the POTW to track the types and amounts of hauled waste received and may assist in identifying the source of a waste load that caused problems.

A sample waste hauler survey is included in Appendix B.

1.2 Collect Information on Businesses that Contract With Waste Haulers

The POTW must identify those non-domestic sources that have waste picked up by waste haulers. Non-domestic sources may fall into 2 categories: (1) those that have sand traps, grease interceptors, etc., that are **connected directly or indirectly** to the POTW sewerage system, and (2) businesses that have wastes picked up that come from tanks, interceptors, etc. **that are not connected** to the sewerage system. This is particularly important where a POTW decides to implement a program to control non-domestic users as the primary trucked and hauled waste strategy.

This step is especially critical for POTWs that design their programs to focus on the businesses that generate the wastes. Where a waste hauler cooperates with the POTW and implements a manifest program, the POTW can focus more on the businesses that generate industrial type of wastes (sand traps, industrial waste waters, chemical toilets, etc). Where a waste hauler refuses to cooperate, the POTW should require local businesses to have a waste hauler complete a manifest and keep this information on file. Though much more labor intensive, it does make the businesses take a more active role in the management of their wastes and provides assurance to the business that wastes were disposed of properly. Many POTWs use this to support their sewer maintenance activities and ensure waste is disposed of on a routine basis minimizing problems in the sewerage system.

The following is a partial listing of non-domestic dischargers that may have wastes picked up and hauled off:

- **$** Grease Interceptors: Restaurants, grocery stores, food processing, nursing homes, schools.

- **$** Sand Traps: Gas and Service Stations, aircraft maintenance, car and vehicle washing, industrial/commercial laundries.

- **$** Industrial liquid hydrocarbon wastes and sludges: Oilfield servicing, underground storage tank wastes.

POTWs should survey the businesses to ascertain which ones have waste periodically hauled off. Also, some businesses may have sand traps, grease traps, sumps, etc. that have never been pumped. These should be identified.

Once the initial list of all business that generate hauled or trucked wastes is compiled, the POTW should require each waste generator to complete a questionnaire where one was not previously completed. It is important to involve and educate the decision-level managers and owners; therefore, the questionnaire or application form should be completed and signed by an authorized representative. The following is a list of information that POTWs should have on record:

- **$** Name of business
- **$** Name address and phone number of business
- **$** Name of contact at business
- **$** Type(s) of waste picked up from business
- **$** Estimated number and volume of loads per month disposed of (or appropriate timeframe)
- **$** Name and address of business(es) that pick up the waste
- **$** A determination of whether the waste is hazardous or subject to Categorical Pretreatment Standards
- **$** The signed certification at 40 CFR Section 403.6(a)(2)

A letter should accompany the questionnaire form stating the purpose of the form and the deadline for its completion.

As with the waste hauler information collection, the initial identification and

questionnaire phase is the place to look at data management. POTWs should keep all records on all businesses that were initially identified and sent questionnaires. POTWs should establish a system for maintaining waste generator information. Maintaining such information will allow the POTW to track the types and amounts of hauled waste received and may assist in identifying the source of a waste load that caused problems.

Again, where the waste hauler(s) agree to provide manifests for all loads picked up, the necessity for the POTW to identify and track businesses is reduced. Under this situation, the POTW need not focus on restaurants, grocery stores, etc., for the purposes of this strategy. This requires that the waste hauler provide the completed manifests to the POTW. The POTW should use the completed manifests to ensure that a grease control program prevents interference with the sewer system by these sources. The POTW must continue to identify and evaluate other sources that produce non-domestic, incompatible wastes. In addition, the POTW should periodically check the accuracy of the completed manifests.

1.3 Training and Communication with Waste Haulers

POTW=s should establish a mailing list of all local waste haulers and provide them with periodic information on what is going to be required, specific coverage of policy and ordinance requirements, reminders of existing POTW policies that are frequently abused, and changes in operating times and fees. POTWs are frequently the only source of regulatory information for waste haulers. A very useful tool is providing periodic training to waste haulers on local requirements. The training would involve managers, administrative staff, and the drivers.

Region VIII strongly suggests that POTWs in a geographic area coordinate a training session for all identified waste haulers in the region. EPA will provide on-site assistance in the training.

1.4 Communication with Businesses that have Wastes Picked-Up

POTWs should establish a mailing list of all businesses that have waste picked up within the POTW=s service area. The POTW should provide a training session that includes these businesses only. This meeting should not be combined with the waste hauler training, as the focus and interest will be different. A business will have very little, if any, additional requirements to contend with. The actual source of Indirect Discharge is the

waste hauler. The POTW should provide the businesses with information on policy and requirements. POTWs are frequently the only source of regulatory information for these businesses. The training would involve the managers and maintenance staff. EPA will provide on-site assistance in the training.

1.5 Communication with Other City Agencies

The POTW should also consider holding a meeting and bringing together appropriate personnel such as the Mayor/City Manager, local Economic Development Council, Police Department, Building Code Department, Fire Department, Public Information Officer, and others as appropriate, to explain the program and requirements. Coordination with these groups will avoid problems and promote communication. In particular, the Building Code Departments are responsible for issuing permits for new and modified construction and are the first ones with knowledge of what is occurring within businesses. The Police Department should also be well briefed to ensure that if they observe a waste hauler discharging waste they will be able to determine whether the discharge is occurring at an acceptable location and in an acceptable manner.

1.6 Communication with the General Public

It is generally a good idea for POTWs to let the public know about the specific environmental programs. The POTW may want to include information on illegal dumping of hauled and trucked waste when giving talks to schools, at POTW tours, household hazardous waste collection events, in newspaper and TV interviews, flyers and education materials that are distributed, labeling of storm drains, direct mailings, etc. The public is in the best position to observe the illegal discharge of trucked and hauled wastes.

1.7 Communication with Other POTWs

To effectively control hauled waste, all POTWs within a geographic region should readily share the information they receive on hauled waste with one another. When a POTW rejects a load, the operator should consider contacting nearby facilities immediately to inform them why the load was rejected. The POTW should also do follow-up with the waste hauler to determine the ultimate disposition of the waste. If the waste hauler refuses

to provide the information, contact the appropriate pretreatment contact listed in Appendix F. POTWs should also communicate with one another to identify frequent violators. A list of haulers with frequent violations, including type of violation, can be distributed among regional POTWs.

2. DEVELOPING THE LEGAL AUTHORITY

To avoid complications caused by discharges of waste hauled to a POTW, all POTWs that receive hauled or trucked wastes must implement a program to control hauled waste. Prior to implementing a control program, POTWs should first review and revise their legal authorities, as necessary, to ensure that adequate legal authority is available for all proposed controls. Regarding legal authority, three items are of particular importance and shall be discussed in this section: the manifest, ordinance/rules governing hauled waste, and the waste hauler permit.

2.1 Waste Tracking/ Manifest System

A manifest system is a requirement for all POTWs accepting hauled waste and should be included in the POTW=s legal authority. A manifest is the primary mechanism by which a POTW will know what quantity and quality of wastewater is being discharged and is the primary mechanism by which a waste hauler provides assurances that only allowable wastes are being discharged. In addition, the manifest provides a tool that the POTW uses to ensure that wastes from non-domestic users are picked-up on a periodic basis and information as to the ultimate disposition of the wastes. The use of a manifest is the control that can readily be employed independently of a permit system. **A model manifest is provided in Appendix C** of this document. This type of system would require a waste hauler to complete an entry on the waste manifest form for each load(s) picked up. The manifest form should include information such as:

- Name, address and phone number of hauler and each generator
- Types of wastes collected from each generator
- Size of tank that was pumped at each pickup side
- Gallons pumped by the hauler for each location where wastes are picked up
- Certification by the transporter of the waste type and that the waste is not hazardous and is being disposed of in accordance with POTW requirements when disposed of at the POTW or within the sewer system
- Results of any testing performed on the wastewater (may be attached to the manifest if required)
- Specifies where the waste was disposed of

Prior to each discharge, the POTW should require that the completed manifest be available and provided upon request. Each manifest should be completed in duplicate at a minimum: one copy for the waste hauler and one copy for the POTW. Use of a triplicate form, allowing for a copy to be provided to the generator, is most desirable. The POTW should supply blank manifest forms to each approved waste hauler. Designated POTW

personnel should periodically verify the information provided on the manifest form by contacting the sources provided on the manifest.

The POTW should require that the waste haulers that operate in the POTWs jurisdiction maintain manifests for all wastes picked up in the POTWs jurisdiction. The POTW may require the waste haulers to submit the manifests to the POTW. This provides a very useful mechanism for the POTW to track whether various non-domestic users are being serviced on a periodic basis (grease traps, sand traps, etc.) . Further, the POTW can use the information to ensure that inappropriate wastes are disposed of properly by reviewing the manifests at the waste hauler=s business. The manifest is also important to track where waste is actually discharged if rejected by the POTW.

2.2 Legal Authority

The legal authority of a POTW or other local authority to administer controls on hauled waste, or implement a hauled waste permit program is derived from Federal pretreatment requirements, State and local law. The local legal authority must describe all of the controls in sufficient detail so that waste haulers and POTW personnel will know the procedures, expectations, and liabilities associated with the program. Adoption of legal authority for hauled waste should conform to local requirements and must be submitted to the Approval Authority as a substantial modification for POTWs with approved pretreatment programs. POTWs without approved pretreatment programs must adopt legal authority in accordance with procedures required by local codes.

2.3 Provisions Necessary for Controlling Waste Haulers

The legal authorities required for an effective waste hauler control program are similar to those for regulating other industrial users connected to the POTW; however, there are certain additional provisions which should be included in the POTW=s sewer use legal authority. Some of the standard requirements address the uniqueness of accepting hauled waste. In particular, the hauled waste ordinance/rules should contain the following provisions:

? Prohibition on the discharge of hauled waste except at points designated by the POTW.

$ Requirement that the hauled waste meet all applicable Federal, State, and local Pretreatment Standards and requirements including categorical standards

developed for the waste generator=s industrial category.

- **$** The POTW may require commercial, industrial, and/or domestic-only waste haulers to obtain a permit.
- **$** The POTW may collect samples of the hauled loads to ensure compliance with applicable Pretreatment Standards.
- **$** No load may be discharged without prior consent of the POTW.
- **$** The POTW may require the hauler to provide a waste analysis of any load prior to discharge.
- **$** Requirement that waste haulers must use a POTW approved waste manifest system.
- **$** Penalties for violating the ordinance, rules or permit.

A model Hauled Waste Legal Authority is provided in Appendix D. This Legal Authority authorizes the POTW to implement a full program to control hauled waste.

2.4 Permitting

A permit system is the most direct and efficient method of regulating waste haulers who discharge to a POTW. If a POTW accepts hauled industrial waste (including wastes regulated by Categorical Pretreatment Standards), it should also consider permitting the waste generator as well as the waste hauler. If a POTW=s legal authority (ordinance or rules) prohibits the discharge of hauled waste without a permit, any hauler that discharges to a POTW without a permit is in violation and is liable regardless of whether or not they received notification of permit requirements.

Permit Conditions

The following is a list of conditions that a POTW should consider including in discharge permits issued to waste haulers:

- **$ Right of Refusal to Accept Waste -** The POTW should maintain the right to refuse any hauled waste load.

- $ **Non-domestic Loads -** The waste hauler should be limited to discharging only domestic waste if the POTW is not capable of treating hauled non-domestic wastes. However, if a POTW can treat non-domestic wastes, or only certain non-domestic wastes, then provisions for these discharges should be established. To account for the nondomestic wastes it receives from waste haulers, the POTW should require a list of customers from each hauler, date of discharge, and gallons discharged from each customer.

- $ **Prohibited Discharges -** Waste haulers must always be prohibited from discharging wastes which would violate any prohibited discharge standards of the General Pretreatment Regulations [40 CFR sections 403.5 (a) and (b)] or any local prohibited discharges.

- $ **National Categorical Pretreatment Standards -** If waste haulers are allowed to discharge nondomestic wastes to the POTW, then whether the sources of these waste are regulated by National Categorical Pretreatment Standards should be determined. If a hauler discharges categorical process wastewater, the permit must require compliance with applicable Categorical Pretreatment Standards.

- $ **Local Limits -** The permit should require compliance with any local limits established by the POTW, including any specific limits applicable to hauled waste or septage.

- $ **Designated Disposal Site -** The permit should clearly designate the disposal site. The permit should also state all facility rules for discharging such as clean-up requirements.

- $ **Number of Loads -** If a POTW is susceptible to hydraulic or organic overloading, it may wish to consider placing a limit on the maximum number of loads that a waste hauler can discharge over a specified period of time.

- $ **Time Limitations -** Specific days and/or hours that waste haulers are allowed to discharge should be stated in the permit conditions.

- $ **Waste Tracking/Manifest System -** The permit should contain a condition that requires the waste hauler to provide documentation on the nature and origin of the wastes being discharged.

- **$ Notification of Waste Type -** The POTW may want to require that any non-domestic waste be approved prior to being hauled. The permit should require the hauler to notify the POTW of new non-domestic customers, as well as, changes in the nature of wastewater originating from existing customers. Under 40 CFR Section 403.12(j), industrial users are required to notify the POTW of any substantial changes in the volume or character of pollutants discharged. POTWs should require this same notification from waste haulers that discharge industrial wastewater.

- **$ Standard Conditions -** Many of the standard conditions placed in other industrial user permits should also be contained in waste hauler permits. A few of these are: modification of conditions, non-transferability, revocation of permit, and penalties/fines. The POTW could also consider requiring waste haulers to post a performance bond.

- ? **Significant Industrial User -** If a waste hauler meets the definition of significant industrial user [40 CFR Section 403.3(t)] and the POTW has an approved pretreatment program, the POTW must permit the waste hauler as a significant industrial user and the permit must include all conditions required under 40 CFR Section 403.8(f)(1)(iii).

A model Hauled Waste Permit is provided in Appendix E. This model permit allows the POTW to control and require waste haulers to perform specific Pretreatment Standards and requirements.

3. DEVELOPING PROCEDURES

Once the legal authority is in-place, the POTW must address items that are unique to the acceptance of hauled wastes. These are:

- Designating a Disposal Site(s)
- Establishing Hours of Operation
- Establishing a POTW Compliance Monitoring Program
- Defining Sample Types
- Defining Sampling Frequency

3.1 Controlled Designated Disposal Site

Under Federal Regulations (40 CFR Section 403.5), POTWs must prohibit the discharge of any trucked or hauled pollutants except at discharge sites designated by the POTW [i.e., no waste hauler may discharge to a POTW except at a discharge point specifically designated by the POTW].

Most POTWs specify discharge sites that are located at the treatment plant while a few allow hauled wastes to be discharged at remote sites within the collection system (e.g., manholes or pump stations). POTW operators may have to make a difficult decision concerning discharge site location. Factors to consider when designating the location of a discharge site include sensitivity of the treatment plant to pollutant loadings from hauled waste discharged directly to the headworks of the treatment plant, accessibility to the discharge site, and visibility of the site to POTW personnel (i.e., the ease of surveillance). Generally, the further Aupstream@ a discharge site is from the headworks of a facility, the longer the waste has to mix with other wastewater that may equalize and dilute it, creating less chance for plant disruption. However, some treatment plants have holding facilities that allow hauled waste to be collected and stored for discharge to the plant when influent POTW pollutant loadings are lowest. Other treatment plants provide equalization basins that allow hauled waste to be mixed and equalized with influent wastewater; thus allowing the operator to better control flow and loadings to the headworks. However, control over a remote site is more difficult and more costly if personnel need to be stationed at the site, or if the installation of gates or surveillance devices (such as cameras) becomes necessary. If the POTW is allowing discharge at a remote site, or of the POTW is not staffed during discharge events, the POTW must ensure that access is controlled (e.g. locked gate, etc.) and that the waste hauler supply a manifest for waste that was brought in. The POTW should consider only allowing discharge during working hours and independent, unannounced verification (onsite) should be implemented.

If hauled waste is discharged at the treatment plant, discharge to the headworks is generally preferred, though for some type of waste (e.g. grease traps) discharge may occur elsewhere. Hauled waste receiving stations located at the treatment plant may include an unloading area, a receiving/storage tank, and transfer pumps.

The following factors should be considered in the design of the receiving station:

- **Speed limits on POTW Roads -** Speeds should be posted clearly to ensure the safety of the haulers and POTW personnel.

- **Sight Lines -** Blind curves and corners should be avoided. Particularly dangerous areas should be clearly indicated with appropriate signs.

- **Wear on Roads -** The constant wear from trucks may increase maintenance costs if access roads are not properly designed.

- **Vehicle Access -** Adequate space should be allowed for vehicles to back-up if a pull-through station is not used. Providing access and explicit instructions for recreational vehicles should also be considered, if these types of vehicles are expected to use the station.

- **Security and Visibility** - The receiving station should have limited access (e.g., have locked gates and access cards). The receiving station should also be clearly visible to POTW personnel or monitored through cameras to ensure that the POTW is aware when a truck is entering to dump.

- **Surface and Slope of Discharge Area -**The discharge area should be constructed of a hard surface material and the discharge location should be graded so that it slopes toward the catchment. This will help empty the entire truck as well as keeping the site clean and dry, and will allow storm water coming into contact with the pavement around the discharge location to be directed towards the catchment.

- **Receiving Tank** - The receiving tank or station should have a sloped bottom equipped with a drain sump to provide for complete draining and cleaning.

- **Clean-up -** A water hose should be provided for clean-up of the unloading station, as well as to wash off the truck. Chlorinated treatment plant effluent may be considered for this use. Wash waters should be directed toward the catchment.

3.2 Access, Hours of Operation

Controlling access to a discharge site can greatly reduce the possibility of facility disruption by illegal or incompatible discharges. Manual locking gates can be installed at the site entrance. Several facilities are now equipped with an electronic card access system. Permitted haulers are given an electronic Acredit@ card which serves as a key to the facility, and which may also be used for waste hauler tracking and billing. One potential drawback to such a system is that cards may be Alent@ to unpermitted haulers.

When determining hours of operation and discharge time limitations, POTWs should consider the times when POTW personnel are available and the times during the day that peak and low flows occur within the collection system and within the treatment plant. This is especially true for smaller POTWs where peak and low flows may be of particular concern. Twenty four hour access is an option which may be appropriate for some facilities (e.g., facilities that are staffed at all times). Twenty four hour access may increase the period of time between discharges and increase flexibility for septage haulers.

3.3 POTW Compliance Monitoring Program

Monitoring is necessary to gather information about the characteristics of the hauled waste that is discharged to the treatment plant, and to determine if that waste should be rejected because of negative impacts to the facility. A monitoring program demonstrates to the waste haulers that the POTW is serious about enforcing the standards and requirements of its hauled waste control program and will ensure that waste haulers are accurate in their completion of manifest. For these reasons, POTWs should include monitoring as part of their waste hauler control program, particularly if non-domestic wastes are accepted.

Many programs have opted to collect samples on a random basis (i.e. every five trucks or every truck is sampled (whether analyzed or not). Region 8 strongly suggests that pH measurements be taken on every non-domestic load as a screening tool.

3.4 Sampling Frequency for Compliance Monitoring

The POTW has a number of issues to consider when establishing the frequency of

sampling, including:

- **$** Frequency necessary to obtain data representative of the nature and volume of the hauled waste
- **$** Frequency necessary to deter unscrupulous haulers from delivering and discharging incompatible wastes
- **$** Potential impact of the hauled waste on the operation of the treatment plant, receiving water body, and sludge disposal practices
- **$** The hauled waste source and the types and concentrations of pollutants contained in the waste
- **$** Regulatory requirements of any permits, local ordinances/rules, POTW policies, and Federal regulations
- **$** Seasonal variations in the volume and makeup of hauled waste
- **$** Availability of POTW staff
- **$** Trends in delivery times
- **$** Compliance history of the waste hauler
- **$** Expense of sampling and analysis

The Control Authority should establish a base sampling frequency and increase or decrease the frequency on a case-by-case basis using the factors discussed above. A base sampling program for non-domestic waste should, at a minimum, include:

- ? Visual observation and recording of any unusual odors, color, or other characteristics
- ? Monitoring of pH
- ? Collection of a grab or composite sample of the hauled waste

While an effective deterrent, sampling alone (without subsequent analysis) may not provide complete protection from incompatible loads. Treatment plant operators may find the need to perform a quick analysis of a load before discharging to the headworks for any number of pre-determined or suspect parameters. Analyzing for pH is perhaps the most effective way to discover incompatible loads and can be assessed rapidly.

Sampling programs that may be instituted are described below:

- **$** ***Comprehensive sampling and analysis of all non-domestic hauled wastes and periodic sampling and analysis of domestic septage*** *C* All hauled wastes of non-domestic origin are sampled and analyzed and every (third or fifth

or tenth) load of domestic septage received from each hauler is sampled and analyzed.

- ***Comprehensive sampling of all hauled wastes and periodic or random analysis of the collected samples*** – A sample is collected from each hauled waste load. The samples are preserved and stored. A proportion of these samples are analyzed. Each hauler knows that all of his loads will be sampled but does not know which of his loads will be analyzed. In addition, if a disruption in plant operations occurs, the stored samples can be used to determine the exact makeup of the load which caused (or is suspected of causing) the disruption. If several loads were received, the stored samples of all these loads can be analyzed to assist in identifying the waste hauler and waste load that may have caused the disruption.

- ***Random sampling and analysis*** – Sample collection and analysis are conducted on a random basis. For example, the POTW randomly selects a day to conduct sampling and all waste loads that are received that day are sampled and analyzed or the POTW may collect and analyze samples every day but randomly selects the loads to be sampled and analyzed (i.e., every fifth truck or seven random samples per day).

3.5 Sampling Frequency for Self-Monitoring

Where a POTW establishes self-monitoring requirements in a permit issued to a transporter of hauled waste, the self-monitoring frequency for pollutants will be established based upon a number of the considerations specified in the previous section. Some of these considerations include, type of waste to be discharged, volume and nature of waste, and knowledge of the practices of the waste hauler.

3.6 Sample Types

Decisions on whether to accept a load of hauled waste may be based on incorrect information if sampling is not done properly. Proper techniques, as found in 40 CFR Part 136, must be used for sample collection, preservation, storage, and analysis if reliable results are expected to be attained. If the POTW is controlling discharges through the use

of permits (for trucked or hauled waste), the POTW will have to decide whether to establish self-monitoring requirements for transporters or to rely solely on a compliance monitoring program. Where a POTW establishes self monitoring requirements for transporters, the POTW must provide training to the Permittee regarding appropriate sample collection. This is important since the drivers will typically be taking samples during discharge to the POTW.

There are two basic types of samples: grab samples and composite samples. For sampling hauled waste, both sample types are collected manually. The determination as to which sample type to use will depend on several key factors including:

- **$** Composition of the waste that is being received
- **$** Pollutants to be analyzed
- **$** Physical setup of the receiving station
- **$** Purpose of the sample
- **$** How well mixed is the load
- **$** Volume of load

Grab Sampling

A grab sample is a single discreet sample collected over a short period of time without regards to the waste stream=s flow. Grab samples are useful in taking a Asnapshot@ of a discharge, and can provide information on the extreme pollutant concentrations of a load, where composite sampling may mask the extreme pollutant levels. Grab samples may be used when both flow and pollutant concentrations or loadings are constant and should only be employed when the POTW operator has determined the waste contained in a hauler=s truck is homogeneous. Grab sampling is used when collecting composite samples are not appropriate. For example, grab sampling is necessary for such parameters as pH, oil and grease, temperature, total phenol, cyanide, sulfides, and volatile organics.

Composite Sampling

Composite samples are used to measure the average amount of pollutants discharged by a waste hauler during the entire discharge period. A composite sample is a mixed or combined sample that is formed by combining a series of individual or discrete grab samples collected over a period of time, or representing more than one specific location or depth.

Composite sampling of hauled waste consists of collecting time-proportional samples at specified intervals during a discharge. For a non-homogeneous discharge, wastes are stratified in the hauler=s tank and the effluent=s quality will vary over the discharge period. For this situation, the composite sample collected over the discharge period would be most appropriate. Grab samples should be taken at least three times during the discharge and then composited: once at the onset of the discharge where a higher concentration of solids are likely to occur, once in the middle of the discharge, and once at the end of the discharge where light oils are most likely to appear. The POTW may require more grab samples to be taken if the POTW feels that the sample is not representative.

4. WASTE TYPES AND CHARACTERIZATION

This section provides information on the most typical wastes that will be hauled and discharged to the POTW. Table 4.1 lists many of the most common wastes that are transported to a POTW. With each waste type, there are pollutants that may be expected to be present. For these pollutants, the POTW should evaluate the potential for Pass Through, Interference, adversely affecting current or future Biosolids disposal, and adverse effects on worker health and safety.

Table 4.1 Pollutants to Evaluate During Initial Characterization

Type of Hauled Waste	Potential Pollutants of Concern
Domestic-Only	BOD, TSS, Metals
Grease Interceptor/Trap Waste	pH*, BOD, TSS
Industrial Waste:	
Sand Trap Wastes	Metals, TSS, Petroleum Oil and Grease
Landfill Leachate	BOD, TSS, Oil and Grease, ammonia,

	sulfates, iron, manganese, pH, phenols, phosphorus, metals, organic solvents
Chemical Toilets, Port-O-Potty	Bacterial Inhibitors, BOD, COD, TSS, Ammonia-N, zinc, mercury (infrequent hits)
Ground Water Cleanup - Fuel contaminated wastewater	Benzene, Ethylbenzene, Toluene, Xylene, methyl tert-butyl ether, naphthalene, petroleum oil & grease, and lead
Groundwater remediation site (not associated with fuel contamination)	Determine from the groundwater remediation investigation reports
Categorically Regulated Wastewater	All applicable Categorical Pretreatment Standards
Leachate from hazardous waste disposal sites *DO NOT TAKE UNTIL CONSULTATION WITH YOUR APPROVAL AUTHORITY*	Unique to the wastes involved
Listed or Characteristic Hazardous Waste *DO NOT TAKE UNTIL CONSULTATION WITH YOUR APPROVAL AUTHORITY*	Unique to the wastes involved

*** Grease trap waste may have a pH less than 5. To accept this waste the POTW must determine that the grease type waste with a pH<5 will not cause corrosive structural damage.**

4.1 Wastes That POTWs May Expect

Domestic-Only Wastes

The majority of waste hauled to POTWs is domestic septage, defined as the liquid or solid material removed from a septic tank, cesspool, holding tank, or a similar system that receives only domestic waste (household, non-commercial, non-industrial sewage). Compared to sewage entering a POTW through a sewerage system, domestic septage is often partially digested and has higher concentrations of solids and heavy metals. The waste that a septage hauler may deliver to a POTW will vary substantially in pollutant concentration as compared to domestic household sewage. Table 4.2 lists some of the reported concentrations for metals for hauled domestic-only septic tank waste as

compared to domestic waste discharges directly to a sewerage system.

Non-Domestic (Industrial Wastes)

Non-Domestic Wastes or industrial wastes, include, but are not limited to:

- **?** Grease Interceptor/Trap Waste
- **?** Industrial Wastes
  Including Sand Trap Waste, Landfill Leachate, Groundwater Remediation, Chemical Toilets/Port-O-Potty-s, etc.
- **?** Categorical Wastes
- **?** Hazardous Wastes

Grease Interceptor/Trap Wastes

Fats, oil and grease of animal or vegetable origin collected from grease interceptors and traps are sometimes hauled to POTWs. Fats, oil, and grease of animal or vegetable origin can be solid or viscous at ambient temperatures and can cause blockages in pipes, clogging of pumps, and coating and clogging of monitoring probes. In addition, oil and grease from grease traps may have a pH less than 5. The pH prohibition in 40 CFR Section 403.5(b)(2) prohibits the POTW from accepting wastes at a pH of <5 unless the works is specifically designed to accept low pH wastes. Most POTWs accept grease type wastes at the headworks or in the drying beds. The POTW should ensure it evaluates the receiving stations to ensure that it will not be adversely affected by the low pH wastes. Accumulation of oil and grease in anaerobic digesters can reduce the effective capacity of the digesters. If contents are not kept well mixed and heated, solid scum layers can form and cause blockage in pipes.

Sand Trap Wastes

Sand Trap Wastes are typically generated from the use of oil/water separators found in vehicle maintenance facilities, truck washes, car washes, etc. Unlike animal and vegetable oils that can, in a dispersed state, be treated in aerobic and anaerobic biological systems, petroleum-based oils are degraded slowly by microorganisms and can reduce treatment efficiency. In addition, significant quantities of metals may be contributed from these sources.

Landfill Leachate

Landfill leachate typically contains a wide variety of pollutants. Prior to acceptance of this waste, the POTW should require extensive testing of the wastewater. Periodic

monitoring, prior to discharge to the POTW, should be required.

Ground Water Remediation

Ground Water Remediation wastewaters are most commonly a result of gas, oil, or diesel contaminated ground waters. The POTW should be particularly aware of these types of waste and limit accordingly. The most common limits placed on these facilities is BTEX, LEL, and petroleum oil and grease. Where other types of ground water remediation is occurring, the POTW should require data on the quantity and quality of pollutants present.

Chemical Toilets/Port-o-Potty

No other waste has the potential to interfere with a POTW=s treatment system as the wastes produced by the Chemical Toilet industry. Most POTWs can accept the routine, relatively small volume of these wastes. However, when cultural events occur and large numbers of these wastes are discharged in a short period of time, the potential for POTW Interference and Pass Through is high. The wastes contain high concentrations of disinfectants and substances which generate very high BODs and CODs. The POTW must evaluate carefully how much of this waste can be accepted.

Categorical Wastes

Categorical Pretreatment Standards are contained in 40 CFR Parts 405-471. Categorical Pretreatment Standards are standards published by the EPA for the different categories of industrial users. These standards are published in accordance with Section 307(b) and (c) of the Clean Water Act (CWA). For categorical industrial users located in approved pretreatment programs, the POTW is the Control Authority. In addition, many POTWs have the authority to permit any Significant Industrial User that discharges wastewater to the POTW and would therefore, be the Control Authority for Categorical Industrial Users located outside of its sewerage district. Where the approved program does not have this authority or is not sure of its authority, EPA should be designated the Control Authority. For POTWs **without** approved programs the Control Authority is the delegated NPDES state or EPA. **See Appendix F for a listing of state-approved pretreatment programs and EPA contact information**.

Where a POTW decides to accept hauled categorical waste from a Categorical Industrial User, the POTW should obtain information from both the waste hauler and the facility from which the wastes are to be collected. The POTW should require that the generator of the wastewater provide a written determination of the applicability of any National Categorical Pretreatment Standard are applicable to the source(s). Waste haulers must be required to disclose that they are picking up such wastes through their answers on the initial questionnaire, permit application, change in discharge requirement, and other reports required by the POTW. The POTW must develop the legal authority to

control by permit the waste hauler and generator if it intends to accept wastewater covered by Categorical Pretreatment Standards. Some questions and information to request include:

- **$** Why does the generator want to haul the wastewater to the POTW?
- **$** Who (control Authority name) has the industry been reporting to?
- **$** Require copies of all periodic reports submitted by the industry for at least the last 3 years (if an existing source) and as required under 40 CFR Section 403.12.
- **$** What pollutants are known or suspected to be present in the hauled wastes?
- **$** Require prior testing of the wastewaters for pollutants of concern.
- **$** Provide any data to the Control Authority for that industry and ensure that the Control Authority determines that the discharge will be in full compliance prior to discharge to the POTW.
- **$** Prohibit mixing of other wastes with these Federally regulated wastewaters.

Hazardous Waste

Wastes are regulated as hazardous if they are listed as such in 40 CFR Sections 261.31-33 or if they exceed certain levels of ignitability, corrosivity, reactivity, or toxicity (as defined in 40 CFR Sections 261.21-24). POTWs that accept hazardous wastes by truck, rail, or dedicated pipe within the property boundary of the plant are considered to be hazardous waste treatment, storage, and disposal facilities (TSDFs) and, as such, are subject to the Resource Conservation and Recovery Act (RCRA) regulations under 40 CFR Part 264. Refer to the *Guidance Manual for the Identification of Hazardous Wastes Delivered to Publicly Owned Treatment Works by Truck, Rail, or Dedicated Pipe*, EPA 1987 for more information. The POTW should not accept any hazardous wastes without prior notice to the NPDES Permit issuing authority and the pretreatment program Approval Authority. These contacts will provide the POTW with information that will assist the POTW to make the decision whether to become a TSDF and who to contact regarding application requirements.

Table 4.2 Hauled vs. Discharged Wastes

Pollutant	Indirect Domestic Discharge (mg/l)	Hauled Domestic Discharge (mg/l)	Hauled Chemical Toilet Waste (mg/l)	Hauled Grease Interceptor/Trap Waste
	Average	Range	Range*	Range*
Arsenic	0.007	BDL - 0.20	BDL - 0.017	BDL - 0.06
Barium	0.115	5.758		
Cadmium	0.0008	BDL - 0.117	BDL	BDL - 0.25
Chromium (total)	0.034	BDL - 0.49	BDL - 1.86	BDL - 2.99
Copper	0.109	1.422 - 12.83	BDL - 7.344	BDL - 42.18
Lead	0.116	BDL - 1.21	BDL	BDL - 2.41
Manganese	0.087	6.088		
Mercury	0.002	BDL - 0.017	BDL - 0.077	BDL - 0.072
Molybdenum		BDL - 1.01	BDL - 7.347	BDL - 0.2
Nickel	0.047	0.375 - 2.65	BDL - 3.477	BDL - 2.95
Selenium		0.012 - 0.02	BDL - 0.0336	BDL - 0.027
Silver	0.019	BDL - 0.099	BDL	BDL - 1.25
Zinc	0.212	0.43 - 16.65	0.91 - 30.9	BDL - 88.53
Ammonia		63 - 545	996 - 10,200	28 - 3660
BOD		1530 - 18,000	2130 - 24,900	2120 - 60,300
TSS		28,200 - 28,900	1450 - 55,400	1020 - 207,600
Oil and Grease		309.67		

* The data for arsenic, cadmium, chromium, lead, mercury, molybdenum, nickel, selenium, and silver had observations that were most often measured as below detection. Data in this table was compiled from EPA guidance documents and actual data for hauled waste collected and reported by various POTWs within Region VIII.

4.2 General Waste Characterization

There are a number of questions to ask regarding the acceptance of trucked and hauled waste. Having the answers to these questions ensures that the POTW will not be adversely impacted.

Does the waste meet applicable numerical standards?

Local Limits

If the POTW applies local limits to hauled waste, then the waste must meet all applicable limits. Under no circumstances can a POTW accept hauled waste that would be predicted to cause an exceedence of the Maximum Allowable Headworks Loading (MAHL) for any pollutant. See Section 5 and the Region VIII Strategy of the Development of Local Limits for more information.

Categorical Pretreatment Standards

If the waste is subject to Categorical Pretreatment Standards then the waste must meet the standards prior to discharge to the POTW. Under no circumstances can the POTW accept the waste until it has been approved for discharge to the POTW by the Control Authority (the delegated NPDES State or EPA for POTWs without approved pretreatment programs - see Appendix F).

General and Specific Prohibited Discharge Standards

All POTWs are required to prevent the introduction of pollutants which may cause a prohibited discharge standard (40 CFR Section 403.5) to be violated. The POTW must evaluate the possibility that any particular waste would cause the standards to be violated. This evaluation may result in the need for local limits be developed or applied where no local limits had existed. The development and application of local limits must be done in accordance with the references listed above.

The POTW should develop a list of flammable, explosive, corrosive, and toxic chemicals and compare what is known about the waste type and any chemical analysis provided. If any of the pollutants that are known or suspected to be present in the load are on the list, further tests/analyses may be conducted to determine if the pollutants are present in concentrations that would pose a threat to the POTW processes or workers.

Will the waste cause the POTW to violate any NPDES permit requirement (particularly NPDES effluent limits)?

Answers to these questions are often not easy to determine. Assessing a POTW=s ability to treat a particular waste or pollutant requires specific information on removal of that

pollutant through the POTW. The need for information on removal is one reason that periodic monitoring of the POTW for influent and effluent pollutants is so important. The Approval Authority (EPA or delegated state) can also provide information on what the removal efficiency is based upon data from POTWs with similar types of treatment. The POTW may have to take one of the following actions where adequate information is not available.

? ***Refuse*** - Refuse the waste if it contains pollutants not on an Aaccepted list@ or wastes that are outside specified boundaries (e.g., pH, specific pollutant concentrations).

? ***Accept and Watch*** - Accept the waste and monitor and record any observable impacts. If there are no adverse impacts, the POTW continues to accept the wastes. If there are adverse impacts, the POTW rejects any further waste of that nature or determines what actions may reduce or eliminate the impacts.

Many POTWs believe that the Arefuse@ approach is the safest way to ensure proper operation of the treatment plant. If this approach is taken, the POTW should have some suggested alternatives for the hauler to encourage proper disposal. The Aaccept and watch@ approach places the POTW in a vulnerable position should the waste cause Interference or Pass-Through (resulting in NPDES permit violations, damage to the treatment plant or receiving water, or worker health and safety hazards). Again, it is critical the POTW evaluate its ability to receive and treat various pollutants before having to make a decision to accept a specific waste.

What are the general things a POTW should consider?

POTWs accepting hauled waste should conduct a technical analysis. This analysis is similar to and uses information from the local limits development process. This analysis should determine:

? Whether the POTW has the hydraulic and organic capacity to handle the additional hauled waste. Determine the unused treatment plant capacity available to handle and treat hauled waste loadings [the difference between the design or actual capacity (organic and hydraulic) of the treatment plant and the current and projected sewer collection system loadings]. Conduct this analysis on each individual unit process (including the sludge handling and treatment unit processes).

? Whether the POTW has the capacity to accept the additional pollutant loadings associated with the hauled waste. Determine the pollutant loading increases to the effluent, sludge, and air. Compare these increased loadings/concentrations to any environmental standards (NPDES permit limits, water quality standards,

sludge standards) to determine whether any standards will be exceeded.

- **?** Whether the unit operations are suitable for treatment of the pollutants in the hauled waste. Determine the pollutant concentrations and loadings that the unit operations can receive without exhibiting interference. For example, at what loading of TSS, BOD, or other pollutant does impairment of sludge settling or dewatering occur.

- **?** Whether the POTW has the ability to control feed rates of hauled waste to the treatment plant. Determine the sensitivity of treatment plant processes to daily fluctuations in hauled waste loadings. Systems acclimated to a specific type of waste (pollutants, concentrations, loadings) can be shocked if waste with different characteristics is introduced suddenly. Shocks can be prevented if the POTW has the ability to gradually mix this waste with its other incoming wastewater to minimize or eliminate the fluctuations caused by this waste. The POTW needs to determine when and at what rate the hauled waste can be discharged to the treatment system. Some POTWs store the hauled waste and then discharge it during off peak loading times while other POTWs discharge hauled waste during times of high hydraulic but low organic loading.

Determine Whether Waste Has Other Problem Characteristics

Hauled waste constitutes only a small percentage of the volume and pollutant loadings of a POTW and when the discharge feed rate is carefully controlled, interference and pass through may never occur. However, the hauled waste may create operation and maintenance problems that result in increased treatment costs and greater deterioration of equipment and facilities. A POTW should determine whether it is providing an environmentally sound treatment service or whether it is acting as an agent that dilutes and transfers the pollutants to other media such as the receiving stream, air, or sludge.

Will the waste cause other nuisances such as objectionable odors, pump or line cloggings, foaming aeration tank/aerated digester, or additional cleaning/maintenance?

A variety of problems have been associated with domestic and non-domestic hauled wastes:

- ? Increased volume of grit, scum, and screenings
- ? Increased volume of primary and secondary sludge
- ? Increased phosphorus load
- ? Bulking of activated sludge
- ? Difficulty in sludge thickening and dewatering
- ? Excessive foaming

Does the waste contain bioaccumulative and persistent substances that are not amenable to treatment?

If so, the POTW may want to handle these wastes in a fundamentally different manner because even very small amounts could cause a violation of a water quality standard, and these persistent substances could accumulate in downstream sediments, flora, and fauna that may require future remediation.

5. IMPLEMENTING HAULED WASTE PROGRAM

5.1 Local Limits

POTWs with approved pretreatment programs are required to develop and enforce local limits for pollutants of concern. Many non-pretreatment POTWs may also have developed local limits independently or may have been required to develop local limits if Pass Through or Interference has occurred or is likely to occur. Local limits are intended to prevent Interference, Pass Through, Biosolids contamination, and worker health and safety problems. The process of local limits development generally includes collecting monitoring data (e.g., influent, effluent, Biosolids, domestic/commercial contributions, hauled waste, and industrial user contributions) to characterize existing pollutant loadings, determining applicable environmental criteria, identifying pollutants of concern, and determining the Maximum Allowable Headworks Loading (MAHL) for each identified pollutant of concern. Maximum Allowable Industrial Loadings (MAILs) are then determined from the MAHLs by allowing for a safety/expansion factor and subtracting loadings from uncontrolled discharges (e.g., domestic and commercial loadings) and deciding on how much, if any, loadings to reserve for hauled waste discharges. Finally, the MAILs are allocated to industrial users as local limits.

Many times pollutant loadings from hauled waste are not accounted for in local limits development, even though hauled waste may contribute high pollutant loadings. Pollutant loadings from hauled waste should be determined and these loadings should be subtracted from the MAHL (along with domestic and other uncontrolled loadings) when determining MAILs. Alternatively, POTWs could allocate a portion of each MAIL to waste haulers and thus develop limits applicable specifically to hauled and trucked waste.

For more information on the development of local limits, refer to the *Region VIII Strategy of the Development of Local Limits.*

5.2 Identification of Illegal Dischargers

Identification of a waste hauler as the source of Pass Through, Interference, or illegal dischargers can be a difficult task. Hauled waste can be discharged to a manhole and the hauler has left before the waste reaches the treatment plant. Approaches to help alleviate the problem include:

- **$** Periodic sampling of suspected sewer lines
- **$** Surveillance of waste haulers and suspected discharge points

- **$** Education of industries concerning the seriousness of these violations
- **$** Increased public awareness of illegal dumping
- **$** Increased enforcement and use of significant penalties and press releases

Many states have enforcement programs to assist POTWs in detecting illegal dischargers. In addition, Federal law enforcement agencies have the experience in investigating illegal criminal activities associated with hauled waste. In Region VIII, the following Federal criminal enforcement contact is available:

Criminal Investigation Division (8CID)
U.S. EPA - Region 8
Suite 300
999 18th Street
Denver, Colorado 80202

Contact: Mark Measer, Special Agent-in-Charge
Phone: 303-312-6626
Fax: 303-312-6517

EPA=s Criminal Investigation Division (CID) is the primary point of contact for environmental crimes in Region 8. Video surveillance of suspected manholes or storm drains is also a possible option. Some POTWs use locking manholes to discourage illegal dumping at suspected sites. It is important to consult EPA CID when investigating these types of crimes. Coordinating with outside law enforcement provides an excellent opportunity for local criminal law enforcement staff to gain training and experience in these areas.

5.3 Review and Update Controls

Once control measures are implemented, they should be periodically reviewed for their effectiveness and updated as necessary. Additionally, if the type or amount of hauled waste received changes, the controls should be reviewed to determine if additional controls are needed. For example, if a POTW has been receiving only domestic hauled waste and has implemented procedures to control the discharge of that waste, the introduction of hauled non-domestic waste may require the implementation of additional controls (e.g., increased monitoring).

5.4 Requirements for Waste Haulers Disposing of Domestic-Only Waste by

Land Application

40 CFR Part 503 addresses the management of septage generated from domestic sources only. If commercial or industrial wastes are combined with the domestic wastes, Part 503 does not apply to the use or disposal of the resulting septage. For more specific information regarding biosolids, please refer to 40 CFR Part 503 and see Appendix G for State and Federal Biosolids contacts..

Domestic septage, **for the purposes of use and disposal of biosolids**, is defined as "liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device or similar system that receives only domestic (non-commercial) septage." Substances often referred to as septage, such as grease trap residues, as well as grit and screenings, are not included in this definition.

The final Part 503 regulation provides a simplified regulatory scheme for the land application of domestic-only septage if the domestic-only septage is applied to "non-public contact sites," where the potential for public exposure is minimal, such as agricultural fields, forests, and disturbed sites in need of reclamation. Allowable land application rates are based upon the nitrogen requirement of the crop grown and yield expected.

Management of domestic-only septage in other ways (i.e., land application to public contact sites, surface disposal or incineration) must be performed in accordance with the same provisions that govern management of sewage sludge, with a major exception--there is no requirement to analyze domestic-only septage for pollutant concentrations for land application or surface disposal, unless the user/disposer chooses to treat it the same as sewage sludge.

Land Application of Domestic-only Septage to Non-Public Contact Sites

Under the Part 503 regulation, domestic-only septage appliers are required to:

1) Meet (and certify) applicable pathogen and vector attraction reduction requirements
2) Follow specific management practices
3) Apply domestic septage at rates based on nitrogen requirement of the crops
4) Ensure that the septage is from domestic sources only
5) Keep site application records

Septage tank pumpers who land apply domestic septage to agricultural land, forest, or reclamation sites are generally not required to obtain federal permits for these activities, but are subject to the same enforcement actions as other "sewage sludge" use or disposal operators if they fail to comply with applicable Part 503 requirements. The Clean Water

Act makes the Part 503 regulation enforceable without a permit being issued.

Pathogen Reduction

Pathogen reduction requirements applicable to land application of domestic septage can be achieved either through strict site restrictions or through stabilization of the domestic septage with alkaline materials and less limiting site restrictions. The site restrictions (including restrictions on crop harvesting, animal grazing and public access) vary depending on how pathogens are addressed. If domestic septage is not stabilized prior to application to agricultural land, forest, or reclamation sites, the same site restrictions as imposed on Class B sewage sludge are required. If domestic septage is stabilized prior to application by mixing with enough alkali material to raise its pH to at least 12 for at least 30 minutes, only the first four crop harvesting restrictions are applicable. No pathogen reduction requirements are imposed on surface disposal of domestic septage.

Vector Attraction Reduction

Three vector attraction reduction options (#9 - Injection, #10 - Incorporation, or #12 - Septage Treatment) may be employed when domestic septage is applied to agricultural land, forest, or reclamation sites. Four vector attraction reduction options (#9 - Injection, #10 - Incorporation, #11 - Daily Cover, or #12 - Domestic Septage Treatment) may be employed when domestic septage is placed in a surface disposal site. The treatment of domestic septage by pH adjustment to meet pathogen and vector attraction reduction requirements involves the same treatment process - mixing with enough alkali material to raise its pH to at least 12 for at least 30 minutes to meet pathogen reduction and vector attraction reduction requirements

Application Rate

The maximum volume of domestic septage that can be applied to agricultural land, forest or reclamation sites in any year depends on the amount of nitrogen required by the crop grown and expected yield. The following equation is provided in the regulation to calculate annual domestic septage application rates:

$$\text{Annual Application Rate (gallons per acre year)} = \frac{\text{lbs. N Required by Crop}}{0.0026^{*}}$$

* based on estimated available N (in mg/l) in domestic septage times a conversion factor

Frequency of Monitoring/Record Keeping/Reporting

When domestic septage pathogen reduction is achieved by pH adjustment with alkali materials, pH levels in every container (truck load) must be monitored. Although there are no formal reporting requirements, **the regulation does specify records that must be maintained by land appliers of domestic septage.**

The following table lists the information that must be recorded and saved by the domestic septage land applier. These records must be kept for five years following application. Sample forms for record keeping have been developed and are available from EPA. They are included in a guidance document entitled "Simplified Federal EPA Rules for Land Application of Domestic Septage to Non-Public Contact Sites."

For domestic septage placed in surface disposal sites, if vector attraction reduction is achieved by pH adjustment, monitoring of each container is required. Methane gas monitoring requirements for covered surface disposal sites is the same as for surface disposal of sewage sludge. Also, records must be kept by the owner/operator of the surface disposal site for at least 5 years concerning the surface disposal site management practices and vector attraction reduction practices employed.

REQUIRED RECORDS
1) Location of the application site (either the street address, or the longitude and latitude of the site).
2) Number of acres on which domestic septage is applied at each site.
3) Date and time of each application.
4) Nitrogen requirement for the crop or vegetation grown on each site during a 365-day period.
5) Gallons of domestic septage applied to each site.
6) Required certification statement.
7) Description of pathogen reduction measures used.
8) Description of vector attraction measures used.

Compliance

As with other provisions of the regulation, domestic septage appliers were to begin maintaining records of their activities on July 20, 1993 (within 150 days of publication of the

rule in the Federal Register). Compliance with other provisions must be achieved within one year of publication of the rule in the Federal Register if no construction of new pollution control facilities is required.

APPENDIX A

DEFINITION OF TERMS

APPENDIX A
Definition of Terms

Approved POTW Pretreatment Program: A program administered by a POTW that meets the criteria established in 40 CFR sections 403.8 and 403.9 and which has been approved by a Regional Administrator or State Director in accordance with 40 CFR Section 403.11 of the General Pretreatment Regulations (40 CFR Part 403).

Biochemical Oxygen Demand or BOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20? centigrade, usually expressed as a concentration (e.g., mg/l).

Categorical Industrial User: A source of Indirect Discharge that is required to comply with Categorical Pretreatment Standards.

Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Sections 307(b) and (c) of the Act (33 U.S.C. ' 1317) which apply to a specific category of users and which appear in 40 CFR chapter I, subchapter N, Parts 405-471.

CFR: Code of Federal Regulations

[City/DISTRICT]. [The City of _____] or **[the City Council of ___]; [OR NAME OF THE DISTRICT].**

Composite Sample: For sampling of hauled or trucked waste, a time composite sample shall generally be employed. The sample collection requirements shall be specified by the Control Authority. A time composite sample shall consist of a minimum of three (3) grab samples, composited into a single sample. The first sample shall be collected at the beginning of discharge, a second grab when the discharge is approximately 50% complete and a third sample when the discharge is approximately 90% complete. The POTW shall require the hauler to increase the number of grab samples if the POTW believes that the resultant sample is not representative.

Control Authority: The legal entity (NPDES Permittee) that is the Approved POTW Pretreatment Program.

Designated Disposal Station: An authorized site at which the User is allowed to discharge hauled or trucked waste.

Domestic-Only Wastes: 1) Wastewater from normal residential activities, included but are not limited to, wastewater from kitchen, bath, and laundry facilities, or 2) wastewater from the personal sanitary conveniences (toilets, showers, bathtubs, fountains, non-commercial sinks, and similar structures) of commercial, industrial or institutional buildings, provided that the wastewater exhibits characteristics which are similar to those of wastewater from normal residential activities. Specifically excluded from this definition is wastewater from commercial, industrial, or institutional laundries or food preparation facilities.

Domestic-Only Source: A Generator of Domestic-Only Waste.

Generator: The User who is the source of the waste that is delivered for disposal at the POTW by the Transporter.

Grab Sample: A single Adip and take@ sample, not to exceed 15 minutes collected at a predetermined sampling point(s) as indicted in the User=s Permit.

Grease Trap: Defined in the Uniform Plumbing Codes (UPC) to mean something designed to retain grease from 1 to a maximum of 4 fixtures. A Grease Trap is not appropriate for use on heated water (from a dishwasher) or in line to a waste disposal unit (garbage disposal, grinder, etc).

Grease Interceptor: Described by the Uniform Plumbing Codes to mean a tank (minimum of 750 gallons and water tight) to serve one or more fixtures and remotely located. Grease interceptors may capture wastewater from dishwashers, floor drains, pot and pan sinks, etc. Grease Interceptors are commonly required to be installed for restaurants, food service operations, grocery stores (deli and produce wastes), etc.

Grease Interceptor Waste: Waste produced from a Grease Interceptor.

Grease Interceptor Source: A Generator of Grease Interceptor Waste.

Hazardous Waste: Any liquid, semi-liquid, or solid waste (or combination of wastes) which because of its quantity, concentration, physical, chemical, or infectious characteristics may: (a) have any of the following characteristics: toxic, corrosive, an irritant, a strong sensitizer, flammable or combustible, explosive, or otherwise capable of causing substantial personal injury or illness; and/or (b) pose a substantial hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise improperly managed, or is identified or listed as a hazardous waste as defined by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal "Solid Waste Disposal Act,@ as amended by the "Resource Conservation and Recovery Act of 1976@ and as may be amended in the future.

Indirect Discharge or Discharge: The introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Clean Water Act. This includes any hauled or trucked wastes disposed of at a POTW. The source(s) of indirect discharge shall be the transporter and generator of the waste.

Industrial User or User: A source of Indirect Discharge.

Industrial Waste: Waste generated from commercial or industrial sources that is not defined herein as Domestic-Only Waste or Grease Interceptor Waste. These sources may include, but are not limited to grit trap waste, sand trap waste, chemical and portable toilet waste, wash water, cooling water, process wastewater etc.

Industrial Waste Source: A Generator of Industrial Waste.

Interference: A Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

> Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
>
> Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA) the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Individual Wastewater Disposal System: A septic tank, cesspool or similar self-contained receptacle or facility which collects and/or treats or otherwise disposes of domestic, residential wastewater and which is not connected to the wastewater treatment system of the POTW.

Instantaneous Maximum Allowable Discharge Limit. The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

Liquid Waste Hauler: Any Person that transports and disposes of Domestic-only, Grease Interceptor Wastes, and/or

Industrial wastes. Also see Transporter.

mg/l: milligrams per liter

Manifest: A written document required by the Control Authority that specifies, among other things, the source and nature of wastes to be discharged to the Designated Disposal Station.

Manifest System: A system consisting of a document that records information and data on the generation, transportation, and disposal of waste.

Pass Through: A Discharge which exits the POTW into a waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit: The formal written document issued by the Control Authority authorizing a person to discharge hauled waste at a POTW Designated Disposal Station.

Permittee: A Person granted a permit. Includes officers, employees, agents, representatives and others acting on behalf or for the benefit of the Permittee under the permit.

Person: An individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. The definition includes all Federal, state, and local governmental entities.

POTW Jurisdiction: The service area of the POTW and as otherwise established by the legal boundaries of the city, district, municipality etc. Many POTWs have extended their jurisdictional boundaries to include industrial users outside of typical boundaries. The POTWs legal authority covers all industrial users, whether connected to the sewerage system or transporting wastes to the POTW.

Publicly Owned Treatment Works or POTW: A treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

POTW Treatment Plant: That portion of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

Transporter: The User authorized by the Control Authority to pick-up, transport, and dispose of wastes at the POTW=s Designated Disposal Station. A source of Indirect Discharge.

TSS: Total Suspended Solids

Vehicle: A mobile device in which or by which liquid waste may be transported upon a public street or highway.

APPENDIX B

EXAMPLE INITIAL SURVEY FOR BUSINESSES THE PICK UP, TRANSPORT AND DISPOSED OF TRUCKED AND HAULED WASTES

SAMPLE SURVEY FOR WASTE HAULERS

1. Name of Business:
   Owner(s):

Address of Business:

Phone number of Business:
Name of contact at Business:

2. What type of wastes do you haul? Check all that apply.

__ Domestic septage from residences
__ Domestic septage from commercial/industrial
__ Waste from restaurant grease traps
__ Waste from sand traps from automotive service stations, car washes, truck maintenance facilities
__ Waste from pits, tanks, traps from other commercial sources not listed above.

List the type of waste:

__ Waste from groundwater cleanup activities (underground storage tank cleanups, groundwater remediation sites)

____ Gasoline Cleanups
____ Diesel Cleanups
___ Other. Specify:

__ Waste from industrial sources (fabrication, metal finishing, painting, etc) Specify:

__ Wastes from oil field activities
__ Wastes from military or other government activities
__ Other (specify):
__ Other (specify):

Attach pages as needed to provide the information on types of waste

3. Waste Hauling Information

# of Trucks operated by your business	Capacity in Gallons
_____	100-499
_____	499-1000
_____	1000-2000

_____	2000-3500
_____	3500 - 5000
_____	>5000

4. Estimate of Total number of loads **per week** for all trucks:

_____ To be disposed of (or requesting to be disposed of) at the POTW
_____ To be disposed of at sites other than the POTW

5. Estimate of total gallons picked up **per week** for all trucks.

_____ To be disposed of (or requesting to be disposed of) at the POTW
_____ To be disposed of at sites other than the POTW

6. Method of disposal of wastes (check all that apply):

__ Publicly-Owned Treatment Works (POTW), City or government owned wastewater treatment plant, city owned sewage treatment plant.
__ Land Application
__ State or County approved waste disposal site
__ Municipal Landfill
__ Disposal authorized by NPDES or Biosolids permit
__ Disposal pit
__ RCRA or Hazardous Waste Disposal Facility

__ Other (specify):
__ Other (specify):
__ Other (specify):

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner

Title

Date

Please complete and sign this survey and mail to:

YOUR POTW CONTACT AND ADDRESS

APPENDIX C

MODEL MANIFEST

SEE OTHER DOCUMENT ON THIS CD

APPENDIX D

MODEL HAULED WASTE ORDINANCE/RULES

SEE OTHER DOCUMENT ON THIS CD

APPENDIX E

MODEL HAULED WASTE PERMIT

SEE OTHER DOCUMENT ON THIS CD

APPENDIX F

STATE AND FEDERAL PRETREATMENT PROGRAM CONTACTS

Pretreatment Contacts for POTWs in Colorado, North Dakota, and Wyoming:

Curt McCormick, Pretreatment Coordinator
Phone: 303-312-6377
Fax: 303-312-6741
E-mail: mccormick.curt@epa.gov

Industrial Pretreatment Program (8P-W-P)
USEPA - Region 8
Suite 300
999 18th Street
Denver, Colorado 80202

Pretreatment Contact for POTWs in Montana:

Gwen Jacobs, Environmental Engineer
Phone: 406-449-5486 Fax: 406-449-5434
E-mail: jacobs.gwen@epa.gov

USEPA -Region 8 Montana Operations Office
Federal Office Building
Drawer 10096
301 South Park
Helena, Montana 59626-0026

Pretreatment Contact for POTWs in South Dakota:

Al Spangler, Natural Resources Engineer
Phone: 605-773-3351 Fax: 605-773-4068
E-mail: albert.spangler@state.sd.us

Department of Environmental and Natural Resources
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

Pretreatment Contact for POTWs in Utah:

Nathan Guinn, Pretreatment Coordinator
Phone: 801-538-6146 Fax: 801-538-6016
E-mail: nguinn@deq.state.ut.us

Department of Environmental Quality
Division of Water Quality
288 North 1460 West
Salt Lake City, Utah 84114-4870

APPENDIX G

STATE AND FEDERAL SEWAGE SLUDGE (BIOSOLIDS) PROGRAM CONTACTS

Pretreatment Contacts for POTWs in Colorado, North Dakota, South Dakota, and Wyoming:

Bob Brobst, Biosolids Coordinator
Phone: 303-312-6129
Fax: 303-312-7084
E-mail: brobst.bob@epa.gov

Biosolids Program (8P-W-P)
USEPA - Region 8
Suite 300
999 18th Street
Denver, Colorado 80202

Biosolids Contact for POTWs in Montana:

Gwen Jacobs, Environmental Engineer
Phone: 406-449-5486 Fax: 406-449-5434
E-mail: jacobs.gwen@epa.gov

USEPA -Region 8 Montana Operations Office
Federal Office Building
Drawer 10096
301 South Park
Helena, Montana 59626-0026

Biosolids Contact for POTWs in Utah:

Mark Schmitz, Biosolids Coordinator
Phone: 801-538-6097 Fax: 801-538-6016
E-mail: mschmitz@deq.state.ut.us

Department of Environmental Quality
Division of Water Quality
288 North 1460 West
Salt Lake City, Utah 84114-4870

APPENDIX H

RESPONSES TO COMMENTS RECEIVED BY REGION 8 POTWS. THESE RESPONSES ARE INTENDED FOR GUIDANCE AND FOR REGION 8 AND MAY BE MODIFIED OVER TIME.

1. *Why is it important that the POTW know what businesses have tanks connected to the sewer system and where that waste must be disposed of?*

   POTWs, with or without pretreatment programs, must prevent Pass-Through and Interference and prevent the introduction of pollutants that cause a violation of the general and specific prohibitions at 40 CFR Section 403.5. In addition, if trucked or hauled waste is discharged to the POTW, the POTW must control where such discharges occur. Grease Interceptors, sand traps, tanks, etc. that accumulate waste have the potential to cause problems if discharged to the POTW, including the sewer system. The POTW should ensure that once it identifies the businesses, the businesses are well aware of the proper and legal methods of disposal. The generator of wastes is responsible to ensure that it takes all necessary steps to ensure proper disposal of those wastes.

2. *Legal Authority should be included on all manifests so that if waste goes to the POTW it must be certified to be disposed of in compliance.*

   EPA agrees. The model manifest will include a reference to the POTW=s legal authority.

3. *Are these hauled waste programs going to be approved by EPA/State?*

   Where a POTW has a pretreatment program, the hauled waste program will be approved as a part of the pretreatment program. For POTWs without approved pretreatment programs, the hauled waste program should be adopted (codified) as required by local law to ensure that the POTW can enforce the requirements.

4. *The hauler should be required to specify the size of tank and the amount picked up from each tank.*

   Agreed. This has been identified as a problem with enforcing illegal dumping. The hauler must provide accurate information on the actual volume picked up.

5. *The EPA CID should be the listed contact for environmental crimes.*

This change has been made.

6. *The POTW is not staffed during the day all of the time. We have provided keys to haulers to make sure access is limited. We have a log book that they fill out. It would be expensive to have this POTW staffed for hauled waste. Is what we are doing acceptable?*

   Each POTW must implement a program that makes sense for the protection of the POTW and resources available to the POTW. The situation described above sounds appropriate with the inclusion of a manifest. The POTW needs to ensure that manifests are provided by the hauler and that a compliance monitoring and random manifest checking is critical to ensuring accurate reporting by the hauler. The POTW may figure out a way to make the person issued the keys signing a certification that the keys were not given or loaned to any other person.

7. *Please include a sample questionnaire for surveying haulers.*

   Some relevant questions for surveying waste haulers have been included in an Appendix to the Strategy.

8. *Is it necessary to issue a permit if wastes are manifested and tested and/or inspected?*

   Whether to issue a permit or not, is up to the POTW. Permits are the most easily enforced control mechanisms that POTW use. However, where the City Attorney determines that the enforceability of the POTWs legal authority will not be compromised, the POTW may develop an alternative control program that includes manifests.

9. *Discuss the term APOTWs Jurisdiction@ in Section 2. How do we track where waste loads are disposed of that are not delivered to our POTW?*

   The Strategy has been modified to more clearly define and explain these items. Where a hauler picks up waste from businesses within the POTWs jurisdiction, the manifest for these wastes includes a place for the transporter to fill out where the wastes were disposed of. If a waste hauler refuses to provide manifest for waste pickups outside of the POTW, the businesses would certainly want to provide these manifests to the hauler for completion. Businesses want to ensure that their wastes were properly disposed of

and take steps to ensure that they have written certification from the hauler picking up their wastes.

10. *It would be helpful to have a beginning list of flammable, explosive, corrosive and toxic chemicals included in this document (see section 4.2).*

Table 4.1 will be updated as specific examples of pollutants are generated.

11. *This seems to require POTWs to regulate materials not entering its sewer system. It appears that some POTWs may opt to not accept hauled waste at all, resulting in illegal discharges.*

This Strategy does require POTWs to control the discharge of hauled waste to the POTW. In addition, the Strategy requires that the POTW implement a program to ensure that businesses discharging to the POTW and also generating wastes that are not to be disposed of to the POTW, the POTW must have a mechanism (e.g. manifesting) in place to be able to determine where the wastes were disposed of. As has always been the case, POTWs may opt to quit accepting hauled waste. That has always been the local governments decision. Where the POTW does not accept hauled waste and the waste hauler opts for illegal disposal as a method for disposal of the waste, the Clean Water Act has explicit penalties specified for these knowing type violations. We anticipate that overall, the instances of illegal disposal of trucked and hauled waste will significantly decrease after full implementation of this strategy.

12. *These requirements should be adopted by State NPDES authorities. A manifesting system should be included for state licensing authorities.*

EPA agrees that State NPDES authorities should adopt adequate controls for the control of trucked and hauled waste. Most states rely on local and county health departments to adopt and implement controls on these types of businesses. However, rules for controlling this type of waste disposal are not available in many areas and enforcement of existing rules is spotty. EPA strongly supports the requirement for a manifesting program as a minimum requirement for any program designed to control trucked and hauled waste whether at the local, county, or state level. The General Pretreatment regulations recognized the need for POTWs to control trucked waste and all POTWs are expected to protect their POTWs, including the sewerage system, by implementing necessary controls to protect against violations of the General and

Specific Prohibitions specified at 40 CFR Section 403.5.

13. *These requirements may cost $20-30K annually (from a small non-pretreatment).*

EPA agrees that where a small, non-pretreatment POTW implements a full control program, the costs could be significant. However, careful review of this Strategy would clearly indicate that implementing the minimum requirements of this strategy would not result in a substantial resource commitment by the POTW. However, where a POTW has not implemented any program or is not knowledgeable of the businesses in its jurisdiction, the POTW may have to spend time up front to develop expertise. The primary function of this Strategy is too provide technical information to the POTW saving the POTW from having to spend the time to independently develop the same information. The POTW must balance what it wants to provide in a service versus the cost of that service.

14. *EPA should come up with BMPs and POTW, Hauler and Generator education.*

EPA hopes that this document provides the basis for POTW, hauler and generator education. BMPs for this type of business activity is much more difficult to define. POTWs generally develop BMPs for discharge and procedures for disposal, as well as, requirements for not mixing certain type of wastes. EPA would welcome commentors to provide examples of BMPs that are effective for this type of business.

15. *This is an elaborate program that EPA is applying to all POTWs, not just those with approved programs. It does not distinguish between POTW size. POTWs do not have problems with hauled waste because they lack a regulatory program. Rather, their problems are caused by illegal dumping and lack of training on hauled waste problems.*

EPA believes that problems associated with hauled waste may be more prevalent in small POTWs than the larger POTWs. The potential for upset at a small POTW is much greater than at large POTWs. In addition, larger POTWs are more likely to have a pretreatment program or existing legal authorities to control and prevent problems associated with trucked and hauled waste. However, EPA believes that all POTWs should be required to protect their POTWs regardless of size. EPA is not going to require smaller POTWs to do more than larger POTWs. This Strategy should assure that all POTWs have the basic protections in place to prevent problems. EPA believes that illegal dumping will decrease as the POTW gets more involved in waste

management at its POTW. Additionally, where illegal dumping is a problem at the POTW, the POTW must take steps to prevent this activity. Where a POTW does not have the expertise or knows of illegal dumping outside of its jurisdiction, this Strategy provides contact information for EPA=s Criminal Enforcement Program. The POTW should feel free to contact State or Federal authorities.

16. *Take into account the knowledge and resources of small POTWs (including dump stations).*

This Strategy is designed to provide technical information to POTWs. EPA hopes that the Strategy is written in such a manner as to be understandable and implementable by smaller POTWs. EPA believes that it has designed a program that takes into account the resources of small POTWs. EPA does not believe that expending zero resources will provide any assurances that a POTW is protected from potential impacts due to trucked and hauled waste.

17. *EPA has not provided small POTWs with training on accepting hauled waste in North Dakota. Provide tools and guidance.*

This Strategy is intended to be a resource for smaller POTWs. In addition, EPA intends to provide training in North Dakota over the next 2 years and making the training available to all POTWs. The State of North Dakota is also pursuing delegation of the pretreatment program and EPA will look to the State to provide technical assistance to POTWs on the acceptance of trucked and hauled waste. EPA will also provide training at its annual Regional Pretreatment Workshop. For information on information, the POTW may contact EPA or the states (see Appendix F).

18. *This may lead to an increase in unregulated, illegal dumping. The described program would lead to a considerable and improper burden for waste haulers. The requirements for permits, insurance, etc., would cost the haulers a lot of money if they go to several different POTWs.*

EPA believes that there will be a decrease in illegal dumping after implementation of a hauled waste program. EPA believes that illegal dumping is occurring, in part, due to a lack of education on what the proper requirements are. Where a company has a tendency towards illegal and knowing violations, closer oversight will identify these activities. EPA does not believe that requiring a basic level of recordkeeping and proper waste disposal is an improper burden on waste haulers. In fact, this Strategy is specifically designed to address an area of environmental protection that is already

required and is necessary to protect public health and the environment.

19. *The permit does not say how the hauler can mix loads. The POTW should be able to allow mixed loads. Avoids transport of partial loads.*

The POTW must determine whether it will accept mixed loads. The model permit does not prohibit mixed loads. The manifest does not prohibit mixed loads. However, where a transporter picks up industrial wastes, the POTW should evaluate carefully whether to allow mixed loads.

20. *The hauler cannot be responsible for ensuring the waste meets categorical limits, that is the generator=s responsibility.*

EPA agrees where categorical wastewater is disposed of at POTW, the generator of that wastewater is responsible for ensuring that the wastewater meets categorical standards. However, the waste hauler must certify that the waste they are dumping meets all applicable local, state, and federal standards. The waste hauler is not exempt from not knowing what they are hauling. Hauling wastewater, whether it is categorical, RCRA, CERCLA, or any other wastewater requires that businesses have a responsibility to know what they are hauling and disposing of. A reasonable business approach is not to ignore what is in their tank and plead ignorance. This highlights the need of the waste hauler to require the generator to provide information to both the hauler and the POTW prior to disposal of wastes. Where a POTW accepts industrial and/or categorical wastes by truck, the POTW should contact its state or Federal pretreatment authorities.

21. *POTWs should not be required to maintain tracking and record keeping for waste not discharged to the POTW. These are already permitted by the county*.

The Strategy clearly indicates the POTWs become knowledgeable about the businesses that generate and may discharge waste to the POTW. Any recordkeeping and tracking that a POTW does will be minimal. The benefits of working with the businesses and developing relationships with the community in the common interest of protecting the POTW, will be invaluable. Businesses that discharge to the POTW and generate wastes that need to be hauled off for disposal will need to periodically demonstrate that the wastes were not discharge to the POTW. This is the value of the manifest system. By requiring manifesting of where their wastes are being disposed of, a business is taking reasonable steps to ensure it=s wastes are being properly disposed of, providing a level of protection against liability of improper disposal. Many counties do not adequately control trucked and hauled waste or even have a program to

do so. Where the county does control these businesses, the POTW has the opportunity to work with the county to ensure that the information the county is collecting is adequate and followup is performed to ensure accuracy of information. A permit issued by a county generally is for the operation of the truck and not specifically designed to address wastes. The POTW is always responsible for impacts to its POTW. A POTW should take reasonable steps to ensure that an adequate program is being implemented and enforced if relying on another jurisdiction. The POTW may consider developing a MOA with the other legal authority.

22. *Clarify whether manifesting applies to all wastes or just non-domestic wastes.*

Manifests are designed to provide a written assurance and description of the type and volume of waste picked up by the waste hauler. This is in lieu of requiring chemical analyses prior to disposal, or nothing at all. POTWs generally prefer to accept manifests for all type of wastes rather than testing of the wastes or not having any assurance of what is really in the truck. Completing the model manifest form with the Strategy take about one minute per stop for the waste hauler. Because it contains multiple generator information sections, one manifest can be used a typical Afull load@.

23. *How do you set local limits for hauled waste vs discharged waste (to sewer system)? How would waste haulers meet local limits since their waste is more concentrated?*

When developing local limits for waste haulers, these limits are generally a mass allocation reserved for trucked and hauled waste. Region VIII will assist any POTW in these efforts. Because mass based local limits are applied as a mass allocation, the more concentrated nature of the waste is accounted for. The POTW must know how much trucked waste it receives.

24. *Can the City place controls on waste haulers not discharging to the City?*

Many POTWs have the authority to place requirements on businesses operating within the jurisdictional boundaries of the POTW. POTWs should notify businesses of the importance of proper waste disposal. These businesses may be required by the POTW to provided a completed manifest to the POTW. Waste haulers will generally complete a manifest for a customer rather than loose a customer. In addition, if a waste hauler disposes of some waste at the POTW, the waste hauler would be interested in maintaining an excellent working relationship with the POTW. It is always more efficient to have the waste hauler complete a manifest, rather than each customer. However, where a waste hauler disposes of waste at sites other than the POTW and refuses to provide the information, the POTW must require the affected businesses to provide the

information. This is the importance of meeting with affected business and clearly explaining the program. Most businesses will either go through the hassle of ensuring that the transporter provides a completed manifest or required information, or the business will find a new waste hauler.

25. *Is the POTW responsible for tracking waste from a local restaurant that has its grease trap pumped?*

The POTW should be able to document that wastes are not disposed in the sewerage system or treatment plant improperly. A manifest is the simplest way to achieve this. Grease interceptors are generally tied to the sewer and may be discharged to the sewerage system by unscrupulous businesses. In addition, wastes may be discharged illegally to storm sewers owned by the cities or districts, or even into ditches and waterways or hidden sewer manholes. The POTW would not track where all wastes are discharged, but should review manifests to ensure that wastes were not disposed of in a manner that would cause a violation of the POTWs NPDES permit. The POTW should also contact appropriate local, state and federal agencies if it suspects that a waste was improperly disposed of. The manifests and certifications assume that the signatories are not falsifying the information.

26. *What is the Federal authority to regulate hauled domestic waste?*

The General Pretreatment Regulations (40 CFR Part 403) and the Sewage Sludge regulations (40 CFR Part 503) have requirements the specifically apply to trucked and hauled waste. Specifically, the General Pretreatment regulations require a POTW to prevent the introduction of any pollutant which may cause Pass Through or Interference. 40 CFR Section 403.5 establishes specific prohibited discharge requirements for any person discharging trucked waste to a POTW. While a hauler may pick up domestic-only waste from a site, the waste when transported and discharged to a POTW becomes a regulated waste. The Sewage Sludge regulations have various requirements for domestic-only wastes that are disposed. A section has been added to the Strategy to provide a summary of requirements that waste haulers have to comply with.

27. *Does the hauled waste program need to be submitted for approval (and mods of an existing program) to EPA?*

Where a POTW has an approved pretreatment program, the hauled waste portion must be submitted for approval to the Approval Authority. Where a POTW does not have an approved pretreatment program, the POTW should ensure that all requirements (legal

authority) is adopted according to local codes and requirements.

28. *Identifying and collecting information on all businesses that have waste hauled off seems to be excessive. What will the POTW do with the information?*

Identification of businesses that have waste picked up is probably the most time consuming portion of the program. Most of this activity can be focused on businesses that general industrial type waste where the waste hauler agrees to implement a manifesting program. As indicated, the most efficient means of implementing a control program is to require waste haulers to complete a manifest for each waste picked up. POTWs generally have a sewer maintenance operations that are very knowledgeable of businesses. Instituting a program to control hauled waste is a preventative measure, not one that is reactive. Planning and a phase-in of a program is much more reasonable than mobilizing significant resources to try to react to a problem. Depending on the data collected by the POTW and the type of program it develops, the information it has collected would be used to design the most efficient program. This Strategy does not mandate how much or even what type of information needs to be collected. However, EPA has clarified what type of information a POTW may consider necessary to be collected.

29. *What information is needed for the POTW to demonstrate that pH<5 wastes from grease traps can be handled by the receiving station?*

The POTW should evaluate the receiving station materials and equipment to ensure that the materials can take intermittent, temporary, low pH excursions. This information must be documented. To date, Region VIII has not received information that has shown that designated disposal stations at POTWs have been impacted by grease interceptor generated low-pH wastes.

30. *Do POTWs have the authority to determine where a rejected load is disposed of. Is there a provision for tracking waste that's been rejected.*

If the POTW has rejected a load, then it would be reasonable for the POTW to require the hauler to provide information on where the waste went. The POTW should keep a copy of the manifest from the rejected load. Should a waste hauler

refuse to provide the information to the POTW, EPA will provide assistance to resolve the dispute and get the information.

31. It seems that where a waste hauler picks up was outside of the POTWs jurisdiction and disposes of it outside of the POTWs jurisdiction, there is little control.

That is correct. Other than county or state authorities, little authority exists in the regulation of these businesses. Where the businesses land apply domestic-only sewage, there are Federal reporting requirements (see Section 5.4). You are welcome to provide the business with these requirements or contact the appropriate person in Appendix G.