THE ENFORCEMENT MANAGEMENT SYSTEM

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

(CLEAN WATER ACT)

CHAPTER X: Setting Priorities for Addressing Discharges from Separate Sanitary Sewers

U.S. ENVIRONMENTAL PROTECTION AGENCY

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Setting Priorities for Addressing Discharges from Separate Sanitary Sewers

Discharges of raw or diluted sewage from separate sanitary sewers before treatment can cause significant public health and environmental problems. The exposure of the public to these discharges and the potential health and environmental impacts are the primary reasons EPA is developing this additional guidance on these discharges. This document provides a method of setting priorities for regulatory response, and serves as a supplement to the Enforcement Management System guidance (EMS, revised February 27, 1986). As such, this document addresses only those discharges which are in violation of the Clean Water Act. As a general rule, the discharges covered by this guidance constitute a subset of all discharges from separate sanitary sewer systems.

Legal Status

In the context of this document, a "discharge from a separate sanitary sewer system" (or "discharge") is defined as any wastewater (including that combined with rainfall induced infiltration/inflow) which is discharged from a separate sanitary sewer that reaches waters of the United States prior to treatment at a wastewater treatment plant. Some permits have specific requirements for these discharges, others have specific prohibitions under most circumstances, and still other permits are silent on the status of these discharges.

The legal status of any of these discharges is specifically related to the permit language and the circumstances under which the discharge occurs. Many permits authorize these discharges when there are no feasible alternatives, such as when there are circumstances beyond the control of the municipality (similar to the concepts in the bypass regulation at 40 CFR Part 122.41 (m)). Other permits allow these discharges when specific requirements are met, such as effluent limitations and monitoring/reporting.

Most permits require that any non-compliance including overflows be reported at the end of each month with the discharge monitoring report (DMR) submittal. As a minimum, permits generally require that overflow summaries include the date, time, duration, location, estimated volume, cause, as well as any observed environmental impacts, and what actions were taken or are being taken to address the overflow. Most permits also require that any non-compliance including overflows which may endanger health or the environment be reported within 24 hours, and in writing within five days. Examples of overflows which may endanger health or the environment include major line breaks, overflow events which result in fish kills or other significant harm, and overflow events which occur in environmentally sensitive areas.

For a person to be in violation of the Clean Water Act: 1) a person must own, operate, or have substantial control over the conveyance from which the discharge of pollutants occurs, 2) the discharge must be prohibited by a permit, be a violation of the permit language, or not be authorized by a permit, and 3) the discharge must reach waters of the United States. In addition, discharges that do not reach waters of the United States may nevertheless be in violation of Clean Water Act permit requirements, such as those requiring proper operation and maintenance (O&M), or may be in violation of state law.

Statement of Principles

The following six principles should be considered as EPA Regions and States set priorities for addressing violating discharges from separate sanitary sewers:

1. All discharges (wet weather or dry weather) which cause or contribute significantly to water quality or public health problems (such as a discharge to a public drinking water supply) should be addressed as soon as physically and financially possible. Other discharges may, if appropriate, be addressed in the context of watershed/basin plans (in conjunction with state or federal NPDES authorities).

2. Discharges which occur in high public use or public access areas and thus expose the public to discharges of raw sewage (i.e., discharges which occur in residential or business areas, near or within parks or recreation areas, etc.) should be addressed as soon as physically and financially possible.

3. Dry weather discharges should be addressed as soon as physically and financially possible.

4. Discharges due to inadequate operation and routine maintenance should be addressed as soon as possible. (Physical and financial considerations should be taken into account only in cases where overflow remedies are capital intensive.)

5. Discharges which could be addressed through a comprehensive preventive maintenance program or with minor capital investment should be addressed as soon as physically and financially possible.

6. With respect to principles 1 through 5 above, schedules of compliance which require significant capital investments should take into account the financial capabilities of the specific

municipality, as well as any procedures required by state and local law for publicly owned facilities in planning, design, bid, award, and construction. (See later sections on Schedules).

Causes of Sanitary Sewer Discharges

Discharges from separate sanitary sewers can be caused by a variety of factors including, but not limited to:

1. Inadequate O&M of the collection system. For example, failure to routinely clean out pipes, failure to properly seal or maintain manholes, failure to have regular maintenance of deteriorating sewer lines, failure to remedy poor construction, failure to design and implement a long term replacement or rehabilitation program for an aging system, failure to deal expeditiously with line blockages, or failure to maintain pump stations (including back-up power).

2. Inadequate capacity of the sewer system so that systems which experience increases in flow during storm events are unable to convey the sewage to the wastewater treatment plant. For example, allowing new development without modeling to determine the impact on downstream pipe capacity, insufficient allowance for extraneous flows in initial pipe design (e.g. unapproved connection of area drains, roof leaders, foundation drains), or overly optimistic Infiltration/Inflow reduction calculations.

3. Insufficient capacity at the wastewater treatment plant so that discharges from the collection system must occur on a regular basis to limit flows to the treatment plant. For example, basic plant designs which do not allow sufficient design capacity for storm flows.

4. Vandalism and/or facility or pipeline failures which occur independent of adequate O&M practices.

Applicable Guidance

For many years, EPA and the States have been working with municipalities to prevent discharges from separate sanitary sewer systems. The preferred method has been to use the general policy on responding to all violations of the Clean Water Act which is contained in the EMS guidance. Factors which are considered are the frequency, magnitude, and duration of the violations, the environmental/public health impacts, and the culpability of the violator. This guidance sets up a series of guiding principles for responding to separate sanitary sewer discharge violations,

and it supplements the current EMS.

Every EPA Region and State uses some form of this general enforcement response guidance as appropriate to the individual state processes and authorities. Under the guidance, various EPA Regions and States have taken a large number of formal enforcement actions over the past several years to address sanitary sewer discharge problems across the country. Responses have included administrative orders and/or civil judicial actions against larger municipalities to address sanitary sewer discharge problems, resulting in substantial injunctive relief in some cases.

As a result of EPA Region and State enforcement efforts, a number of municipalities have invested substantial resources in diagnostic evaluations and designing, staffing, and implementing O&M plans. Other municipalities have undertaken major rehabilitation efforts and/or new construction to prevent sanitary sewer discharges.

Priorities for Response

There are approximately 18,500 municipal separate sanitary sewage collection systems (serving a population of 135 million), all of which can, under certain circumstances, experience discharges. Given this fact, the Agency has developed a list of priorities in dealing with the broad spectrum of separate sanitary sewer discharges to ensure that the finite enforcement resources of EPA and the States are used in ways that result in maximum environmental and public health benefit. However, these priorities should be altered in a specific situation by the degree of health or environmental risks presented by the condition(s).

In the absence of site-specific information, all separate sanitary sewer discharges should be considered high risk because such discharges of raw sewage may present a serious public health and/or environmental threat. Accordingly, first priority should be given within categories (such as dry weather discharges and wet weather discharges) to those discharges which can be most quickly addressed. The priority scheme listed below takes this into account by first ensuring that municipalities are taking all necessary steps to properly operate and maintain their sewerage systems. Corrective action for basic O&M is typically accomplished in a short time, and can yield significant public health and environmental results.

Risk again becomes a determinant factor when conditions

warrant long term corrective action. The goal here should be to ensure that capital intensive, lengthy compliance projects are prioritized to derive maximum health and environmental gains.

The priorities for correcting separate sanitary sewer discharges are typically as follows:

1) Dry weather, O&M related: examples include lift stations or pumps that are not coordinated, a treatment plant that is not adjusted according to the influent flow, poor communication between field crews and management, infiltration/inflow, and/or pretreatment problems.

2) Dry weather, preventive maintenance related: examples include pumps that fail due to poor maintenance, improperly calibrated flow meters and remote monitoring equipment, insufficient maintenance staff, deteriorated pipes, and/or sewers that are not cleaned regularly.

3) Dry weather, capacity related: examples include an insufficient number or undersized pumps or lift stations, undersized pipes, and/or insufficient plant capacity.

4) Wet weather, O&M related: examples include excessive inflow and/or infiltration (such as from improperly sealed manhole covers), inadequate pretreatment program (i.e. excessive industrial connections without regard to line capacity), uncoordinated pump operations, treatment plant operation that is not adjusted according to the influent flow, poor coordination between field crews and management, illegal connections, and/or no coordination between weather forecast authorities and sewer system management.

5) Wet weather, preventive maintenance related: examples include poor pump maintenance leading to failure, improperly calibrated flow meters and remote monitoring equipment, insufficient maintenance staff, and/or sewers that are not cleaned regularly.

6) Wet weather, O&M minor capital improvement related: examples include the upgrading of monitoring equipment, pumps, or computer programs, and/or repair or replacement of broken manholes or collapsed pipes.

7) Wet weather capacity, quick solution related: examples include a known collection system segment that is a "bottleneck", pumps beyond repair in need of replacement, and/or need for additional crews or technical staff.

8) Wet weather, capacity, health impact related requiring long term corrective action: examples include frequent discharges to public recreational areas, shellfish beds, and/or poor pretreatment where the total flow is large.

9) Wet weather, capacity, sensitive area related requiring long term corrective action: examples include discharges to ecologically and environmentally sensitive areas, as defined by State or Federal government.

Selecting A Response

The appropriate regulatory response and permittee response for separate sanitary sewer discharges will depend on the specifics of each case. The regulatory response can be informal, formal, or some combination thereof. Typical regulatory responses include a phone call, Letter of Violation (LOV), Section 308 Information Request, Administrative Order (AO), Administrative Penalty Order (APO), and/or judicial action. The permittee response can range from providing any required information to low cost, non-capital or low capital improvements to more capital intensive discharge control plans.

The attached chart lists some categories of separate sanitary sewer noncompliance along with the range of response for each instance. The chart is intended as a guide. The responses listed on the chart are not to be considered mandatory responses in any given situation. EPA and the States should use the full range of regulatory response options (informal, formal, or some combination thereof) to ensure that the appropriate response or remedy is undertaken by the permittee or municipality. All regulatory responses should be in accordance with the concept of the EMS regarding orderly escalation of enforcement action.

Developing Compliance Schedules

A compliance schedule should allow adequate time for all phases of a sanitary sewer discharge control program, including development of an O&M plan, diagnostic evaluation of the collector system, construction, and enhanced O&M. Municipalities should be given a reasonable length of time to develop schedules so they can realistically assess their compliance needs, examine their financing alternatives, and work out reasonable schedules for achieving compliance. Nevertheless, timelines for schedules should be as short as physically and financially possible.

Short Term Schedules

In general, short term schedules would be appropriate for sanitary sewer discharges involving O&M problems, or where only minor capital expenses are needed to correct the problem. The schedule should have interim dates and a final compliance date incorporated in the administrative order or enforcement mechanism.

Comprehensive Discharge Control Schedules

Comprehensive discharge control schedules should be used where specific measures must be taken to correct the discharges, and the measures are complicated, costly, or require a significant period of time to implement. If appropriate, these schedules should include the use of temporary measures to address high impact problems, especially where a long term project is required to correct the sanitary sewer discharge violation.

When working with municipalities to develop comprehensive schedules, EPA Regions and States should be sensitive to their special problems and needs, including consideration of a municipality's financial picture. Factors that should be considered are the municipality's current bond rating, the amount of outstanding indebtedness, population and income information, grant eligibility and past grant experience, the presence or absence of user charges, and whether increased user charges would be an effective fund-raising mechanism, and a comparison of user charges with other municipalities of similar size and population.

Physical capability should be considered when schedules are developed. Schedules should include interim milestones and intermediate relief based on sound construction techniques and scheduling such as critical path method. Compliance schedules should be based on current sewer system physical inspection data adequate to design sanitary sewer discharge control facilities. Schedules should not normally require extraordinary measures such as overtime, short bidding times, or other accelerated building techniques. Where possible, schedule development should be completed according to normal municipal government contracting requirements.

Financial capability should also be considered in schedule development, including fiscally sound municipal financing techniques such as issuing revenue bonds, staging bond issuance, sequencing project starts, sensitivity to rate increase percentages over time.

Note: The intent of this guidance is to aid the Regions and States in setting priorities for enforcement actions based on limited resources and the need to provide a consistent level of response to violations. This does not represent final Agency action, but is intended solely as guidance. This guidance is not intended for use in pleading, or at hearing or trial. It does not create any rights, duties, obligations, or defenses, implied or otherwise, in any third parties. This guidance supplements the Agency's Enforcement Management System Guide (revised February 27, 1986).