



Thomas C. Jorling
Commissioner

October 1, 1993

MEMORANDUM

TO: Regional Water Engineers, Bureau Directors and
Section Chiefs

SUBJECT: Division of Water Technical and Operational
Guidance Series (1.6.3)
COMBINED SEWER OVERFLOW (CSO) CONTROL STRATEGY
(Originator: Mr. DiMura)

PURPOSE

The primary purpose of this TOGS is to provide guidance to Department staff to develop SPDES permit conditions, compliance and enforcement strategies, surveillance, and technical review that address the abatement of water quality problems due to combined sewer overflows. The goal is to eliminate all CSO related water quality impairments with special emphasis on controlling CSO related floatable materials. The existing best use of the State's receiving waters should be protected to the maximum extent practicable, with improvements in presently designated best use desirable. This should be accomplished by the elimination of CSO's and/or minimizing the frequency, duration and intensity of CSO events.

The secondary purpose of this TOGS is to have an EPA approved State CSO Control Strategy in accordance with and as required by the final National CSO Control Strategy issued on August 10, 1989. This TOGS will guide all water program activities related to CSO in lieu of the National Strategy. This CSO Control Strategy supersedes former TOGS 1.6.3 - COMBINED SEWER OVERFLOWS.

DISCUSSION

Most major municipal areas in New York State are served by a combination of sanitary sewers, separate storm sewers, and combined sanitary and storm sewers. Large municipal service areas typically contain combined sewers in older downtown urban areas with separate sanitary and storm sewers serving outlying tributary suburban residential and commercial areas. New York State has approximately 90 SPDES permits for CSOs. About 75 permits are for POTWs with CSOs and the remaining 15 permits for municipalities with CSOs only that are tributary to regional POTWs (see Tables 1 and 2). The total number of CSOs is approximately 1300 (See Table 3). This accumulation of CSOs represents about ten percent of the total national problem of combined sewer overflows.

The CSO problem is spread across every DEC Region except Region 1. However, the problems and abatement needs are dominated by New York City, Buffalo and Syracuse. The abatement program in Rochester is largely completed and has resulted in abatement of the majority of CSO related impacts in that area.

CSOs may contribute significantly to receiving water degradation. This is evidenced by the listing of CSO as a major or contributing cause to precluded, impaired, stressed or threatened best usage in many receiving waters state-wide (see Table 4). CSO related impacts are typically related to: human pathogens or indicator organisms which result in closed shellfish beds and permanent or temporary bathing beach closures; floating debris or slicks resulting in visual or aesthetic impairment; BOD or nutrients resulting in depressed dissolved oxygen and sedimentation or sludge beds which impact benthic biota and cause sediment oxygen demand.

The only current federal regulation for technology based effluent standards for municipal discharges is secondary treatment as defined by 40 CFR 133 (See TOGS 1.3.3). CSOs are not subject to these secondary treatment regulations. [Montgomery Environmental Coalition v. Costle, 646 F. 2d 568 (D.C. Cir. 1980)]. Thus, all technology based effluent limits for CSOs and CSO abatement facilities must be developed using Best Professional Judgement "BPJ" in accordance with 40 CFR 122.44(a). The minimum best management practices "BMPs" cited in Section F. of the following guidance are generally qualitative BPJ recommendations which should be followed by numeric limits when appropriate. Water quality - based limits will also be required in instances cited in Section G. of this TOGS.

Discharges from separate sanitary sewers with less than secondary treatment are prohibited. The occurrence of discharges from separate sanitary sewers are covered by the bypass provisions of the SPDES permit General Conditions. Abatement of these discharges shall be pursued with compliance/enforcement strategies specified in TOGS 1.4.2.

GUIDANCE

Guidance for implementation of the CSO Control Strategy is contained in Sections A through J presented below:

- A. DEFINITIONS
- B. IDENTIFICATION
- C. PRIORITIES (PERMITTING/ENFORCEMENT)
- D. PERMIT ISSUANCE

- E. COMPLIANCE SCHEDULES
- F. MINIMUM BEST MANAGEMENT PRACTICES (BMPs)
- G. ADDITIONAL CONTROL MEASURES
- H. MONITORING
- I. WATER QUALITY STANDARDS MODIFICATION
- J. FUNDING
- K. PERMIT APPLICATION FORMS

A. DEFINITIONS

SANITARY SEWER - A conduit intended to carry liquid and water carried wastes from residences, commercial buildings, industrial plants and institutions together with minor quantities of groundwater, storm and surface waters that are not admitted intentionally.

STORM SEWER - A sewer that is designated to carry only storm waters, surface runoff, street wash waters, and drainage.

COMBINED SEWER - A sewer that is designed as a sanitary sewer and a storm sewer.

COMBINED SEWER OVERFLOW - Flows from a combined sewer caused by inflow which is in excess of interceptor or regulator capacity that are discharged into receiving waters without going to the tributary publicly owned treatment works.

B. IDENTIFICATION

The NYSDEC SPDES Municipal Application Form A requires reporting all known discharge points including CSOs. The following information is required for each discharge point: Outfall No., type of overflow or bypass, facility location, USGS coordinates, receiving water, frequency of occurrence, average duration of discharge and description of treatment (if any).

When the permittee discovers a new CSO or seals or eliminates a CSO they shall promptly submit an application for modification of their SPDES permit. If a municipality without an effective SPDES permit discovers a CSO they must promptly apply for SPDES permit. If a new CSO is discovered by NYSDEC field staff or the public, NYSDEC shall initiate a SPDES permit modification to add the CSO to the permit. As such, NYSDEC will maintain and continuously update the inventory and

permitting of these discharges. If any CSO is known to discharge during dry weather, prompt enforcement action will be taken in accordance with Section E. below.

C. PRIORITIES (PERMITTING/ENFORCEMENT)

All SPDES permit activities will be prioritized in accordance with the Environmental Benefit Permit Strategy (EBPS) Permit Priority Ranking System. Permits that need to be modified to conform to this Strategy will be assigned a Factor Value of 10 for a "primary" CSO requirement and 5 for a "secondary" CSO requirement.

A primary CSO requirement pertains to CSO abatement activities aimed at controlling or eliminating CSOs that contribute to a water quality problem. This shall be determined by the Priority Water Problem List. Permittees with CSOs causing or contributing to a precluded, impaired, stressed or threatened use of the receiving water are in the "primary" category. These permits will require facility planning beyond the Best Management Practices BMPs required in Section F. below. In these cases, construction of abatement facilities is usually necessary. The current PWP sub-list of CSO permittees is listed in Table 4.

A secondary CSO requirement pertains to permits which must be modified to conform to other elements of this strategy including applicable BMPs and new or deleted outfalls. The primary or secondary Factor Value will be multiplied by the Environmental/Water Quality Enhancement Multiplier.

If the SPDES permit modification is likely to: 1) result in major improvement in water quality, 2) will eliminate water quality standards violations, 3) restore or upgrade best use or 4) remove the impairment, it will have a multiplier of 10. A SPDES permit modification that will result in a significant reduction of contribution to a water quality standard violation, use impairment, but not eliminate the water quality standard violation or use impairment will receive a multiplier of 5. Permit modifications that will have little or no effect on a standards violation or use impairment will receive a multiplier of 1.

example: *The CSO is listed in the PWP and requires major facility planning to address beach closures. This is a "primary" CSO problem receiving a Factor Value of 10. This CSO is listed as major contributor to use impairment in the PWP and abatement will result in reopening of a public beach. This receives a Water Quality Multiplier of 10 resulting in a priority score of 100 for CSO related permit conditions which is added into total priority score.*

For compliance and enforcement, instances of CSO that meet or exceed the criteria for identifying priorities of violations as delineated in TOGS 1.4.1 (the Division of Water's Integrated Compliance Strategy System) are to have integrated corrective action responses developed and implemented to remedy these situations. Such action may include a SPDES permit modification in accordance with the EBPS. Compliance and enforcement response guidance is provided in TOGS 1.4.2. Formal enforcement actions usually involve the use of consent orders that address corrective action schedules and penalty considerations.

D. PERMIT ISSUANCE

A single system-wide SPDES permit will be issued whenever possible (e.g. a county or regional authority sometimes acquires ownership of overflows from municipalities). Where practicable, when different parts of a single system are owned by more than one authority, NYSDEC will require joint implementation of elements of this strategy. CSO only permittees shall be required to cooperate with the POTW. The list of CSO only permits and tributary POTWs are contained in Table 2. The permits on this list will require cross-referencing.

E. COMPLIANCE SCHEDULES

Dry weather overflows from combined sewers are considered to be raw discharges and are therefore subject to the secondary treatment deadline of July 1, 1988. These cases must be resolved through formal enforcement that may include referral to the NYS Attorney General to issue a judicial order. A formal compliance schedule is to be contained in an administrative or judicial order. Penalty considerations are to be addressed. When abatement of wet weather discharges is deemed necessary in accordance with Sections F., G. & I. of this strategy, appropriate schedules of compliance will be included in the SPDES permit or an administrative consent order.

F. MINIMUM BEST MANAGEMENT PRACTICES (BMPs)

All SPDES permits for CSOs and POTWs with CSOs shall contain best management practice (BMPs) requirements. These BMPs are designed to implement operation and maintenance procedures, utilize the existing treatment facility and collection system to the maximum extent practicable, and implement sewer design and replacement so as to minimize the water quality impact of combined sewer overflows. When these measures are not sufficient to abate pollution so as to remove CSO as a contributing cause to a precluded, impaired, stressed, or threatened condition to the receiving water as

defined by the Priority Water Problem List (PWP), then additional control measures will be required as specified in Item G. below. The first six "best management practices" listed below are equivalent to the six "Minimum Technology Based Limitations" required by the EPA National CSO Control Strategy (1989). These BMPs are included in a model permit (Attachment 1) page which will be included in the SPDES permit in accordance with the Environmental Benefit Permit Strategy (EBPS).

1. CSO Maintenance/Inspection - The permittee shall develop a written maintenance and inspection program for all CSOs listed in the SPDES permit. This program shall include all regulators tributary to these CSOs, and shall be conducted during periods of both dry and wet weather. This is to insure that no discharges occur during dry weather and that the maximum amount of wet weather flow is conveyed to the host POTW for treatment. This program shall consist of inspections with required repair, cleaning and maintenance done as needed. Frequency of inspections will range from weekly to monthly depending upon size, number, and frequency of CSOs.

Reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. These reports shall be in a format approved by the Regional Office and submitted to the Region with the monthly operating report (Form 92-15-7).

2. Maximum Use of Collection System for Storage - The permittee shall optimize the collection system by operating and maintaining it to minimize the discharge of pollutants from CSOs. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs and convey the maximum amount of combined sewage to the treatment plant in accordance with Item 4 below.

This shall be accomplished by an evaluation of the hydraulic capacity of the system but should also include a continuous program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage.

In systems with potential for significant collection system storage, consideration should be given to in-line storage technologies such as

inflatable dams or sluice gates which can be controlled from the host POTW via telemetry.

3. Industrial Pretreatment - Existing Industrial Pretreatment Programs shall consider CSOs in the calculation of local limits for indirect discharges. Discharge of persistent toxics upstream of CSOs will be in accordance with guidance under (reserved - guidance is under development). For industrial operations characterized by use of batch discharge, consideration must be given to the feasibility of a schedule of discharge during conditions of no CSO. For industrial discharges characterized by continuous discharge, consideration must be given to the collection system capacity to maximize delivery of waste to the host POTW. Non-contact cooling water should be excluded from the combined system to the maximum extent practicable. Direct discharges of cooling water must apply for a SPDES permit.

To the maximum extent practicable, consideration must be given to maximize the capture of industrial waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the POTW. For new industry, these factors must be considered in siting with preference to service by areas not tributary to CSOs or having sufficient capacity to deliver all industrial wastewater during all conditions to the POTW. For further guidance on industrial discharges refer to **TOGS 1.3.8 - NEW DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS.**

4. Maximize Flow to POTW - Factors cited in Item 2. above shall also be considered in maximizing flow to the POTW. Maximum delivery to the POTW is particularly critical in treatment of "first-flush" flows. All POTWs serving CSOs must be capable of receiving the peak design hydraulic loading rates for all process units. For example, if a POTW with a SPDES permitted flow of 10 MGD which has a peaking factor of 2.0 for primary treatment and 1.5 for secondary process, the collection system and headworks must be capable of delivering these flows during wet weather. Any facility which cannot deliver maximum design flow for treatment, must submit a plan and schedule for accomplishing this requirement.

The POTW must maximize treatment during wet weather events. This shall be accomplished by having a wet weather operating plan containing procedures so as to operate unit processes to treat maximum flows while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. Such an operating plan shall employ techniques as recommended by [will obtain guidance from EPA or WEF]. The wet weather operations plan shall be submitted to the Regional Office for review and approval.

5. Prohibition of Dry Weather Overflow - Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Regional Office within 24 hours. A written report shall also be submitted within fourteen (14) days of the time the permittee becomes aware of the occurrence. Such reports shall contain the information listed in the General Conditions (Part II), Section 5(b) of the SPDES permit.

On some occasions, a dry weather bypass may be unavoidable in order to facilitate repairs. If the anticipated bypass is for a term of sixty days or less it may commence only after a written Emergency Authorization to Discharge Wastewater is issued by the Regional Water Engineer. On or before sixty days from the Department's original approval, the discharge must be terminated or the permittee must file an application for a modification to their SPDES permit. If the discharge does not have a SPDES permit an application for a new permit is required. Conditions for the operation of the bypass will be specified in this Authorization. An Emergency Authorization will be issued only after it has been demonstrated that no feasible alternative is available and that all possible steps to minimize the duration of the bypass will be taken. If the anticipated bypass is for a term exceeding sixty days the permittee shall apply for a SPDES permit and obtain an issued permit prior to commencing discharge. Specific guidance on bypasses is provided in **TOGS 1.6.2 - BYPASSES**.

6. Control of Floatable and Settleable Solids - The discharge of floating solids, oil and grease, or solids of sewage origin which cause deposition in the receiving waters, is a violation of the

Narrative Water Quality Standards contained in Part 703. As such, the permittee shall implement best management practices in order to eliminate or minimize the discharge of these substances. All of the measures cited in Items 1, 2, 4 & 5 above shall constitute approvable "BMPs" for mitigation of this problem. If aesthetic problems persist, the permittee should consider additional BMP's including but not limited to: street sweeping, litter control laws, installation of floatables traps in catch basins (such as hoods), booming and skimming of CSOs, and disposable netting on CSO outfalls. In cases of severe or excessive floatables generation, booming and skimming should be considered an interim measure prior to implementation of final control measures. Public education on harmful disposal practices of personal hygienic devices may also be necessary including but not limited to: public broadcast television, printed information inserts in sewer bills, or public health curricula in local schools.

If the items above do not control the discharge of floatable substances to prevent aesthetic impairments then additional control measures cited in Section G. below will be required.

7. Combined Sewer System Replacement - Replacement of combined sewers shall not be designed or constructed unless approved by NYSDEC. When replacement of a combined sewer is necessary it shall be replaced by separate sanitary and storm sewers to the greatest extent possible. These separate sanitary and storm sewers shall be designed and constructed simultaneously but without interconnections to maximum extent practicable. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions. For large combined sewer systems consideration must be given to development of a long range master plan for combined and separate sewer drainage areas. Expansion or extension of a combined sewer system will only be allowed when specified in the sewer master plan, and then only when absolutely necessary. It is recommended that the permittee demonstrate that urban run-off from a storm sewer would not result in appreciable decrease in pollution before approving new combined sewers.

example: For heavily developed or industrialized combined sewer area, the urban runoff can contain pollutant concentrations which would benefit from capture and treatment by the POTW rather than untreated discharge from a newly constructed separate storm sewer. In this case an abatement plan should be directed at maximum treatment rather than automatically focus on sewer separation.

8. Combined Sewer/Extension - Combined sewer/extension, when allowed should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of storm water shall be connected to any separate sanitary sewer in the collection system.

If separate sewers are to be extended from combined sewers, the municipality must demonstrate the ability of the sewerage system to convey, and the treatment plant to adequately treat, the increased dry-weather flows.

In addition, an assessment must be made the municipality of the effects of the increased flow of sanitary sewage on the strength of CSOs and their frequency of occurrence including the impacts upon best usage of the receiving water. This assessment should use techniques such as collection system and water quality modeling contained in the Water Environment Federation Manual of Practice FD-17 Combined Sewer Overflow Pollution Treatment.

In certain circumstances (e.g., Based upon the results of each assessment or when it is not practical to fully conduct such assessment. For example, in some cases new flows added might be so small in relation to the collection system capacity or receiving water assimilative capacity as to be below the margin of accuracy for establishing modeling techniques.), the Department may set restrictions which must be met by the municipality if a sewer extension is to be approved. These will be established to mitigate against more frequent overflow of the combined sewers due to the introduction of additional sanitary sewage flows. The restrictions can take a number of forms including, but not limited to, inflow removal and flow retention facilities.

9. Connection Prohibitions - If an actual or potential health hazard occurs such as sewage backing up into houses, or discharge of sewage from surcharging manholes during wet weather, the permittee shall prohibit any further connections upstream of the source of the sewer problem until such time as corrective actions have been taken to eliminate such problems. Specific guidance on connection prohibitions is provided in TOGS 1.4.7 - **SEWER MORATORIUM ON NEW CONNECTIONS TO POTWS.**
10. Capacity Assurance Program - *This section is reserved subject to promulgation of 6NYCRR Part 759 CAPACITY ASSURANCE PROGRAM.*
11. Septage and Hauled Waste - The discharge or release of septage or hauled waste upstream of a CSO is prohibited.
12. Control of Run-off - It is recommended that the impacts of run-off from new development in areas served by combined sewers or separate sewers be reduced by implementing practices and technologies included in the NYSDEC publication - **REDUCING THE IMPACTS OF STORM WATER RUNOFF FROM NEW DEVELOPMENT.**

G. **ADDITIONAL CONTROL MEASURES**

If the minimum Best Management Practices listed above will not remove the CSO from the PWP as a contributing factor to a precluded, impaired, stressed, or threatened best use of the receiving water, additional control measures shall be required. In general, this will require the development of a comprehensive facility plan that studies the collection system, treatment facilities and receiving water quality. The facility plan must identify final control measures and include an implementation schedule.

The facility plan shall address water quality impairments in the following order of pollution control:

1. Floatable materials (solids, oils & grease)
2. Disinfection (where applicable to meet coliform standards)
3. Settleable Solids (sedimentation in receiving water)
4. Nutrients
5. Toxics or metals - controlled to the extent that removals occur by addressing items 1. thru 5.

A compliance schedule for development of the facility plan and for implementation of recommended control measures shall be combined in the SPDES permit or an administrative consent order in accordance with Section E. of this Strategy.

When a facility plan is submitted that recommends abatement facilities, NYSDEC will develop SPDES effluent limits and monitoring in accordance with "Best Professional Judgement". These limits and monitoring shall be developed to ensure that the water quality and treatment objectives of the facility is achieved. The SPDES permit conditions can be either incorporated into a modification of an existing POTW permit or in a new SPDES permit.

The following are prototype permit conditions for an overflow retention facility in New York City designed so that all non-retained flow passes through the tank. These conditions are contained in Attachment 2:

1. Primary Design Consideration and Water Quality Objective - The primary design consideration for the design of the retention tank is volume. The basic objective appears to be mitigation of dissolved oxygen impacts in the receiving water. The volume of the tank is determined by the amount of BOD to be removed. This, is accomplished by capture of overflow and delivery to the WPCP for treatment.

Therefore, the standard of performance should be no discharge up to the design volume. This is accomplished by the SPECIAL CONDITIONS FOR OPERATION OF OVERFLOW RETENTION FACILITY.

2. Secondary Design Consideration and Water Quality Objective - The secondary design consideration for the retention tank is the level of treatment provided for flows which are not captured. The basic objective is mitigation of impacts of floatable materials, settleable solids, and coliform violations. Water quality standards are contained in 6NYCRR Part 701. The water quality standards for floatables and settleable solids are narrative in nature. The standards for fecal coliform are numeric.

Therefore, the control of floatables and settleables is accomplished by use of the surrogate parameters of floatable material, settleable solids and oil and grease. The permit limits are based on Best Professional Judgement (BPJ). The floatable material limit of none visible is a BPJ interpretation the narrative standard in Part 701. The settleable solids limit of 0.8ml/l is a BPJ figure traditionally used by DEC for primary

treatment. The oil and grease limit of 15mg/l is a BPJ limit used to prevent a "visible sheen".

The fecal coliform limits must meet a numeric ambient standard. This should be identified in the facility planning. Our BPJ limit for continuous discharge is a 30 day geometric mean of 200/100ml and a 7 day geometric mean of 400/100ml. Since overflow events are transient in nature and time variable, these limits are not appropriate. Therefore, the limit should be based on the prescribed reduction necessary to achieve the water quality standard. The key issue is the location at which the standard must be met.

3. Residual Chlorine - This is not a design consideration to remove an existing impact. However, it must be dealt with since most disinfection will be accomplished by chlorination. The recently revised Part 701 contains ambient standards for chlorine residual. The Department has developed guidance for continuous discharges to fresh water that provide for development of reasonable permit limits. Such guidance does not exist for marine waters or combined sewer overflows.

At this juncture the Division should develop a similar policy to address these areas. If DEC develops some reasonable criteria for chlorine decay and mixing zones, limits could be developed using the ongoing NYCDEC CSO modeling. Limits are left blank for future consideration.

4. Routine Monitoring and Reporting - The permittee must monitor and report the parameters necessary to quantify performance, measure compliance with effluent limits, and provide information on water quality. Monitoring for flow, BOD₅, TSS, Fecal Coliform, Settleable Solids, Oil and Grease, Residual Chlorine and Floatable Material fall under this category. Flow monitoring is necessary for process control and to quantify mass discharge rates. BOD₅ is the proper surrogate for ambient dissolved oxygen concerns. TSS, is a necessary indicator for the narrative water quality standard. Fecal Coliform, Settleable Solids, Oil & Grease, Residual Chlorine and Floatable Material are necessary to determine performance and compliance with quantitative permit limits.

The sample type and frequency for these parameters are based on BPJ. Routine monitoring for every overflow event is reasonable for a large retention facility with onsite staffing. The composite sampling should be based on grab samples due to the transient nature and varying duration of overflow events. Grab samples are appropriate for Residual Chlorine and Fecal Coliform.

The sampling for chlorine residual is set at once every four hours due to the process control demands of disinfection. This requirement can be changed to account for if a continuous analyzer is specified for construction.

Reporting for flow, BOD₅, and TSS is in total monthly flow and mass respectively. Again, the design and water quality objectives of CSO abatement render average values irrelevant.

5. Special Monitoring Requirements - The monitoring for these parameters is to acquire information on pollutant loadings salient to the ongoing activities and objectives of the Long Island Sound Study and NY-NJ Harbor Estuary Plan. The nitrogen series will augment the WPCP data on nutrient loadings. The data on metals is particularly important to meeting the water quality objectives of the recent issued SPDES permit conditions on toxics. This monitoring should also document pollutant removals incipient to the design and water quality objectives contained in items 1. and 2. above. The monitoring frequency of four events per year is based on BPJ.

H. MONITORING

Minimum monitoring of CSOs and regulators is defined in Section G. Item 1. The permittee shall also report all CSO events on the monthly operating report form 92-15-7. Instances of high flow with partial internal process bypass (i.e. secondary bypass) or headworks bypass must be noted.

When Facility Planning results in the construction of CSO abatement facilities, routine monitoring of wet weather events will be required in the SPDES permit.

Comprehensive hydraulic and pollutant monitoring of the entire CSO system is necessary as an integral part of facility planning conducted to address final control measures in Section G. This monitoring shall be coupled with receiving water monitoring and computer modeling of the CSO system and receiving water to identify abatement alternatives. Guidance on facility plan development, monitoring, and modeling is provided in the Water Environment Federation Manual of Practice FD-17 - Combined Sewer Overflow Pollution Abatement.

I. WATER QUALITY STANDARDS MODIFICATIONS

Current NYSDEC Water Quality Regulation 6NYCRR Parts 700-705 do not contain provisions for development of wet weather water quality standards. Part 702 contains two provisions which allow some flexibility for the establishment of effluent

limitations. Part 702.16(b)(2) allows NYSDEC to develop a "Modified Water Quality Limit" if achieving water quality based limit is clearly unreasonable. Establishment of a modified water quality limit that will not result in full compliance with ambient numeric standards should be based on the maximum capability of CSO abatement facilities prescribed in the NYSDEC approved CSO facility plan. "Modified Water Quality Limits" will be developed by the Regional Office or the Bureau of Wastewater Facilities Design in concert with the Bureau of Monitoring and Assessment.

The permittee may also apply for a variance for an effluent limitation based on aquatic standards or guidance values in accordance with 6NYCRR 702.17. In such cases the effluent limits must be proposed by the permittee and meet the criteria in 702.17. Current regulations do not include provisions that allow "modified water quality limits" or variances for effluent limits based on water quality standards or guidance values based on protection of human health.

In cases where the permittee proposes an abatement plan which will not comply with ambient standards for protection of human health, the permittee may pursue changes to the receiving water classification to match the best usage which is sustainable under the proposed abatement plan. The facility plan must contain all supporting documentation including water quality and economic analysis to support the reclassification. Such a facility plan should not be approved until the regulatory process for such a change is completed.

J. **FUNDING**

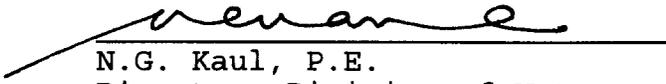
CSO abatement projects are eligible for low interest rate financing through the New York State Revolving Fund (SRF) for Water Pollution Control. Since the SRF is leveraging capitalization funds (federal and state match) to finance additional projects, financing of CSO projects will not be inhibited by the 20% limitation imposed by Section 201(g)(1) of the CWA which applies to projects in the amount of the federal capitalization grant.

CSO projects will be scored and ranked in accordance with the project scoring criteria contained in the appendix to the SRF regulations (6NYCRR649). CSOs that are subject to a SPDES permit schedule, are covered by a compliance schedule or administrative order, or are causing water quality impairments documented in the Priority Water Problem List will score quite well. Since there are significantly more funds available for the SRF program due to leveraging, CSO projects are able to compete favorably with other section 212 projects for SRF financing to the extent that such funds are available in any given year.

The 1990 Needs Survey showed a need of approximately \$6 billion in New York State for CSO abatement projects. The SRF has an estimated financing capability of approximately \$4 billion through the end of the decade. This would indicate that financing of CSO needs by the SRF will be limited by availability of funds.

K. **PERMIT APPLICATION FORMS**

All municipal wastewater discharges in New York State are required to apply for a SPDES permit in accordance with Article 17 of the Environmental Conservation Law (ECL). Municipal owner of POTWs, bypasses, raw discharges, combined sewer overflows, or any combination thereof are required to submit the NYSDEC SPDES Municipal Application Form A (see Section A. **IDENTIFICATION**).


N.G. Kaul, P.E.
Director, Division of Water

cc: Mr. Sullivan
Mr. Campbell
Ms. Allen
Ms. Chrimes
Regional Water Engineers for Environmental Quality

TABLE 1

LISTING OF NYSDEC MUNICIPAL SPDES PERMITS WITH CSOs

SPDES NUMBER	PERMITTEE	COUNTY	EXPIRE DATE
** REGION 2			
0026107	NEW YORK CITY	RICHMOND	09/29/93
0026115	NEW YORK CITY	QUEENS	09/29/93
0026131	NEW YORK CITY	NEW YORK	09/29/93
0026158	NEW YORK CITY	QUEENS	09/29/93
0026166	NEW YORK CITY	KINGS	09/29/93
0026174	NEW YORK CITY	RICHMOND	09/29/93
0026182	NEW YORK CITY	KINGS	09/29/93
0026191	NEW YORK CITY	BRONX	09/29/93
0026204	NEW YORK CITY	KINGS	09/29/93
0026212	NEW YORK CITY	KINGS	09/29/93
0026221	NEW YORK CITY	QUEENS	09/29/93
0026239	NEW YORK CITY	QUEENS	09/29/93
0026247	NEW YORK CITY	NEW YORK	09/29/93
0027073	NEW YORK CITY	KINGS	09/29/93
** REGION 3			
0029351	KINGSTON	CITY OF ULSTER	07/01/91
0026310	NEWBURGH	CITY OF ORANGE	09/01/90
0026255	POUGHKEEPSIE	CITY OF DUTCHESS	11/01/90
0031208	SAUGERTIES	VILLAGE OF ULSTER	09/01/94
0026689	WESTCHESTER COUNTY	WESTCHESTER	04/01/92
0026697	WESTCHESTER COUNTY	WESTCHESTER	12/01/89
0026701	WESTCHESTER COUNTY	WESTCHESTER	04/01/93
0026719	WESTCHESTER COUNTY	WESTCHESTER	12/01/89
** REGION 4			
0025747	ALBANY	CITY OF ALBANY	04/23/96
0026867	ALBANY COUNTY	ALBANY	02/01/92
0026875	ALBANY COUNTY	ALBANY	01/15/92
0020290	AMSTERDAM	CITY OF MONTGOMERY	05/01/93
0020389	CATSKILL	VILLAGE OF GREENE	04/01/96
0031046	COHOES	CITY OF ALBANY	02/01/93
0033545	COXSACKIE	VILLAGE OF GREENE	01/15/92
0033031	GREEN ISLAND	VILLAGE OF ALBANY	02/01/97
0024821	HOOSICK FALLS	VILLAGE OF RENSSELAER	01/01/97
0022039	HUDSON	CITY OF COLUMBIA	04/01/96
0102512	RAVENA	VILLAGE OF ALBANY	04/01/97
0026026	RENSSELAER	CITY OF RENSSELAER	08/01/96
0020516	SCHENECTADY	CITY OF SCHENECTADY	03/01/93
0205401	TROY	CITY OF RENSSELAER	08/01/91
0030899	WATERVLIET	CITY OF ALBANY	02/01/97
** REGION 5			
0029050	GLENS FALLS	CITY OF WARREN	02/01/94
0248941	MECHANICVILLE	CITY OF SARATOGA	06/01/97
0026018	PLATTSBURGH	CITY OF CLINTON	10/01/91
0021831	ROUSES POINT	VILLAGE OF CLINTON	08/01/91

TABLE 1

LISTING OF NYSDEC MUNICIPAL SPDES PERMITS WITH CSOs

SPDES NUMBER	PERMITTEE	COUNTY	EXPIRE DATE
0036706	TICONDEROGA	VILLAGE OF ESSEX	03/01/91
0029939	TUPPER LAKE	VILLAGE OF FRANKLIN	12/01/97
0183695	WASHINGTON COUNTY	WASHINGTON	03/01/91
0029173	WATERFORD	TOWN OF SARATOGA	02/01/97
** REGION 6			
0020494	BOONVILLE	VILLAGE OF ONEIDA	08/01/95
0027545	CLAYTON	VILLAGE OF JEFFERSON	06/01/95
0031461	DEXTER	VILLAGE OF JEFFERSON	09/01/96
0020117	GOUVERNEUR	VILLAGE OF ST LAWRENCE	08/01/95
0022403	LITTLE FALLS	CITY OF HERKIMER	05/01/97
0031194	MASSENA	VILLAGE OF ST LAWRENCE	08/01/95
0029831	OGDENSBURG	CITY OF ST LAWRENCE	11/01/96
0025780	ONEIDA COUNTY	ONEIDA	06/01/93
0020818	POTSDAM	VILLAGE OF ST LAWRENCE	08/01/95
0031429	UTICA	CITY OF ONEIDA	05/01/95
0025984	WATERTOWN	CITY OF JEFFERSON	09/01/92
0099091	WATERTOWN	TOWN OF JEFFERSON	06/01/94
** REGION 7			
0021903	AUBURN	CITY OF CAYUGA	09/01/91
0024406	BINGHAMTON	CITY OF BROOME	08/01/92
0024414	BINGHAMTON - JOHNSON CITY	BROOME	06/01/97
0029807	CANASTOTA	VILLAGE OF MADISON	11/01/91
0026301	FULTON	CITY OF OSWEGO	04/01/92
0023981	JOHNSON CITY	VILLAGE OF BROOME	01/01/96
0027081	ONONDAGA COUNTY	ONONDAGA	04/01/94
0030571	ONONDAGA COUNTY -	ONONDAGA	11/01/94
0029106	OSWEGO	CITY OF OSWEGO	10/01/96
0029114	OSWEGO	CITY OF OSWEGO	10/01/94
0029297	OWASCO	TOWN OF CAYUGA	08/01/90
0029262	OWEGO	VILLAGE OF TIOGA	09/01/95
** REGION 8			
0035742	CHEMUNG COUNTY	CHEMUNG	08/01/90
0021873	MEDINA	VILLAGE OF ORLEANS	08/01/97
0028339	MONROE COUNTY	MONROE	03/01/93
** REGION 9			
0025950	AMHERST	TOWN OF ERIE	08/01/90
0028410	BUFFALO SEWER AUTH. - "BSA"	ERIE	10/01/90
0203980	DEPEW	VILLAGE OF ERIE	06/01/94
0027961	DUNKIRK	CITY OF CHAUTAUQUA	11/01/96
0022136	ERIE COUNTY	ERIE	04/01/93
0091731	ERIE COUNTY	ERIE	09/01/92
0095401	ERIE COUNTY	ERIE	10/01/90
0110698	ERIE COUNTY	ERIE	06/01/93
0027693	GRAND ISLAND	TOWN OF ERIE	01/01/92

TABLE 1

LISTING OF NYSDEC MUNICIPAL SPDES PERMITS WITH CSOs

SPDES NUMBER	PERMITTEE	COUNTY	EXPIRE DATE
0027570	JAMESTOWN	CITY OF CHAUTAUQUA	01/01/97
0024481	LEWISTON	VILLAGE OF NIAGARA	02/01/96
0027766	LEWISTON MASTER SEW.IMP.AREA	NIAGARA	03/01/97
0027057	LOCKPORT	CITY OF NIAGARA	01/01/92
0026336	NIAGARA FALLS	CITY OF NIAGARA	11/01/87
0026280	NORTH TONAWANDA	CITY OF NIAGARA	04/01/92
0020508	SALAMANCA	CITY OF CATTARAUGUS	06/01/92
0020371	TONAWANDA	CITY OF ERIE	07/01/88
0026395	TONAWANDA	TOWN OF ERIE	11/01/93
0020621	WELLSVILLE	VILLAGE OF ALLEGANY	06/01/91
0203734	WEST SENECA	TOWN OF ERIE	03/01/94

TABLE 2

LISTING OF NYSDEC MUNICIPAL SPDES PERMITS FOR CSOs ONLY

PERMITTEE	SPDES PERMIT NUMBER	RECEIVING POTW	POTW'S SPDES PERMIT NUMBER
** REGION 4			
ALBANY	0025747	ALBANY COUNTY-NORTH	0026875
ALBANY	0025747	ALBANY COUNTY SOUTH	0026867
COHOES	0031046	ALBANY COUNTY-NORTH	0026875
GREEN ISLAND	0033031	ALBANY COUNTY-NORTH	0026875
RAVENA	0102512	COEYMANS-RAVENA STP	0022772
RENSSELAER	0026026	RENSSELAER COUNTY	0087981
TROY	0205401	RENSSELAER COUNTY	0087971
WATERVLIET	0030899	ALBANY COUNTY-NORTH	0026875
** REGION 5			
MECHANICVILLE	0248941	SARATOGA COUNTY	0028240
** REGION 6			
UTICA	0031429	ONEIDA COUNTY	0025780
** REGION 7			
BINGHAMTON	0024406	BINGHAMTON-JOHNSON CITY	0024414
JOHNSON CITY	0023981	BINGHAMTON-JOHNSON CITY	0024414
OWASCO	0029297	AUBURN	0021903
** REGION 9			
DEPEW	0203980	BUFFALO SEWER AUTHORITY	0028410
ERIE COUNTY	0091731	BUFFALO SEWER AUTHORITY	0028410
ERIE COUNTY	0110698	BUFFALO SEWER AUTHORITY	0028410
TONAWANDA	0020371	BUFFALO SEWER AUTHORITY	0028410
WEST SENECA	0203734	BUFFALO SEWER AUTHORITY	0028410

TABLE 3
COMBINED SEWER OVERFLOWS

I. D.	PERMITTEE	COUNTY	NUMBER OF OVERFLOWS
** REGION 2			
0026107	NEW YORK CITY	RICHMOND	31
0026115	NEW YORK CITY	QUEENS	4
0026131	NEW YORK CITY	NEW YORK	71
0026158	NEW YORK CITY	QUEENS	41
0026166	NEW YORK CITY	KINGS	21
0026174	NEW YORK CITY	RICHMOND	47
0026182	NEW YORK CITY	KINGS	5
0026191	NEW YORK CITY	BRONX	28
0026204	NEW YORK CITY	KINGS	77
0026212	NEW YORK CITY	KINGS	4
0026221	NEW YORK CITY	QUEENS	29
0026239	NEW YORK CITY	QUEENS	20
0026247	NEW YORK CITY	NEW YORK	43
0027073	NEW YORK CITY	KINGS	39
** Subtotal **			460
** REGION 3			
0029351	KINGSTON	CITY OF ULSTER	11
0026310	NEWBURGH	CITY OF ORANGE	12
0026255	POUGHKEEPSIE	CITY OF DUTCHESS	6
0031208	SAUGERTIES	VILLAGE OF ULSTER	1
0026689	WESTCHESTER COUNTY	WESTCHESTER	29
0026697	WESTCHESTER COUNTY	WESTCHESTER	2
0026701	WESTCHESTER COUNTY	WESTCHESTER	2
0026719	WESTCHESTER COUNTY	WESTCHESTER	2
** Subtotal **			65
** REGION 4			
0025747	ALBANY	CITY OF ALBANY	23
0026867	ALBANY COUNTY	ALBANY	0
0026875	ALBANY COUNTY	ALBANY	0
0020290	AMSTERDAM	CITY OF MONTGOMERY	5
0020389	CATSKILL	VILLAGE OF GREENE	6
0031046	COHOES	CITY OF ALBANY	16
0033545	COXSACKIE	VILLAGE OF GREENE	8
0033031	GREEN ISLAND	VILLAGE OF ALBANY	3
0024821	HOOSICK FALLS	VILLAGE OF RENSSELAER	2
0022039	HUDSON	CITY OF COLUMBIA	10
0102512	RAVENA	VILLAGE OF ALBANY	1
0026026	RENSSELAER	CITY OF RENSSELAER	8
0020516	SCHENECTADY	CITY OF SCHENECTADY	4
0205401	TROY	CITY OF RENSSELAER	49
0030899	WATERVLIET	CITY OF ALBANY	5
** Subtotal **			140

TABLE 3
COMBINED SEWER OVERFLOWS

I.D.	PERMITTEE	COUNTY	NUMBER OF OVERFLOWS
* REGION 5			
0029050	GLENS FALLS	CITY OF WARREN	1
0248941	MECHANICVILLE	CITY OF SARATOGA	3
0026018	PLATTSBURGH	CITY OF CLINTON	12
0021831	ROUSES POINT	VILLAGE OF CLINTON	1
0036706	TICONDEROGA	VILLAGE OF ESSEX	1
0029939	TUPPER LAKE	VILLAGE OF FRANKLIN	3
0183695	WASHINGTON COUNTY	WASHINGTON	7
0029173	WATERFORD	TOWN OF SARATOGA	4
* Subtotal **			32
* REGION 6			
0020494	BOONVILLE	VILLAGE OF ONEIDA	1
0027545	CLAYTON	VILLAGE OF JEFFERSON	2
0031461	DEXTER	VILLAGE OF JEFFERSON	1
0020117	GOUVERNEUR	VILLAGE OF ST LAWRENCE	1
0022403	LITTLE FALLS	CITY OF HERKIMER	3
0031194	MASSENA	VILLAGE OF ST LAWRENCE	6
0029831	OGDENSBURG	CITY OF ST LAWRENCE	17
0025780	ONEIDA COUNTY	ONEIDA	1
0020818	POTSDAM	VILLAGE OF ST LAWRENCE	1
0031429	UTICA	CITY OF ONEIDA	82
0025984	WATERTOWN	CITY OF JEFFERSON	20
0099091	WATERTOWN	TOWN OF JEFFERSON	1
* Subtotal **			136
* REGION 7			
0021903	AUBURN	CITY OF CAYUGA	8
0024406	BINGHAMTON	CITY OF BROOME	10
0024414	BINGHAMTON - JOHNSON CITY	BROOME	1
0029807	CANASTOTA	VILLAGE OF MADISON	7
0026301	FULTON	CITY OF OSWEGO	8
0023981	JOHNSON CITY	VILLAGE OF BROOME	2
0027081	ONONDAGA COUNTY	ONONDAGA	82
0030571	ONONDAGA COUNTY -	ONONDAGA	5
0029106	OSWEGO	CITY OF OSWEGO	1
0029114	OSWEGO	CITY OF OSWEGO	10
0029297	OWASCO	TOWN OF CAYUGA	3
0029262	OWEGO	VILLAGE OF TIOGA	8
** Subtotal **			145
** REGION 8			
0035742	CHEMUNG COUNTY	CHEMUNG	11
0021873	MEDINA	VILLAGE OF ORLEANS	13
0028339	MONROE COUNTY	MONROE	14

TABLE 3
COMBINED SEWER OVERFLOWS

I.D.	PERMITTEE	COUNTY	NUMBER OF OVERFLOWS
** Subtotal **			38
** REGION 9			
0025950	AMHERST	TOWN OF ERIE	14
0028410	BUFFALO SEWER AUTH. - "BSA"	ERIE	66
0203980	DEPEW	VILLAGE OF ERIE	6
0027961	DUNKIRK	CITY OF CHAUTAUQUA	1
0022136	ERIE COUNTY	ERIE	2
0091731	ERIE COUNTY	ERIE	4
0095401	ERIE COUNTY	ERIE	3
0110698	ERIE COUNTY	ERIE	1
0027693	GRAND ISLAND	TOWN OF ERIE	8
0027570	JAMESTOWN	CITY OF CHAUTAUQUA	13
0024481	LEWISTON	VILLAGE OF NIAGARA	1
0027766	LEWISTON MASTER SEW.IMP.AREA	NIAGARA	1
0027057	LOCKPORT	CITY OF NIAGARA	31
0026336	NIAGARA FALLS	CITY OF NIAGARA	9
0026280	NORTH TONAWANDA	CITY OF NIAGARA	6
0020508	SALAMANCA	CITY OF CATTARAUGUS	1
0020371	TONAWANDA	CITY OF ERIE	13
0026395	TONAWANDA	TOWN OF ERIE	107
0020621	WELLSVILLE	VILLAGE OF ALLEGANY	5
0203734	WEST SENECA	TOWN OF ERIE	3
** Subtotal **			295
*** Total ***			1311

TABLE 4

PWP SUB-LIST OF WATERS IMPACTED BY CSO

PERMIT NUMBER	PERMITTEE	FACILITY	WATERS AFFECTED	PRIORITY WATER PROBLEM LIST PRIORITY RATING	
** REGION 2					
0026239	NEW YORK CITY	TALLMAN ISLAND WPCF	COMBINED EFFECTS OF ALL NYC PLANTS		
0026174	NEW YORK CITY	OAKWOOD BEACH WPCF			
0026115	NEW YORK CITY	JAMAICA WPCF			
0026107	NEW YORK CITY	PORT RICHMOND WPCF			
0026191	NEW YORK CITY	HUNT'S POINT WPCF		ATLANTIC OCEAN &	HIGH - 8
0026182	NEW YORK CITY	COHEY ISLAND WPCF		LONG ISLAND SOUND - 29	MEDIUM - 16
0026212	NEW YORK CITY	26TH WARD WPCF		CREEKS, BAYS, STREAM	LOW - 5
0026204	NEW YORK CITY	NEWTOWN CREEK WPCF		SEGMENTS ETC.	
0026166	NEW YORK CITY	OWLS HEAD WPCF		-----	
0027073	NEW YORK CITY	RED HOOK WPCF		HUDSON RIVER - 2	HIGH - 1
0026131	NEW YORK CITY	WARD ISLAND WPCF	SEGMENTS	LOW - 1	
0026221	NEW YORK CITY	ROCKAWAY WPCF			
0026158	NEW YORK CITY	BOWERY BAY WPCF			
0026247	NEW YORK CITY	NORTH RIVER WPCF			
** REGION 3					
0029351	KINGSTON	STP	ROUNDOUT CREEK	LOW	
0026689	WESTCHESTER COUNTY	YONKERS JOINT STP	HUDSON RIVER	HIGH	
** REGION 7					
0021903	AUBURN	STP	OWASCO OUTLET	LOW	
0024406	BINGHAMTON	SEWER SYSTEM OVERFLOWS	SUSQUEHANNA RIVER	HIGH	
0024414	BINGHAMTON - JOHNSON CITY		SUSQUEHANNA RIVER	HIGH	
0029807	CANASTOTA	STP	CANASTOTA CREEK	MEDIUM	
0029807	CANASTOTA	STP	CANASERAGA CREEK	MEDIUM	
0023981	JOHNSON CITY	COMBINED SEWER OVERFLOWS	SUSQUEHANNA RIVER	HIGH	
0027081	ONONDAGA COUNTY	SYRACUSE METRO STP	HARBOR BROOK	MEDIUM	
0027081	ONONDAGA COUNTY	SYRACUSE METRO STP	LEY CREEK	MEDIUM	
0027081	ONONDAGA COUNTY	SYRACUSE METRO STP	ONONDAGA LAKE & OUTLET	HIGH	
0027081	ONONDAGA COUNTY	SYRACUSE METRO STP	ONONDAGA CREEK	MEDIUM	
** REGION 8					
0035742	CHEMUNG COUNTY	ELMIRA SEWER DISTRICT	CHEMUNG RIVER	LOW	
0028339	MONROE COUNTY	FRANK E. VAN LARE STP	GENESSEE RIVER	MEDIUM	
0028339	MONROE COUNTY	FRANK E. VAN LARE STP	IRONDEQUOIT BAY	MEDIUM	
** REGION 9					
0028410	BUFFALO SEWER AUTH - BSA	BIRD ISLAND STP	BUFFALO RIVER	LOW	
0028410	BUFFALO SEWER AUTH - BSA	BIRD ISLAND STP	SEAJAQUADA CREEK	LOW	

ATTACHMENT 1

MINIMUM REQUIREMENTS FOR SPDES PERMITS WITH COMBINED SEWER OVERFLOWS (CSOs)

1. Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated, and reported to the NYSDEC regional office within 24 hours. A written submission shall also be provided within fourteen (14) days of the time the permittee becomes aware of the occurrence. Such reports shall contain the information listed in the General Conditions (Part II) Section 5(b) of this permit.
2. The permittee shall optimize the sewer system by operating and maintaining it to minimize the discharge of pollutants from the combined sewer and pump station overflows and bypasses.
3. No new source of storm water shall be connected to any separate sanitary sewer in the collection system.
4. Extension of combined sewers shall not be authorized or designed unless approved by NYSDEC or its agents.
5. Sanitary and storm sewer extensions shall be designed and constructed simultaneously, but without interconnections, unless approved by NYSDEC or its agents.
6. When existing combined sewers are replaced or repaired, separate sanitary and storm sewers, including lateral connections, shall be designed and constructed simultaneously but without interconnections to the maximum extent practicable.
7. The permittee shall maximize flow to the _____ treatment facility during periods of wet weather.
8. The permittee shall conduct a maintenance and inspection program for all overflows listed on page(s) _____ of this permit. This is to insure that no discharges occur during dry weather and that the maximum amount of wet weather flow is conveyed to the _____ treatment facility for treatment.

This program shall consist of (weekly, bi-weekly, monthly) inspections with required repair, cleaning and maintenance done as needed. Reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. These reports shall be completed and submitted to NYSDEC with the monthly operating report.
9. If an actual or potential health hazard occurs such as sewage backing up into houses, or discharge of sewage from surcharging manholes during wet weather, the permittee shall prohibit any further connections upstream of the source of the problem until such time as corrective actions have been taken to eliminate such problems.
10. Capacity Assurance Program - RESERVED.
11. The discharge or release of septage or hauled waste upstream of a CSO is prohibited.
12. If the Department determines that the above measures are not sufficient to protect the best usage of the receiving water, then final control measures will be determined and an implementation schedule will be included in this permit.

SPDES No.: NY _____

Part 1, Page ___ of ___

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OVERFLOW RETENTION FACILITY

During the period beginning EDP and lasting until EDP + 5 Years the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

LIMITATIONS APPLY: All Year Seasonal from _____ to _____

Outfall Number _____

EFFLUENT LIMITATIONS

<u>Parameter</u>	<u>Time Frame</u>	<u>Limit</u>	<u>Unit</u>
Solids, Settleable ⁽²⁾	Daily Maximum	0.8	ml/l
Oil & Grease ⁽²⁾	Daily Maximum	15	mg/l
Chlorine, Total Residual ⁽²⁾	Daily Maximum	2.0	mg/l
Coliform Fecal ⁽³⁾	Daily Minimum	___ log base 10 reduction	No./100 ml
Floatable Material	Daily Maximum	None	Visual Observ.

ROUTINE MONITORING REQUIREMENTS

<u>Parameter</u>	<u>Frequency</u>	<u>Sample Type</u>	<u>Sample Location</u>	
			<u>Influent</u>	<u>Effluent</u>
Flow, MG ⁽¹⁾	Continuous	Recorder/Totalizer	X	X
BOD, 5-day mg/l	1/Event	Composite ⁽⁴⁾		X
Solids, Suspended mg/l	1/Event	Composite ⁽⁴⁾		X
Coliform, Fecal, o./100 ml	1/Event	Composite ⁽⁴⁾	X	X
Solids, Settleable ml/l	1/Event	Composite ⁽⁴⁾		X
Oil & Grease mg/l	1/Event	Composite ⁽⁴⁾		X
Chlorine, Total Residual, ml/	1/Event	Grab ⁽⁵⁾		X
Floatable Material	1/Event	Visual Observation ⁽⁶⁾		X

- (1) Flow shall be continuously recorded and totalized. Flow reported on the monthly operating report shall be the total flow discharge for the calendar month reporting period.
- (2) Daily Maximum shall be calculated based on the arithmetic mean of samples taken during any calendar day.
- (3) Effluent values must be ___ log base 10 less than Influent, calculated as the geometric mean of the composite of grab samples per event.
- (4) Composite sample shall be a composite of grab samples, one taken every hour.
- (5) Grab samples to be taken every four hours during each event.
- (6) Visual observation required every four hours during each event.

SPECIAL MONITORING REQUIREMENTS - OVERFLOW RETENTION FACILITY

The permittee shall sample Outfall 001 for the following parameters four times per year. All samples shall consist of a composite sample consisting of one grab sample taken every six hours for the duration of the overflow event. Results shall be reported in terms of concentration and total mass discharged during the sampling event.

Nitrogen, TKN (as N)	Copper, Total	Lead, Total
Ammonia, (as NH ₃)	Chromium, Total	Cadmium, Total
Nitrate, (as N)	Nickel, Total	Mercury, Total
Nitrate, (as N)	Zinc, Total	Arsenic, Total
		Cyanide

SPECIAL CONDITIONS FOR OPERATION OF OVERFLOW RETENTION FACILITY

1. The permittee shall not discharge from the retention tank (Outfall 001) unless the tank volume is full (i.e. _____ million gallons).
2. The facilities shall be operated in conjunction with the tributary sewer system, overflow regulators, pump stations and the host Water Pollution Control Plant (WPCP) to maximize pollutant removal.
3. The contents of the tank, (i.e. captured wastewater) shall not be delivered to the host WPCP at a rate which would exceed the peak daily or peak hourly design flow or loading as approved by the Department in the Combined Sewer Overflow Facilities Plan.
4. Flow shall not be delivered to the host WPCP at a rate that will cause an upset as defined by General Condition 11.3 of this permit.