June 6, 2003

Mr. Dale C. Glidden
Superintendent
Augusta Sanitary District
170 Hospital Street, R.F.D. #2, Box 7
Augusta, Maine 04330

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100013
Maine Waste Discharge License (WDL) Application #W002695-5M-H-R
Final Permit/License

Dear Dale:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. This permit/license replaces the National Pollutant Discharge Elimination System (NPDES) permit #ME0100013, last issued by the Environmental Protection Agency (EPA) on September 29, 1998. Please read the permit/license modification/renewal and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision*."

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this permitting action for several months however, you are required to report applicable test results for parameters required by this permitting action that do not appear on the DMR.

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.

cc: James Rogers, DEP/CMRO
John True, DEP/CMRO
Ted Lavery, USEPA

IN THE MATTER OF

AUGUSTA SANITARY DISTRICT	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
AUGUSTA, KENNEBEC COUNTY, MAINE	)	AND
ME01000013	)	WASTE DISCHARGE LICENSE
W002695-5M-H-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq. and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (the Department) has considered the application of the AUGUSTA SANITARY DISTRICT (ASD), with its supportive data, agency review comments, and other related material on file and finds the following facts:

APPLICATION SUMMARY

The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W002695-47-E-R which was issued on January 27, 1998 and expired on January 27, 2003. The 1/27/98 WDL authorized the discharge of up to a monthly average flow of 8.0 million gallons per day (MGD) of secondary treated sanitary waste waters and an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only from a municipal waste water treatment facility to the Kennebec River, Class C, in Augusta, Maine. The 1/27/98 WDL also authorized the discharge of untreated combined sanitary and storm water from twenty nine (29) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries in Augusta. It is noted the ASD has eliminated or consolidated six (6) CSO's since the issuance of the 1/27/98 licensing action. Under Phase II of the CSO abatement plan, an additional CSO (#040) was added due to the construction of a structure referred to as the West Side Consolidation Conduit (WSCC). There are currently twenty-four (24) remaining CSO outfalls that are permitted by this document.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) permit program and permit #ME0100013 (same as NPDES permit number) will utilized as the primary reference number.

PERMIT SUMMARY

This permitting action is similar to the 1/27/98 WDL action in that it is;

Secondary Treated Waste Waters:

1. Carrying forward the monthly average flow limit of 8.0 MGD.

2. Carrying forward the monthly average and weekly average technology based mass and concentration limits for carbonaceous biochemical oxygen demand ($CBOD_5$) and total suspended solids (TSS).

3. Carrying forward the reporting requirement for the daily maximum mass loadings for $CBOD_5$ and TSS.

4. Carrying forward the monthly average and daily maximum water quality based concentration limits for *E. coli* bacteria.

5. Carrying forward the daily maximum technology based concentration limit for total residual chlorine.

6. Carrying forward the surveillance and screening level whole effluent toxicity (WET) and chemical specific (priority pollutant) testing.

Primary Treated Waste Waters:

7. Carrying forward monthly average and or daily maximum reporting requirement for flow, surface overflow rates, number of discharge days per month and percent removal for CBOD5 and TSS.

8. Carrying forward the daily maximum water quality based limit for *E. coli* bacteria and the daily maximum technology based limit for total residual chlorine.

This permitting action is different than the 1/27/98 WDL action in that it is;

Secondary Treated Waste Waters:

9. Deleting the weekly average technology based limit of 0.1 ml/L for settleable solids.

10. Revising the daily maximum technology based pH range limit from 6.0 – 8.5 standard units to 6.0 – 9.0 standard units based on a new Department regulation.

11. Establishing a requirement for achieving a minimum of 85% removal for CBOD5 and TSS.

PERMIT SUMMARY (cont'd)

12. Requiring that surveillance level (1/Year) whole effluent toxicity (WET) testing and chemical specific testing to be conducted in a different calendar quarter of each year for the first four years of the permit.
13. Establishing a seasonal (June 1 – September 30) monitoring requirement for total phosphorus.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 17, 2003 (revised May 13, 2003) and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

Secondary and Primary Treated Waste Waters:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

    a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

    b. Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

    c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

    d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and

    e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharges (including the 24 CSO's) will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the AUGUSTA SANITARY DISTRICT, to discharge up to a monthly average flow of 8.0 million gallons per day (MGD) of secondary treated sanitary waste waters and an unspecified quantity of excess combined santiary and storm water receiving primary treatment only from a municipal waste water treatment facility and untreated combined sanitary and storm water from twenty four (24) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries, Class C and Class B, respectively, in Augusta. The discharges shall be subject to the attached conditions and all applicable standards and regulations:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____, 2003.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY:_____
Dawn Gallagher, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application January 15, 2003.

Date of application acceptance January 17, 2003.

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY
W26955mh 5/13/03

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through permit expiration, the permittee is authorized to discharge secondary treated waste waters to the Kennebec River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below.

SECONDARY TREATED WASTE WATERS - OUTFALL #001A

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average as specified	**Weekly Average** as specified	**Daily Maximum** as specified	**Monthly Average** as specified	**Weekly Average** as specified	**Daily Maximum** as specified	**Measurement Frequency** as specified	**Sample Type** as specified
Flow *[50050]*	8.0 MGD *[03]*	---	Report (MGD)	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Carbonaceous Biochemical Oxygen Demand (BOD_5) (1) *[80082]*	1,668 lbs/Day *[26]*	2,668 lbs/Day *[26]*	Report lbs/Day *[26]*	25 mg/L *[19]*	40 mg/L *[19]*	45 mg/L *[19]*	5/Week *[05/07]*	Composite *[24]*
Total Suspended Solids (TSS) (1) *[00530]*	2,002 lbs/Day *[26]*	3,002 lbs/Day *[26]*	Report lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	5/Week *[05/07]*	Composite *[24]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Day *[01/01]*	Grab *[GR]*
E. coli Bacteria (2) *[31633]*	---	---	---	142/100 ml (3) *[13]*	---	949/100 ml *[13]*	3/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine (2) *[50060]*	---	---	---	---	---	1.0 mg/L *[19]*	2/Day *[02/01]*	Grab *[GR]*
Total Phosphorus *[00665]* *(June 1 – September 30, 2003)* *(June 1 – September 30 each year thereafter)*	Report Report lbs/Day *[26]*	--- ---	Report Report lbs/Day *[26]*	Report Report mg/L *[19]*	--- ---	Report Report mg/L *[19]*	1/Week *[01/07]* 1/Month *[01/30]*	Composite *[24]* Composite *[24]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	1/Day *[01/01]*	Grab *[GR]*

SURVEILLANCE LEVEL TESTING – Beginning upon issuance and lasting through twelve months prior to permit expiration.

	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)(4)								
A-NOEL								
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TDA6C]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL								
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	Report% [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TBP6C]	---	---	---	---	---	Report% [23]	1/Year [01/YR]	Composite [24]
Chemical Specific(5) [50008]	---	---	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/ Grab [24/GR]

SCREENING LEVEL TESTING – Beginning twelve months prior to permit expiration.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET) (4)								
A-NOEL	---	---	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Pimephales promelas [TDA6C]								
C-NOEL	---	---	---	---	---	Report % [23]	1/Quarter [01/90]	Composite [24]
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Pimephales promelas [TBP6C]								
Chemical Specific(5) [50008]	---	---	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

During the period beginning the effective date of the permit and lasting through permit expiration, the permittee is authorized to bypass secondary treatment. Such discharges may only occur in response to wet weather events when the influent to the waste water treatment facility exceeds a flow rate of 8,333 gallons per minute (12.0 MGD) and in accordance with the most current approved Wet Weather Flow Management Plan. Discharges shall be monitored and reported as specified below.

PRIMARY TREATED WASTE WATERS - OUTFALL #001B (Internal Waste Stream)

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average as specified	Daily Maximum as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow, MGD *[50050]*	Report (Total MGD) *[03]*	Report (MGD) *[03]*	---	---	Continuous *[99/99]*	Recorder *[RC]*
Surface Loading Rate(6) *[50050]*	---	Report (gpd/sf) *[07]*	---	---	1/Discharge Day(7) *[01/DS]*	Calculate *[CA]*
Overflow Use, Occurrences(8) *[74062]*	---	---	Report (# of days) *[93]*	---	1/Discharge Day(7) *[01/DS]*	Record Total *[RT]*
CBOD5 *[80082]*	---	---	---	Report mg/L *[19]*	1/Discharge Day(7) *[01/DS]*	Composite
CBOD5 % Removal(9) *[81010]*	Report (%) *[23]*	---	---	---	1/Discharge Day(7) *[01/DS]*	Calculate *[24]*

TSS *[00530]*	---	---	---	Report mg/L *[19]*	1/Discharge Day(7) *[01/DS]*	Composite
TSS % Removal(9) *[81011]*	Report (%) *[23]*	---	---	---	1/Discharge Day(8) *[01/DS]*	Calculate *[24]*
E. coli Bacteria (2) *[31633]*	---	---	---	949/100 ml *[13]*	1/Discharge Day(8) *[01/DS]*	Grab *[GR]*
Total Residual Chlorine(2) *[50060]*	---	---	--	1.0 mg/L *[19]*	1/Discharge Day(8) *[01/DS]*	Grab *[GR]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Sampling Locations:

Influent sampling for $CBOD_5$ and TSS shall be sampled after the influent parshall flume. For the purposes of this permitting action, $CBOD_5$ and TSS samples taken at the influent parshall flume will serve as the influent values for calculating percent removals for both primary and secondary treated waste waters. See footnotes #1 and #9 below.

Effluent receiving secondary treatment (Outfall #001A) shall be sampled for $CBOD_5$, TSS, total residual chlorine, pH, settleable solids, *E. coli* bacteria, total phosphorus, whole effluent toxicity and chemical specific testing at the end of the chlorine contact chamber but prior to the wier on a year-round basis.

Effluent receiving primary treatment (Outfall #001B) shall be sampled for $CBOD_5$, TSS, *E. coli* bacteria and total residual chlorine at the end of the CSO disinfection/dechlorination chamber and prior to combining with the secondary treated effluent being discharged via Outfall #001A.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling – Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

1. **Percent removal** - The treatment facility shall maintain a minimum of 85 percent removal of both $CBOD_5$ and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "NODI-9" on the monthly Discharge Monitoring Report.

2. ***E. coli* bacteria and total residual chlorine (TRC)** - Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

3. ***E. coli* bacteria** – The monthly average limitation is a geometric mean limitation and shall be calculated and reported as such.

4. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic dilution of 2.3% and 0.48% respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

   Beginning upon issuance of this permit and lasting through twelve months prior to the expiration date of the permit, the permittee shall initiate surveillance level WET testing at a frequency of once per year on the water flea (*Ceriodaphnia dubia*) and on the fathead minnow (*Pimephales promelas)*. Tests shall be conducted in a different calendar quarter each year whereby a WET test is conducted in all four calendar quarters during the first four years of the permit. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing.

   Beginning twelve months prior to the expiration date of the permit, the permittee shall initiate screening level WET tests at a frequency of four per year (four consecutive calendar quarters). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) in two of the four calendar quarters and conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*) in the remaining two of the four calendar quarters. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

   a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002, EPA-821-R-02-013.

   b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

The permittee is also required to analyze the effluent for the parameters specified in the analytic chemistry on the form in Attachment A of this permit each and every time a WET test is performed.

5. **Priority pollutant** - (chemical specific testing pursuant to Department rule Chapter 530.5) testing are those parameters listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published a 40 CFR Part 122, Appendix D, Tables II and III.

   Beginning upon issuance of this permit and lasting through twelve months prior to the expiration date of the permit, surveillance level chemical specific testing shall be conducted at a frequency of once per year (any calendar quarter). **Beginning twelve months prior to the expiration date of the permit**, screening level chemical specific testing shall be conducted at a frequency of four per year (four consecutive calendar quarters). Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing**. For the purposes of DMR reporting, enter a "NODI-9" for *no testing done this monitoring period* or "1" for *yes, testing done this monitoring period*.**

   All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

6. **Surface Overflow Rate** – For the purposes of this permitting action is the average hourly rate per overflow occurrence in a discharge day. The permittee should provide this information to establish data on the effectiveness of peak flows receiving primary treatment only.

7. **Discharge Day** - A discharge day is defined as a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

8. **Overflow occurrence** – An overflow occurrence is defined as the period of time between initiation of flow from the primary bypass and ceasing discharge from the primary bypass. Overflow occurrences are reported in discharge days.

Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified. One composite sample for CBOD5 and total suspended solids shall be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period. Composite samples shall be flow proportioned from all intermittent overflows during that 24-hour period. Only one grab sample for *E. coli* bacteria and total residual chlorine is required to be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period and are only required if the event(s) occur between 7:00 AM and 7:00 PM.

Multiple intermittent overflow occurrences in one discharge day are reported as one overflow occurrence and are sampled according to the measurement frequency specified. One composite sample for CBOD5 and total suspended solids shall be collected per discharge day and shall be of flow proportioned from each intermittent overflow during that 24-hour period. Only one grab sample for E. coli bacteria and total residual chlorine is required to be collected per discharge day if a continuous overflow occurrence is greater than 60 minutes in duration or intermittent occurrences totaling 120 minutes during a 24-hour period.

For overflow occurrences exceeding one day in duration, sampling shall be performed each day of the event according to the measurement frequency specified. For example, if an overflow occurs for all or part of three discharge days, the permittee shall take three composite samples for CBOD5 and TSS, initiating samples at the start of the overflow and each subsequent discharge day thereafter and terminating samples at the end of the discharge day or the end of the overflow occurrence. Samples shall be flow proportioned.

9. C**BOD$_5$ and TSS** - The permittee shall analyze both the influent and effluent of the primary clarifiers for CBOD and TSS during the discharge of treated excess combined sewer waste waters from Outfall 001B and report the percent (%) removal on the monthly Discharge Monitoring Report (DMR). As an attachment to the DMR, the permittee shall report the individual CBOD and TSS test results used to calculate the percent removal rates reported.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. DISINFECTION

If chlorination is used as a means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized, followed by a dechlorination system if the total residual chlorine (TRC) cannot be met by dissipation in the detention tank. The TRC in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall be sufficient to leave a TRC concentration that will effectively reduce bacteria to levels below those specified in Special Condition A, *"Effluent Limitations and Monitoring Requirements"*, above.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a **Grade V**, certificate pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

E. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

F. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Central Maine Regional Office
Bureau of Land and Water Quality
Division of Compliance, Engineering & Technical Assistance
17 State House Station
Augusta, Maine 04333

Additional monthly reporting requires submitting (in electronic version preferably) *a "DEP-49-CSO Form For Use With Dedicated CSO Primary Clarifiers or DEP-49-CSO Form For Use With Non-Dedicated CSO Primary Clarifiers"* to:

CSO Coordinator
Department of Environmental Protection
Bureau of Land & Water Quality
Division of Engineering, Compliance and Technical Assistance
17 State House Station
Augusta, Maine 04333
e-mail: CSOCoordinator@state.me.us

G. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall 001A and twenty four (24) combined sewer overflow outfalls listed in Special Condition L, *Combined Sewer Overflows*, of this permit. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) (Bypass) of this permit.

H. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following.

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water; and

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

   (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

   (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

I. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. The permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

J. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

SPECIAL CONDITIONS

J. OPERATION & MAINTENANCE (O&M) PLAN (cont'd)

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

K. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive and introduce into the treatment process or solids handling stream up to **a maximum of 20,000 gallons per day** of septage, subject to the following terms and conditions:

1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.

2. At no time shall the addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the introduction of septage into the treatment process or solids handling stream shall be suspended until effluent quality can be maintained.

3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste water treatment influent and test results.

4. The addition of septage into the treatment process or solids handling stream shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of septage into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.

5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.

6. Holding tank waste water shall not be recorded as septage but should be reported in the treatment facility's influent flow.

7. During wet weather flows, no septage shall be added to the treatment process or solids handling facilities.

SPECIAL CONDITIONS

L. COMBINED SEWER OVERFLOWS (CSO's)

Pursuant to Chapter 570 of Department Rules, *Combined Sewer Overflow Abatement*, the permittee is authorized to discharge from the following locations of combined sewer overflows (CSO's) (stormwater and sanitary wastewater) subject to the conditions and requirements herein.

1. CSO locations

Outfall #	Location	Receiving Water & Class
003	Jackson Avenue	Kennedy Brook, Class B
005	Gage Street	Kennebec River, Class C
006	Freight Yard - Ryan Hill	Kennebec River, Class C
007	RR Station - Depot Lot	Kennebec River, Class C
008	Pump Station #3	Kennebec River, Class C
011	Corner Water & Bond St.	Kennebec River, Class C
012	Northern Ave. & Washington St.	Kennebec River, Class C
014	Bond Street	Bond Brook, Class B
015	Pump Station #1	Bond Brook, Class B
016	Pump Station #2	Bond Brook, Class B
017	North Belfast Avenue	Whitney Brook, Class B
019	Maple Street	Kennebec River, Class C
020	Willow St.- O'Connors Yard	Kennebec River, Class C
021	Cony Street	Kennebec River, Class C
022	Pump Station #4	Kennebec River, Class C
023	Eastern Avenue	Kennebec River, Class C
024	East Interceptor – AMHI	Kennebec River, Class C
025	Pump Station #6	Riggs Brook, Class B
026	Willow Street - Cottle's	Kennebec River, Class C
027	Laundry – AMHI	Kennebec River, Class C
029	Sewall St. Storm Drain	Kennebec River, Class C
031	Corner Wintrop & Commercial	Kennebec River, Class C
032	75 Stone Street	Kennebec River, Class C
040	West Side Consolidation Conduit	Kennebec River, Class C

SPECIAL CONDITIONS

2. Prohibited Discharges

   a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.

b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.

c) No discharges shall occur at flow rates below the applicable design capacities of the wastewater treatment facility, pumping stations or sewerage system.

3. Narrative Effluent Limitations

a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.

b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.

c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

4. CSO Master Plan (see Sections 2 & 3 of Chapter 570 Department Rules)

The permittee shall implement CSO control projects in accordance with an approved the CSO Master Plan entitled *Combined Sewer Overflow Facilities Plan, Augusta Sanitary District*, dated December 1993, (revised in September 1999) and the USEPA *Administrative Order For Compliance,Docket #97-69,* dated July 22, 1997**. The permittee shall submit an updated CSO Master Plan and abatement schedule to the Department for approval by December 31, 2006** ***(PCS Code 06699).*** The abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

SPECIAL CONDITIONS

L. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules)

The permittee shall implement and follow the Nine Minimum Control documentation as approved by EPA on May 29, 1997. Work preformed on the Nine Minimum Controls during the year shall be included in the annual CSO Progress Report (see below).

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

   The permittee shall conduct block testing or flow monitoring according to an approved *Compliance Monitoring Program* on all CSO points, as part of the CSO Master Plan. Annual flow volumes for all CSO locations shall be determined by actual flow monitoring, by estimation using a model such as EPA's Storm Water Management Model (SWMM) or by some other estimation technique approved by the Department.

   Results shall be submitted annually as part of the annual *CSO Progress Report* (see below), and shall include annual precipitation, CSO volumes (actual or estimated) and any block test data required. Any abnormalities during CSO monitoring shall also be reported. The results shall be reported on the Department form "*CSO Activity and Volumes"* (Attachment C of this permit) or similar format and submitted to the Department on diskette.

   CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

7. Additions of New Wastewater (see Section 8 Chapter 570 of Department Rules)

   Chapter 570 Section 8 lists requirements relating to any proposed addition of wastewater to the combined sewer system. Documentation of the new wastewater additions to the system and associated mitigating measures shall be included in the annual *CSO Progress Report* (see below). Reports must contain the volumes and characteristics of the wastewater added or authorized for addition and descriptions of the sewer system improvements and estimated effectiveness.

SPECIAL CONDITIONS

L. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

8. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules) **By March 1** ***(PCS Code 33101)***, of each year the permittee shall submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update, sewer extensions, and new commercial or industrial flows.

   The CSO Progress Reports shall be completed on a standard form entitled *"Annual CSO Progress Report"*, furnished by the Department, and submitted in electronic form, if possible, to the following address:

   CSO Coordinator
   Department of Environmental Protection
   Bureau of Land and Water Quality
   Division of Engineering, Compliance and Technical Assistance
   17 State House Station
   Augusta, Maine 04333
   e-mail: CSOCoordinator@state.me.us

9. Signs

   If not already installed, the permittee shall install and maintain an identification sign at each CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

   AUGUSTA SANITARY DISTRICT
   WET WEATHER
   SEWAGE DISCHARGE
   CSO # AND NAME

SPECIAL CONDITIONS

L. COMBINED SEWER OVERFLOWS (CSO's)(cont'd)

10. Definitions

For the purposes of this permitting action, the following terms are defined as follows:

a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.

b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.

c. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

M. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

N. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.

The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTW's MEPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

N. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

2. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at 40 CFR 403 and Department rule Chapter 528. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

   b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.

   c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.

   d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

   e. The permittee shall provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and Department rule Chapter 528(12)(I). The **annual report** shall be consistent with the format described in Attachment B of this permit **and shall be submitted no later than July 1st of each calendar year.** ***(PCS Code 61012)***

   f. The permittee must obtain approval from the Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and Department rule Chapter 528(18).

   g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR 405 et. seq.

N. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)

h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days of the effective date of this permit**, ***(PCS Code 50999)***, the permittee must provide the Department in writing, proposed changes (if applicable) to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and Department rule Chapter 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

ATTACHMENT B

MEPDES PERMIT REQUIREMENT
FOR
INDUSTRIAL PRETREATMENT ANNUAL REPORT

1. A narrative description (paragraph) of program effectiveness including the following:

- present and proposed changes to the program
- Funding
- Staffing
- Ordinances
- Regulations
- Statutory authority
- Other

Our pretreatment program is very effective as indicated by the SIU compliance rate and the reduction in pollutant loading to the POTW.

The program is adequately funded and staffed to provide for annual training and completion of our regulatory responsibilities.

No changes have been made, or are proposed, to the City of Augusta's Sewer Use Ordinance. The SUO provides adequate statutory authority to enforce in Local, State and Federal courts.

2. The date of the latest adoption of Local Limits and a statement as to whether the municipality is under a State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

If yes, Compliance Schedule; if no, schedule not needed.

_____'s Local Limits were last adopted (by local authority) on _____ and _____ is under no State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

3. A description of actions taken to reduce the incidence of violations by SIU's;

Example: Inspections – Notifications – Information/Education

4. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect Interference and Pass Through, specifying parameters and frequencies;

Example: Evaluations/investigations as a result of Monitoring, Sewer Inspections, and Evaluations, Influent – Effluent results, Spills, Dumps, Toxicity, or Unusual events.

5. A detailed description of all Interference and Pass Through that occurred during the past year; [statement of:

Event, Parameter, Violation, Cause, IU, POTW action, IU action, Result (see NOV #)].

_____ experienced no events of Interference or Pass- Through in this reporting period. If "Yes" then describe.

6. A thorough description of all investigations into Interference and Pass-Through during the past year;

A paragraph: Violation, Problem, Steps to resolve, Result.

(same as #5 or describe investigations.)

7. An updated list of all industrial users by category (40 CFR 403.8(f)(2)(i), indicating compliance or non- compliance with the following:

- baseline monitoring reporting requirements for newly promulgated industries
- compliance status reporting requirements for newly promulgated industries
- periodic (semi-annual) monitoring reporting requirements - categorical standards, and
- local limits

Example:

SIU	New Promulgated BMR/Compliance (Y/N) (Y/N)	Cat Limits Compliance (Y/N)	Local Limits Compliance (Y/N)	Semi-annual Reports Compliance (Y/N)

8. A summary of compliance and enforcement activities during the preceding year including a:

- list of SIU's inspected by the POTW (dates, compliance status),
- list of SIU's sampled by the POTW (dates, compliance status),

Example:

SIU Inspected Sampled/self Sampled/POTW Compliance Y/N

- list of SIU's to which compliance schedules were issued,
  [SIU] - Violation - Compliance - Schedule
  N/A or schedule plus Progress Reporting Dates]_____

- summary list of NOV's written to SIU's by name [statement],
- summary list of AO's written to SIU's by name [statement],
- list of criminal and/or civil suits filed by SIU,[usually a simple statement]
- list of penalty amounts obtained (by SIU) [a statement].

9. NOTE: Some items in numbers 9 & 10 may be combined in a chart, or charts. Be sure that any charts are logical, not cluttered, and don't contain an unreasonable amount of information. Any violations should be shown separately, in summary, for each item.

List of violating industries required to be published in a local newspaper (40 CFR 403.8(f)(2)(vii). [Statement]

10. A summary of all pollutant analytical results for:

- Influent [Annual average – show violations]
- Effluent [Annual average – show violations]
- Sludge [Annual average– show violations]
- Toxicity/Bioassay [Annual Average – show violations]

- comparison of influent sampling results versus threshold inhibitory concentrations for the POTW's wastewater treatment system.

- comparison of effluent sampling results versus water quality standards, considering the permitted dilution factor of the POTW.

NOTE: The sampling program shall be as described below OR any similar sampling program described in the MEPDES permit.

- At a minimum, annual sampling and analysis of/ the influent and effluent of the POTW's wastewater treatment plant shall be conducted on the following pollutants:

Example:

	Influent	Inhibition Effluent	AWC
			Acute Chronic
- Total Cadmium			
- Total Chromium			
- Total Copper			
- Total Lead			
- Total Mercury (Methods 1669 & 1631)			
- Total Nickel			
- Total Silver			
- Total Zinc			
- Total Cyanide			
- Total Arsenic			

The sampling program shall consist of one 24-hour flow-proportioned composite that is representative of the flow received by the POTW. The composite shall consist of accurately flow-proportioned grab samples taken over a discharge day if the samples are collected manually, or shall consist of a minimum of 48 accurately flow-proportioned samples if an automatic sampler is used. Sampling and preservation shall be according to 40 CFR part 136.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **April 17, 2003**
Revised: **May 13, 2003**

PERMIT NUMBER: **ME0100013**
LICENSE NUMBER: **W002695-5M-H-R**

NAME AND ADDRESS OF APPLICANT:

Augusta Sanitary District
170 Hospital Street, R.F.D. #2, Box 7
Augusta, Maine 04330

COUNTY: **Kennebec County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Jackson Street
Augusta, Maine 04330

RECEIVING WATER/CLASSIFICATION: **Kennebec River/Class C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Dale Glidden**
(207) 622-6184

1. APPLICATION SUMMARY

a. Application: The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W002695-47-E-R which was issued on January 27, 1998 and expired on January 27, 2003. The 1/27/98 WDL authorized the discharge of up to a monthly average flow of 8.0 million gallons per day (MGD) of secondary treated sanitary waste waters and an unspecified quantity of excess combined sanitary and storm water receiving primary treatment only from a municipal waste water treatment facility to the Kennebec River, Class C, in Augusta, Maine. The 1/27/98 WDL

1. APPLICATION SUMMARY

also authorized the discharge of untreated combined sanitary and storm water from twenty nine (29) combined sewer overflow (CSO) outfalls to the Kennebec River and its tributaries in Augusta. It is noted the ASD has eliminated or consolidated six (6) CSO's since the issuance of the 1/27/98 licensing action. Under Phase II of the CSO abatement plan, an additional CSO (#040) was added due to the construction of a structure referred to as the West Side Consolidation Conduit (WSCC). There are currently twenty-four (24) remaining CSO outfalls.

2. PERMIT SUMMARY

a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) permit program that will utilize a permit number of #ME0100013 (same as NPDES permit) as the primary reference number for the ASD's MEPDES permit. NPDES permit #ME0100013 last issued by the EPA on September 29, 1998 will be replaced by the final MEPDES permit upon issuance. Once replaced, all terms and conditions of the NPDES become null and void.

b. Terms and Conditions***:*** **This permitting action is similar to the 1/27/98 WDL action in that it is;**

Secondary Treated Waste Waters:

1. Carrying forward the monthly average flow limit of 8.0 MGD.

2. Carrying forward the monthly average and weekly average technology based mass and concentration limits for carbonaceous biochemical oxygen demand ($CBOD_5$) and total suspended solids (TSS).

3. Carrying forward the reporting requirement for the daily maximum mass loadings for $CBOD_5$ and TSS.

4. Carrying forward the monthly average and daily maximum water quality based concentration limits for *E. coli* bacteria.

5. Carrying forward the daily maximum technology based concentration limit for total residual chlorine.

6. Carrying forward the surveillance and screening level whole effluent toxicity (WET) and chemical specific (priority pollutant) testing.

2. PERMIT SUMMARY (cont'd)

Primary Treated Waste Waters:

7. Carrying forward monthly average and or daily maximum reporting requirement for flow, surface overflow rates, number of discharge days per month and percent removal for CBOD5 and TSS.

8. Carrying forward the daily maximum water quality based limit for E. coli bacteria and the daily maximum technology based limit for total residual chlorine

This permitting action is different than the 1/27/98 WDL action in that it is;

Secondary Treated Waste Waters:

9. Deleting the weekly average technology based limit of 0.1 ml/L for settleable solids.

10. Revising the daily maximum technology based pH range limit from 6.0 – 8.5 standard units to 6.0 – 9.0 standard units based on a new Department regulation.

11. Establishing a requirement for achieving a minimum of 85% removal for CBOD5 and TSS.

12. Requiring that surveillance level (1/Year) whole effluent toxicity (WET) testing and chemical specific testing to be conducted in a different calendar quarter of each year for the first four years of the permit.

13. Establishing a seasonal (June 1 – September 30) monitoring requirement for total phosphorus.

c. History: The most current relevant licensing permitting and other actions include the following:

January 27, 1998 – The Department issued WDL renewal #W002695-47-E-R for a five-year term.

Septemeber 29, 1998 – The USEPA issued NPDES permit renewal #ME0100013 for a four and one half year term. The permit expired on March 31, 2003.

December 1999 – The ASD completed a major upgrade of the their waste water treatment facility. For a more complete description of the improvements, see section 2(e) of this fact Sheet.

January 15, 2003 – The ASD submited an application to the Department to renew the WDL for the facility.

2. PERMIT SUMMARY (cont'd)

d. Source Description: - The Augusta Sanitary District was created in 1955. The waste water treatment facility receives sanitary waste water flows from approximately 6,600 residential, commercial and industrial users in the City of Augusta and the towns of Hallowell, Manchester, Winthrop and Monmouth. There are five major commercial/industrial users of the system that generate waste waters that include drinking water filter backwash, landfill leachate, septage processing and a meat processor.

The City's sewer collection system is approximately 105 miles in length, has 15 pump stations and is approximately 40% combined and 60% separated. Six of the pump stations have on-site back-up power. There are twenty four (24) remaining permitted CSO's associated with the collection system and are listed in Special Condition L, Combined Sewer Overflows (CSO), of this permitting action. The following CSO's have been abated to the one-year 24 hr storm event per the District's latest Long Term Control Plan dated September 1999.

003	Jackson Ave.	Kennedy Brook, Class B
005	Gage Street	Kennebec River, Class C
006	Freight Yard – Ryan Hill	Kennebec River, Class C
007	RR Station – Depot Lot	Kennebec River, Class C
031	Corner Winthrop & Commercial	Kennebec River, Class C

In addition, the discharge from the West Side Consolidation Conduit (WSCC) is designed not to activate until after the one-year storm as per the District's latest Long Term Control Plan dated September 1999. All flows from this structure are screened via a self cleaning six millimeter screen prior to discharge.

e. Waste Water Treatment: The ASD completed a major upgrade of the waste water treatment facility in 1999. The primary purpose of the upgrade was to abate discharges bypassing the waste water treatment facility by improving preliminary and primary treatment along with maximizing flow receiving secondary treatment and improving sludge handling and dewatering processes. The major additions and or improvements of the upgrade included; 1) improvements in the two mechanically cleaned screens and screening compactors, 2) improvements in the two aerated grit chambers and blowers, 3) installation of a flow distribution structure for primary clarification isolation, bypass and hydraulic flow splitting, 4) installation of a primary bypass metering structure, 5) primary clarifier weir and scum baffle replacement 6) installation of a flow distribution structure for maximizing flow to secondary treatment, 7) installation of a high-rate disinfection and dechlorination structure for the secondary bypass, 8) conversion to sodium hypochlorite for disinfection on the secondary treated

2. PERMIT SUMMARY (cont'd)

waste stream, 9) improvements to the gravity belt thickener and the two two-meter belt filter presses 10) installation of new polymer systems, 11) improvements to the aerated sludge holding tanks and 12) improvements to the odor control system.

Secondary Treatment

With the improvements/additions described above, the ASD facility is now capable of providing a secondary level of treatment of up to 8.0 MGD as a monthly average, 12.0 MGD as a daily maximum and 16.7 MGD as a peak hourly flow. Flows are conveyed into the waste water treatment facility via two interceptor pipes measuring 42" in diameter each and are capable of delivering up to 29 MGD to the treatment facility. During dry weather flows, a secondary level of treatment is provided via two mechanical screens, two aerated grit chambers, three primary settling tanks (two 55-foot diameter and one 80-foot diameter), two aeration tanks (pure oxygen reactor tanks), three 80-foot diameter secondary clarifiers and two chlorine contact chambers where sodium hypochlorite is utilized as a disinfectant. Flows are measured via two-36" parshall flumes, one located after the grit chamber but before the flow distribution structure #1 and another located just prior to the chlorine contact chamber. It is noted the Operations & Maintenance Plan for the treatment facility was last updated in March of calendar year 2002.

Treated effluent is discharged to the Kennebec River via a ductile iron pipe measuring 36" in diameter without a diffuser. The pipe extends approximately 100 feet out into the main channel of the river where there is approximately 7½ feet of water over the crown of the pipe at mean low water. It is noted the Kennebec River is tidal at the point of discharge but is dominated by freshwater from upstream. See Attachment A of this Fact Sheet for a schematic of the treatment facility.

Wet Weather Flows (Primary Treatment – Phase I)

During wet weather events, flows up to 36 MGD (29 MGD from the two 42"incerceptor pipes plus up to 7.0 MGD from the West Side Consolidation Conduit) pass through the preliminary and primary treatment component of the plant (screening, grit removal, primary clarification). At flow distribution structure #2, flows up to at least 12 MGD are conveyed to the secondary treatment process and the balance of the flow up to 24 MGD is conveyed to a dedicated high-rate disinfection system with dechlorination capabilities. After disinfection, the primary treated flow is combined with the secondary treated flow (after the secondary treatment disinfection chamber) prior to discharge to the river via Outfall #001A. Flows receiving primary treatment are measured by way of a flow meter located after the disinfection chamber. It is noted the Wet Weather Flow Management Plan for the facility was last updated and approved by the Department in January of calendar year 2003. See Attachment A of this fact Sheet for a schematic of the facility.

2. PERMIT SUMMARY (cont'd)

Wet Weather Flows (Phase II)

In addition to the improvements/additions completed in the 1999 upgrade, the ASD has recently (January 2003) completed the construction of a structure referred to as the West Side Consolidation Conduit (WSCC). The WSCC is a precast structure measuring 3,700 feet long, 10 feet wide and 6 feet high with a volume of 1.5 million gallons. The purpose of the structure to intercept, capture and transport peak flows of up to a flow rate of 46,527 gallons per minute (67 MGD) and has been designed to accept up to an additional flow rate of 13,890 to 22,200 gallons per minute (20 to 32 MGD) projected from future phases in the Combined Sewer Overflow Facilities Plan. The WSCC provides both in-line and off-line treatment/storage capabilities through the maximizing the storage volume of the existing West Side Interceptor. The WSCC does have an emeregency overflow structure built into it and is being regulated in this permitting action as Outfall #040 in Special Condition L, *Combined Sewer Overflows (CSO's)*.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, Maine law, 38 M.R.S.A., Section 420, and Department Regulation Chapter 530.5, *Surface Water Toxics Control Program* requires the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Water Act.

4. RECEIVING WATER STANDARDS

Maine law, 38 M.R.S.A., Section 467(4)(A)(10) indicates the Kennebec River at the point of discharge is classified as a Class C waterway. Maine law, 38 M.R.S.A., Section 465(4) describes standards for classification of Class C waters.

5. RECEIVING WATER CONDITIONS

Table 4-B1, *Rivers and Streams Impaired By Pollutants, Pollution Control Requirements Reasonably Expected to Result in Attainment* of a document entitled, The State of Maine, Department of Environmental Protection, 2002 Itegrated Water Quality Monitoring and Assessment Report, published by the Department, indicates the designated use of fishing (consumption) for a 30.5-mile segment of the Kennebec River (Father Curran Bridge in Augusta to the Chops in Merrymeeting Bay) is impaired due to a fish consumption advisory for mercury and dioxin.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Secondary Treated Effluent

a. Flow: The monthly average flow limitation of 8.0 MGD in the previous licensing action is being carried forward in this permitting action and is considered to be representative of the monthly average design flow for the waste water treatment facility.

b. Dilution Factors - The Department established applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530.5, *Surface Water Toxics Control Program*, October 1994. With a WDL flow limit of 8.0 MGD the dilution factors are as follows:

¼Acute[(1)]: 1Q10 = 520 cfs $\frac{(520\ cfs)(0.6464) + (8.0\ MGD)}{(8.0\ MGD)} = 43:1$

Acute: 1Q10 = 2,079 cfs[(2)] $\frac{(2{,}079\ cfs)(0.6464) + (8.0\ MGD)}{(8.0\ MGD)} = 169:1$

Chronic: 7Q10 =2,538 cfs[(2)] $\frac{(2{,}538\ cfs)(0.6464) + (8.0\ MGD)}{(8.0\ MGD)} = 206:1$

Harmonic Mean: = 5,618 cfs $\frac{(5{,}618\ cfs)(0.6464) + (8.0\ MGD)}{(8.0\ MGD)} = 455:1$

Footnotes

(1) Chapter 530.5 (D)(4)(a) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. Based on information provided by the ASD as to the configuration and location of the outfall pipe and instream hydrology information collected by the Department in calendar year 1999, the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water, therefore the default stream flow of ¼ of the 1Q10 is applicable in acute statistical evaluations pursuant to Chapter 530.5.

(2) It is noted the dilution factors are slightly lower than the dilution factors calculated in the previous licensing action as the 7Q10 and 1Q10 critical low flow values were recalculated in calendar year 2000 during the Department's efforts to update the water quality model for the Kennebec River.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Secondary Treated Effluent

c. Carbonaceous Biochemical Oxygen Demand ($CBOD_5$): The previous licensing action established monthly average and weekly average mass limits for CBOD5 and monthly average, weekly average and daily maximum concentration limits for CBOD5 that are being carried forward in this permitting action. Federal regulations, found at 40 CFR, Part 133 establishes secondary treatment requirements for BOD_5. BOD_5 is the measure of the total oxygen demand from both nitrogenous and carbonaceous components in a waste water. As a rule, the Department establishes monthly average, weekly average and daily maximum BOD_5 limitations for facilities that do not nitrify or complete the nitrification process through internal process control measures. Because the ASD has a high rate activated sludge process, the treatment process does not give the operator(s) of the facility the flexibility to control the nitrification process once it begins. Federal regulation 40 CFR, Part 133 authorizes the permitting authority to substitute $CBOD_5$ limitations for BOD_5 in permits for facilities where the nitrification process is incomplete.

This permitting action carries forward the monthly and weekly average $CBOD_5$ concentration limitations of 25 mg/L and 40 mg/L pursuant to federal regulation, 40 CFR, Part 133. The daily maximum $CBOD_5$ concentration limit of 45 mg/L is also being carried forward from the previous licensing action and is considered a Department best practicable treatment (BPT) limitation.

As for mass limitations, the previous licensing action established monthly average and weekly average limitations based on a monthly average limit of 8.0 MGD that are being carried forward in this permitting action. The limitations were calculated as follows:

Monthly average: (8.0 MGD)(8.34)(25 mg/L) = 1,668 lbs/day
Weekly average: (8.0 MGD)(8.34)(40 mg/L) = 2,668 lbs/day

No daily maximum mass limits for CBOD5 have been established as doing so may discourage the ASD from maximizing the use of the secondary treatment process during wet weather events.

d. Total Suspended Solids (TSS) – The previous licensing established monthly and weekly TSS best practicable (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in 40 CFR 133.102 and Department rule Chapter 525(3)(III). The maximum daily TSS concentration limit of 50 mg/L were based on a Department best professional judgment of BPT. All three concentration limits are being carried forward in this permitting action.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Secondary Treated Effluent

As for mass limitations, the previous licensing action established monthly average and weekly average limitations based on a monthly average limit of 8.0 MGD that are being carried forward in this permitting action. The limitations were calculated as follows:

Monthly average: (8.0 MGD)(8.34)(30 mg/L) = 2,002 lbs/day
Weekly average: (8.0 MGD)(8.34)(45mg/L) = 3,002 lbs/day

As with CBOD5, no daily maximum mass limits for TSS have been established as doing so may discourage the ASD from maximizing the use of the secondary treatment process during wet weather events.

e. Settleable Solids - The previous license established weekly average and daily maximum concentration limits of 0.1 ml/L and 0.3 ml/L respectively. The Department has since reconsidered the monitoring requirements for settleable solids and has concluded that the weekly average monitoring is unnecessary and that a daily maximum limit of 0.3 ml/L provides sufficient information necessary to assess whether the treatment facility is providing best practicable treatment. Therefore, this permitting action is removing the weekly average monitoring requirement and carrying forward the daily maximum limit of 0.3 ml/L from the previous licensing action.

f. Escherichia coliform bacteria: The monthly average and daily maximum *E. coli* bacteria limits of 142 colonies/100 ml and 949 colonies/100 ml in the previous licensing action are being carried forward in this permitting action and are based on the State of Maine Water Classification Program criteria for Class C waters.

g. Total Residual Chlorine - The previous licensing action established a daily maximum BPT limit of 1.0 mg/L for the discharge that is being carried forward in this permitting action. Limits on total residual chlorine (TRC) are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge.

h. pH Range- The previous licensing action established a pH range limitation of 6.0 - 8.5 standard units. The limits were based on Maine Board of Environmental Protection Policy regarding the certification of NPDES permits and were considered best practicable treatment limitations. This permitting action is shifting the range limit from 5.5 – 8.5 to 6.0 –9.0 standard units pursuant to a new Department rule found at Chapter 525(3)(III)(c). The new limits are considered BPT.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Secondary Treated Effluent

i. Whole Effluent Toxicity (WET) and Chemical Specific Testing Maine Law,

38 M.R.S.A., Sections 414-A and 420, prohibits the discharge of effluents containing substances in amounts which would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the EPA. Department Rules, 06-096 CMR Chapter 530.5, *Surface Water Toxics Control Program*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET and chemical specific (priority pollutant) testing, as required by Chapter 530.5, is included in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the waste water, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Chemical specific, or "priority pollutant (PP)," testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria.

The Chapter 530.5 regulation places the ASD facility in the high frequency category for WET testing as the facility is required to adopt a pretreatment program under federal regulations and in the high frequency testing category for chemical specific testing as they are permitted to discharge greater than 1.0 MGD.

A recent review of ASD's data indicates that they have fulfilled the Chapter 530.5 testing requirements to date. See Attachment B of this Fact Sheet for a summary of the WET test results and Attachment C of this Fact Sheet for a summary of the chemical specific test dates.

Department Rule Chapter 530.5 and Protocol E(1) of a document entitled *Maine Department of Environmental Protection, Toxicity Program Implementation Protocols*, dated July 1998, states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical specific data for a given facility to determine if water quality based limitations must be included in the permit.

Chapter 530.5 §C(2) states when a discharge *"...contains pollutants at levels that have a reasonable potential to cause or contribute to an ambient excursion in excess of a numeric or narrative water quality criterion, appropriate water quality based limits must be established in the permit upon issuance."*

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Secondary Treated Effluent

Chapter 530.5 §C(3) also states that if data indicates that a discharge is causing an exceedence of applicable AWQC, then*:"(1) the Department must notify the licensee of*

the exceedence; (2) the licensee must submit a toxicity reduction evaluation (TRE) plan for review and approval within 30 days of receipt of notice and implement the TRE after Department approval; (3) the Department must modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutant and meet receiving water classification standards within 180 days of the Department's approval of the TRE."

On January 26, 2003, the Department conducted a statistical evaluation on the aforementioned tests results in accordance with the statistical approach outlined in EPA's March 1991 document entitled *Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled *Toxicity Program Implementation Protocols*. The results of the 1/26/03 WET and chemical specific evaluation indicates that the discharge does not exceed or have a reasonable potential to exceed the critical acute or chronic WET thresholds (2.3% and 0.48% respectively – mathematical inverse of the applicable dilution factors) for any of the WET species tested to date or any of the chemical specific elements/compounds tested to date.

The Department establishes the testing frequency for WET or chemical specific parameters that exceed or have a reasonable potential to exceed ambient water quality thresholds/criteria taking into consideration the frequency, timing and severity of the tests results that are at issue. In the absence of excedences or reasonable potential to exceed critical thresholds or ambient water quality criteria, the Department has made a best professional judgment to maintain a surveillance level of testing (1/Year) for the first four years of the permit. Beginning twelve (12) months prior to the expiration date of the permit, the permittee shall revert back to a screening level of testing of 1/Quarter for four consecutive calendar quarters.

Primary Treated Effluent

For those flows received at the treatment facility which are greater than that which can be treated to a secondary level of treatment, the Department has made a best professional judgment that primary treatment and seasonal disinfection constitutes appropriate and best practicable treatment. The only limitations that have been established for this waste stream are seasonal daily maximum limitations for *E. coli* bacteria and TRC. As with the limitations established for the secondary treatment process, the *E. coli* bacteria limits are based on the State of Maine Water Classification Program criteria for Class C waters and the TRC are based on a Department BPJ of BPT.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

The reporting requirements for the parameters in Special Condition A(2) of this permit (Flow, Surface Loading Rate, Overflow Occurrences and CBOD5 and TSS percent removal rates are being carried forward in this permitting action. These are parameters the

Department has deemed necessary to evaluate the performance of the primary treatment process.

7. PRETREATMENT

The permittee is required to administer a pretreatment program based on the authority granted under Federal regulations 40 CFR §122.44(j), 40 CFR Part 403 and section 307 of the Federal Water Pollution Control Act (Clean Water Act) and Department rule Chapter 528, *Pretreatment Program*. The permittee's pretreatment program received EPA approval on June 24, 1984 and as a result, appropriate pretreatment program requirements were incorporated into the previous National Pollutant Discharge Elimination System (NPDES) permit which were consistent with that approval and federal pretreatment regulations in effect when the permit was issued. Since issuance of the previous NPDES permit, the State of Maine has been authorized by the EPA to administer the federal pretreatment program as part of receiving authorization to administer the NPDES program.

Upon issuance of this MEPDES permit, the permittee is obligated to modify (if applicable) its pretreatment program to be consistent with current federal regulations and State rules. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce Department approved specific effluent limits (technically-based local limits - last approved by the EPA on July 1, 1993; (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with federal regulations and State rules; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant non-compliance for industrial users; and (6) establish a definition of and track significant industrial users.

These requirements are necessary to ensure continued compliance with the POTW's MEPDES permit and its sludge use or disposal practices.

In addition to the requirements described above, this permit requires that within 180 days of the permit's effective date, the permittee shall submit to the Department in writing, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal and State pretreatment regulations and rules respectively. These requirements are included in the permit (Special Condition N) to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. Lastly, by July 1 of each calendar year, the permittee must submit a pretreatment report detailing the activities of the program for the twelve month period ending 60 days prior to the due date.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The Department acknowledges that the elimination of the twenty-four (24) remaining CSO’s in the collection system and the secondary bypass (primary treated only) of sanitary waste water is a costly long term project. As the ASD’s sewer collection system is upgraded and maintained in according to the CSO Master Plan and Nine Minimum Controls, there

should be reductions in the frequency and volume of CSO activities and in the waste water receiving primary treatment only at the treatment plant and over time, improvement in the quality of the waste water discharge to the receiving waters. As permitted, the Department of Environmental Protection has determined the existing water uses will be maintained and protected.

As for the fish consumption advisory due to presence of mercury and dioxin, the Department is not aware of any information that indicates the discharge from the ASD's waste water treatment plant has constituents in sufficient quantities that are causing or contributing to the fish advisory.

The effluent limitations in this permit are equal to or more stringent than the limits in the previous license and/or effective NPDES permit.

9. PUBLIC COMMENTS

Public notice of this application was made in the Kennebec Journal newspaper on or about January 17, 2003. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

10. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7685

11. RESPONSE TO COMMENTS

During the period of April 17, 2003 through May 19, 2003, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to the Augusta Sanitary District (ASD). The Department received a number of verbal and written comments from the ASD but were not significant in that resulted in substantial revisions to the permit. Thereore, no response to comments was prepared.