



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

January 25, 2006

100 North Senate Avenue
Indianapolis, Indiana 46204
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VIA CERTIFIED MAIL

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Mr. James A. Garrard, Director
City of Indianapolis Department of Public Works
Environmental Services, Engineering Division
2460 City County Building
200 East Washington Street
Indianapolis, Indiana 46204

Re: Final Modification of NPDES Permit
No. IN0023183 for the Belmont Advanced
Wastewater Treatment Plant
Marion County

Dear Mr. Garrard:

Your request for modification of the above-referenced discharge permit has been processed in accordance with Section 402 and 405 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et seq.), and IDEM's permitting authority under IC 13-15 (formerly IC 13-7).

The enclosed Pages 1, 2, 2A, 2B, 11, 11A, 11B, 11C, 31, and 31A of 53 are intended to replace the Pages 1, 2, 11, and 31 of the existing permit. This modification, as requested in a letter dated July 30, 2004, with subsequent revision on September 28, 2004, is to reflect the authorization of a new wet weather discharge point, Outfall 005, which will be located after the new Trickling Filter/Solids Contact process at the Belmont AWT facility. New effluent limitations and monitoring requirements have been included for both the new Outfall 005 and a new internal monitoring point, Outfall 305. The draft modification was public noticed on October 4, 2005 for a 30-day comment period. During this time period only the City of Indianapolis submitted comments concerning the permit modification. Please refer to the Post Public Notice Addendum (PPNA) on pages 7 and 8 of the enclosed fact sheet for a summary of the comments and IDEM's responses. Any changes which have been made to the final permit modification are also discussed in the PPNA portion of the fact sheet.

The enclosed NPDES permit amendment covers your existing NPDES Permit No. IN0023183. All discharges from the referenced facility shall be consistent with the terms and conditions of this permit, as amended.

Mr. James A. Garrard, Director

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Pursuant to IC 4-21.5-3-2(e) and IC 4-21.5-3-5(f), the determination of modification in this letter becomes effective eighteen (18) days after it is served by U.S. mail. A party affected or aggrieved by this decision may appeal the modification and must do so within eighteen (18) days after the date of mailing of this letter by filing a request for an adjudicatory hearing with the Office of Environmental Adjudication. Any appeal request must be filed in accordance with IC 4-21.5-3-7 and IC 13-15-7 and must include facts demonstrating that the party requesting appeal is the applicant, a person aggrieved or adversely affected by this modification or otherwise entitled to review by the law. Pursuant to IC 13-15-7, the permit shall remain in force pending a decision on any appeal that has been timely requested under the provisions of IC 4-21.5 and IC 13-15-7.

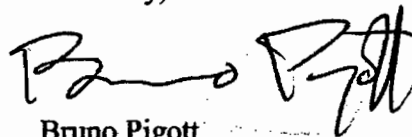
The appeal must be initiated by filing with the Office of Environmental Adjudication (OEA) a request for adjudicatory hearing within 18 days of the mailing of this letter at the following address:

Office of Environmental Adjudication
Indiana Government Center North
100 North Senate Avenue, Room 1049
Indianapolis, IN 46204

Please send a copy of any such appeal to me at 100 North Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions concerning this modification, please contact Mrs. Catherine Hess of my staff at 317/232-8704. Questions concerning appeal procedures should be directed to the Office of Environmental Adjudication at 317/232-8591.

Sincerely,



Bruno Pigott
Assistant Commissioner
Office of Water Quality

Enclosures

cc: U.S. EPA, Region 5
Marion County Health Department
Mr. George Russell, Certified Operator
The Honorable Bart Peterson, Mayor
Mr. Len Ashack, Bernardin Lochmueller & Associates, Inc.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
MODIFIED AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

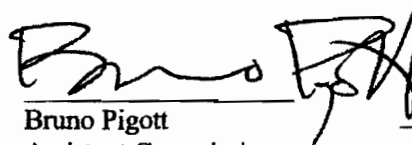
In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Act"), Title 13 of the Indiana Code, and regulations adopted by the Water Pollution Control Board, the Indiana Department of Environmental Management is issuing this permit modification to the

DEPARTMENT OF PUBLIC WORKS
CITY OF INDIANAPOLIS
AND ITS CONTRACT OPERATOR,
UNITED WATER

hereinafter collectively referred to as "the permittee". The Permittee is authorized to discharge from the *Belmont Advanced Wastewater Treatment (AWT) Plant* located at 2700 South Belmont Avenue, Indianapolis, Indiana to receiving waters named the West Fork of the White River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III and Attachments A & B hereof. The modified provisions shall become effective February 13, 2006. All terms and conditions of the permit not modified at this time remain in effect, except for any provisions that are stayed as a result adjudicatory proceedings pursuant to IC 4-21.5. Further, any existing permit terms or conditions modified herein shall remain in effect until the modified provisions become effective.

This modification shall expire at midnight September 30, 2006. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued this 25 day of January 2006, by the Indiana Department of Environmental Management.



Bruno Pigott
Assistant Commissioner
Office of Water Quality

TREATMENT FACILITY DESCRIPTION

The Belmont Advanced Wastewater Treatment (AWT) Plant, is a Class IV nitrification facility with screening, grit removal tanks, primary clarifiers, biological roughing system (BRS) towers, oxygen nitrification system (ONS) reactors, final clarifiers, coarse sand mono-media tertiary filters, effluent disinfection by chlorination/dechlorination and effluent flow monitoring. The plant has a design average flow of 120 MGD with a peak hourly design flow of 150 MGD. The permittee will be upgrading the existing 150 MGD BRS to a 150 MGD trickling filter/solids contact (TF/SC) secondary treatment process followed by a wet weather disinfection system. The facility is also changing its primary method of disinfection to ozonation. When certain criteria are met the effluent from the TF/SC process may be diverted to the wet weather disinfection facilities and discharged to the river through Wet Weather Discharge Outfall 005. Sludge treatment includes gravity thickening, equalization, belt filter press dewatering, and incineration or landfilling. The mass limits for CBOD₅ and TSS at Outfall 006 are based on the peak design flow of 150 MGD.

The City of Indianapolis is making improvements to the Belmont AWT Plant which will increase the wet weather treatment capacity to a peak hourly rate of 300 MGD. The proposed improvements include:

- construction of two wet weather storage basins: a 30-million gallon basin and a 4-million gallon basin;
- construction of two additional primary clarifiers that will add 30 MGD of peak hydraulic capacity;
- upgrading the existing 150 MGD bio-roughing system (BRS) to a 150 MGD trickling filter/solids contact (TF/SC) process including the construction of
 - solids contact and reaeration tankage
 - aeration equipment
 - intermediate clarifiers;
- construction of new conveyance lines to enable various amounts of primary effluent to be split between the TF/SC process and the existing oxygen nitrification system;
- construction of new conveyance lines to enable the effluent from the TF/SC process to be progressively shifted away from the ONS process during wet weather and discharged directly to the White River through a previously abandoned outfall now designated as Outfall 005; and
- modifications and renovation to an existing chlorine contact tank and installation of related dechlorination facilities for seasonal disinfection of the TF/SC effluent sent to Outfall 005 (Lat 39° 43' 34.18" N, Long. 86° 11' 25.40" W).

The Belmont AWT Plant has the following flow diversions structures:

1. **Southwest (Southern Avenue) Diversion**: A raw wastewater flow diversion exists external to the Belmont AWT Facility at the Southwest Diversion Structure located near Southern Avenue. Raw wastewater may be diverted to the Southport AWT Facility via a 60-inch diameter gravity sewer to the Southport AWT Facility depending on the system hydraulics and plant capacities. Actual flow rates during wet weather events have been 40 – 45 MGD.
2. **Belmont Wet Weather Pump Station (Raw Wastewater)**: A raw wastewater flow diversion exists prior to the facility's headworks. Raw wastewater flow from the Belmont Interceptor may be pumped by Belmont's Wet Weather Pump Station to the Southport AWT Facility via a 42-inch force main to the Tibbs Interceptor. Depending on the system hydraulics, the pumping capacity is 28-30 MGD. This diversion cannot be utilized when either the Belmont Wet Weather Pump Station (Primary Effluent), the Gravity Diversion (Primary Influent), or the Gravity Diversion (Primary Effluent) are activated.
3. **Belmont Wet Weather Pump Station (Primary Effluent)**: A primary effluent flow diversion exists after the Belmont Primary Clarifiers. Primary effluent stored in Wet Weather Storage Basin No. 1 may be pumped by Belmont's Wet Weather Pump Station to the Southport AWT Facility via a 42-inch force main to the Tibbs Interceptor. Depending on the system hydraulics, the pumping capacity is 28-30 MGD. This diversion cannot be utilized when either the Belmont Wet Weather Pump Station (Raw Wastewater), the Gravity Diversion (Primary Influent), or the Gravity Diversion (Primary Effluent) are activated.
4. **Gravity Diversion (Primary Influent)**: A preliminary treatment flow diversion exists prior to the facility's primary clarifiers. Preliminary treatment flow from the diversion may be conveyed by gravity via the 42-inch force main to the Southport AWT Facility via the Tibbs Interceptor. Depending on the system hydraulics, the diversion capacity is 16-18 MGD. This diversion cannot be utilized when the Belmont Wet Weather Pump Station (Raw Wastewater), the Belmont Wet Weather Pump Station (Primary Effluent), or the Gravity Diversion (Primary Effluent) are activated.
5. **Gravity Diversion (Primary Effluent)**: A primary effluent diversion exists after the facility's primary clarifiers. Primary effluent from the primary effluent channel may be conveyed by gravity via the 42-inch force main to the Southport AWT Facility via the Tibbs Interceptor. Depending on the system hydraulics, the diversion capacity is 11-14 MGD. This diversion cannot be utilized when the Belmont Wet Weather Pump Station (Raw Wastewater), the Belmont Wet Weather Pump Station (Primary Effluent), or the Gravity Diversion (Primary Influent) are activated.

6. Bio-Roughing and TF/SC Diversions: A primary effluent diversion exists prior to the facility's bio-roughing towers (or TF/SC when it is constructed). A portion of the primary effluent can be diverted to the oxygen nitrification facilities.
7. Effluent Filters Diversion: An oxygen nitrification system effluent diversion exists prior to the facility's effluent filters. All or a portion of the oxygen nitrification system effluent up to 150 MGD can be diverted around the effluent filters to the chlorination/dechlorination contact tanks.

The use of the diversions is subject to the bypass provisions of Part II.B.2 of this permit. The permittee also has one bypass point, (Outfall 007 which is the Belmont Primary Effluent Bypass), which is described and listed Part II.B.2.g of this permit.

5. Limited Discharge Authorization for Outfall 005
 (Located at Lat 39° 43' 34.18" N, Long. 86° 11' 25.40" W)

During the period beginning thirty (30) days after the TF/SC facilities are operational, the permittee is authorized to discharge effluent from the TF/SC process through internal Outfall 305 to Outfall 005 only during those times when the flow rate to ONS is equal to or exceeds the AWT peak hourly rated capacity of 150 MGD. In addition, discharge is not allowed unless there has been a precipitation event of at least 0.10 inches within twenty-four (24) hours preceding initiation of the discharge from Outfall 005. The permittee shall take samples and measurements to meet the monitoring requirements at a location representative of the Outfall 005 discharge. Such discharge shall be limited and shall be monitored by the permittee as specified below:

TABLE 6

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly		Weekly Units	Monthly	Weekly		Measurement Frequency	Sample Type
	Average	Average		Average	Average	Units		
Stream Flow[1]	Report	Report	MGD	---	---	---	Continuous	Gauge
Influent Flow [1]	Report	Report	MGD	---	---	---	Continuous	24-Hr. Total
Effluent Flow[1]	Report	Report	MGD	---	---	---	Continuous	24-Hr. Total
CBOD ₅	Report	Report	lbs/day	Report	Report	mg/l	When Discharging	Composite [2]
TSS	Report	Report	lbs/day	Report	Report	mg/l	When Discharging	Composite [2]
Ammonia-Nitrogen [5]	Report	Report	lbs/day	Report	Report	mg/l	When Discharging	Composite [2]

TABLE 7

Parameter	Quality or Concentration		Monthly Average	Units	Monitoring Requirements	
	Daily Minimum	Daily Maximum			Measurement Frequency	Sample Type
Effluent/Stream Ratio	Report	---	---	---	When Discharging	Instantaneous
pH	6.0	9.0	---	s.u.	When Discharging	Grab
Total Residual Chlorine [4] (April thru October)	---	0.02	0.01	mg/l	When Discharging	Grab
<i>E. coli</i> [3]	---	235	125	colonies/100ml	When Discharging	Grab
Dissolved Oxygen[5]	Report	---	---	mg/l	When Discharging	Grab
Cadmium [5]	---	Report	Report	mg/l	Quarterly	Grab
Copper[5]	---	Report	Report	mg/l	Quarterly	Grab
Cyanide, Free[5]	---	Report	Report	mg/l	Quarterly	Grab
Lead [5]	---	Report	Report	mg/l	Quarterly	Grab
Mercury [5]	---	Report	Report	ng/l	Quarterly	Grab
Nickel [5]	---	Report	Report	mg/l	Quarterly	Grab
Zinc [5]	---	Report	Report	mg/l	Quarterly	Grab

- [1] The actual stream flow shall be measured at the Morris Street USGS Gauging Station – Gage No. 03353000. Influent flow to the TF/SC process shall be measured at a point of entry into the TF/SC process. Effluent flow from the TF/SC process shall be measured at a point representative of the discharge into the White River. The flow meters shall be calibrated at least once annually.
- [2] A flow proportional composite sample shall be taken over the period of discharge. If the discharge occurs for more than 24 hours, then the sampling shall represent each calendar day consistent with the sampling requirements for Outfall 006. In addition, if there is more than one period of discharge during any calendar day, then the composite sample shall be representative of the total discharge during that calendar day.
- [3] The effluent shall be disinfected on a continuous basis such that violations of the *E. coli* limitations do not occur from April 1 through October 31, annually. The discharge must meet the daily maximum limit for each day in which Outfall 005 discharges consistent with the requirements in Footnote [2] above. If there are less than five (5) discharges in a calendar month, then the monthly average does not need to be reported on the Discharge Monitoring Form (DMR). If Outfall 005 discharges five (5) times or more during a calendar month, then the monthly average *E. coli* value shall be calculated as a geometric mean and shall be reported on the DMR. If the permittee uses chlorine for any reason, at any time including the period from November 1 through March 31, then the limits and monitoring requirements in Table 7 for total residual chlorine shall be in effect whenever chlorine is used.

IDEM has specified the following methods as allowable for the detection and enumeration of *Escherichia coli* (*E. coli*):

1. Coliscan MF® Method
2. EPA Method 1103.1 using original m-TEC agar.
3. EPA revised Method 1103.1 using modified m-TEC agar.
4. *Standard Methods* 20th Edition Method 9223 B using Colilert® - for use of this procedure, an initial comparison study must be conducted between Colilert® and an approved membrane filtration method. This comparison study must be approved by IDEM before this method can be used by the permittee.

[4] Compliance with this permit requirement will be demonstrated if the measured effluent concentrations are less than the limit of quantitation (LOQ) (0.06 mg/l). If the measured effluent concentrations are above the water quality-based permit limitations and above the limit of detection (LOD) (0.02 mg/L) but less than the LOQ specified by the permit in any of three (3) consecutive analyses or any five (5) out of nine (9) analyses, the permittee is required to reevaluate its chlorination/dechlorination practices to make any necessary changes to assure compliance with the permit limitation for TRC. After submission of the first reevaluation to IDEM- OWQ, the permittee shall only be required to complete additional reevaluations when the circumstances which caused the effluent concentration to exceed the LOD are different than the previous reevaluation, or upon request of the IDEM, Office of Water Quality. If the permittee determines additional

reevaluations of exceedances are not necessary because the cause of the exceedance is the same, the permittee shall document the basis for its determination. These records must be retained in accordance with the record retention requirements of Part I.B.8 of this permit.

Effluent concentrations less than the limit of quantitation shall be reported on the discharge monitoring report forms as the actual value. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected at a concentration of 0.02 mg/l, report the value as <0.02 mg/l. At present, two methods are considered to be acceptable to IDEM, amperometric and DPD colorimetric methods, for chlorine concentrations at the level of 0.06 mg/l.

<u>Parameter</u>	<u>LOD/MDL</u>	<u>LOQ</u>
Chlorine	0.02 mg/l	0.06 mg/l

Case-Specific LOD/MDL

The permittee may determine a case-specific limit of detection (LOD) or limit of quantitation using the analytical method specified above. The limit of detection shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the limit of quantitation (LOQ) shall be set equal to 3.18 times the limit of detection. Other methods may be used if first approved by EPA and IDEM.

- [5] This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to include effluent limitations and/or additional monitoring requirements if it is determined that there is reasonable potential to exceed a water quality criterion for any of these parameters.

6. Limitations and Monitoring Requirements for Internal Outfall 305
 (Located at Lat 39° 43' 30.55" N, Long. 86° 11' 32.72" W)

During the period beginning thirty (30) days after the permittee provides IDEM with notification that the TF/SC facilities have been constructed and are operational, the permittee is required to comply with the following requirements for the discharge from the TF/SC process. Such discharge shall be limited and monitored by the permittee as specified below:

TABLE 8

<u>Parameter</u>	<u>Quantity or Loading</u>			<u>Quality or Concentration</u>			<u>Monitoring Requirements</u>	
	<u>Monthly</u>	<u>Weekly</u>	<u>Units</u>	<u>Monthly</u>	<u>Weekly</u>	<u>Units</u>	<u>Measurement</u>	<u>Sample</u>
	<u>Average</u>	<u>Average</u>		<u>Average</u>	<u>Average</u>		<u>Frequency</u>	<u>Type</u>
Flow[1]	Report	Report	MGD	---	---	---	Continuous	24-Hr. Total
CBOD ₅	Report	Report	lbs/day	25 [*]	40	mg/l	Daily	24-Hr. Comp.
TSS	Report	Report	lbs/day	30 [*]	45	mg/l	Daily	24-Hr. Comp.
Ammonia-N	Report	Report	lbs/day	Report	Report	mg/l	Daily	24-Hr. Comp.

TABLE 9

<u>Parameter</u>	<u>Quality or Concentration</u>		<u>Monthly</u> <u>Average</u>	<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Daily</u> <u>Minimum</u>	<u>Daily</u> <u>Maximum</u>			<u>Measurement</u>	<u>Sample</u> <u>Frequency</u>
pH	6.0	9.0	--	s.u.	Daily	Grab
Dissolved Oxygen	Report	--	--	mg/l	Daily	Grab

[*] Percent removal shall be monitored and reported.

[1] Influent and effluent flow to and from the TF/SC process shall be measured at a point that is representative of the volume of the TF/SC process.

g. The wastewater treatment plant has the following bypass point (outfall):

<u>Outfall No.</u>	<u>Location</u>	<u>Receiving Stream</u>
007	Belmont Primary Effluent Bypass	White River

Primary Effluent Bypass: A primary effluent bypass exists after the primary clarifiers and prior to the TF/SC system. Primary effluent from this bypass discharges over adjustable weirs located in the Primary Effluent Diversion Structure and enters the White River via Outfall 007.

h. **Dry Weather Operation:** The trickling filter/solids contact (TF/SC) and oxygen nitrification (ONS) processes listed in the Treatment Facility Description will be treated as an integrated biological treatment system during dry weather to give the permittee operational flexibility to optimize effluent quality. Splitting the primary effluent flow between the TF/SC and ONS processes is a necessary feature of the integrated system during dry weather as well as wet weather periods. The ability to split the BRS effluent flow between the contact/reaeration tankage and ONS is another desirable feature of the integrated system. Such flow splitting between individual unit operations and processes within the integrated biological treatment system are necessary and will not be considered bypasses or diversions provided that:

- (1) the final effluent quality at Outfalls 005 and 006 is in strict compliance with the permit limits,
- (2) the permittee maximizes the treatment capability of the plant during wet weather events as described below, and
- (3) the permittee maintains the records required under subdivision (i) below.

Wet Weather Operation: When the flow to ONS reaches or exceeds its 150 MGD peak hourly rated capacity, the integrated system may be uncoupled and effluent from the TF/SC system may be diverted to the disinfection facilities and discharged through Outfall 005. During the period when TF/SC effluent is discharged to Outfall 005 (including half-hour discretionary periods before, during and after wet-weather episodes), the flow through ONS must be maintained at or above the 150 MGD peak hourly rated capacity. The effluent limits contained in Tables 6 and 7 (Part I.A.5) apply to the effluent as long as the discharge occurs. The effluent limits contained in Tables 8 and 9 (Part I.A.6 of the permit) apply to the discharge from the TF/SC process, but prior to entering Outfall 005. Within a half-hour after the flow to the integrated biological system has decreased to less than 150 MGD, the discharge from Outfall 005 must cease.

Diversions of flow around the entire integrated biological treatment system shall be considered bypasses subject to Part II.B.2.a - f of this permit.

- i. For each day that a diversion occurs for either wet weather or dry weather, the permittee shall maintain records that document that the criteria listed in subdivision h above have been satisfied. The records must include documentation of the portion of each unit treatment process utilized to comply with the above criteria. The records shall include the time that an individual component of the unit treatment process is removed from service or placed back into service.
- j. The permittee must submit standard operating procedures (SOPs) to the Compliance Branch documenting the use of the unit treatment processes both during wet and dry weather conditions 60 days before completion of construction of the TF/SC process or 60 days before the TF/SC process is placed in full-time operation, whichever occurs first. These SOPs must include the conditions in which partial diversion of flow occurs, including the flow-splitting of primary effluent between the TF/SC and the ONS processes.
- k. The partial diversion of flow around the effluent filters is authorized provided:
 - (1) The filters are utilized to the maximum extent possible, taking into consideration the quality of the secondary effluent and the hydraulic impacts of filter backwash surge flow rates;
 - (2) The effluent quality does not result in exceedances of the effluent limitations contained in Part I of this permit;
 - (3) The permittee maintains the records required under subdivision (i) above. This information must also include documentation of the filter backwash rates before and after the partial diversion; and
 - (4) When flow into the plant exceeds 120 MGD after the filter rehabilitation is completed as defined in PER 3A and approved by IDEM on June 26, 2001.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Act"), and the Indiana Department of Environmental Management's (IDEM's) permitting authority under IC 13-15, as amended, (formerly IC 13-7), the

**DEPARTMENT OF PUBLIC WORKS
CITY OF INDIANAPOLIS
AND ITS CONTRACT OPERATOR,
WHITE RIVER ENVIRONMENTAL PARTNERSHIP**

hereinafter collectively referred to as "the permittee" is authorized to discharge from the *Belmont Advanced Wastewater Treatment (AWT) Plant* located at 2700 South Belmont Avenue, Indianapolis, Indiana to receiving waters named the West Fork of the White River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III and Attachments A & B hereof.

Effective Date: December 1, 2001.

Expiration Date: September 30, 2006 .

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Signed this 26th day of October, 2001, for the Indiana Department of Environmental Management.

Timothy J. Method
Deputy Commissioner
Environmental Results

TREATMENT FACILITY DESCRIPTION

The Belmont Advanced Wastewater Treatment (AWT) Plant, one of two serving Indianapolis, is a Class IV, 120 MGD nitrification facility with screening, grit removal tanks, primary clarifiers, biological roughing towers, oxygen nitrification reactors, secondary clarifiers, mixed media tertiary filters, effluent disinfection by chlorination/dechlorination and effluent flow monitoring. The permittee will be changing its primary method of disinfection to ozonation in accordance with the requirements of Part I.F of this permit. The plant has a design average flow of 120 MGD with a peak hourly design flow of 150 MGD. The primary clarifiers have a peak hydraulic capacity of 270 MGD. The secondary treatment facilities have an average daily flow capacity of 125 MGD. Sludge treatment includes gravity thickening, equalization, belt filter press dewatering, and incineration or landfilling. The mass limits for CBOD₅ and TSS are based on the peak design flow of 150 MGD.

The AWT Plant has the following flow diversions:

1. Southwest (Southern Avenue) Diversion: A raw wastewater flow diversion exists external to the Belmont AWT Facility at the Southwest Diversion Structure located near Southern Avenue. Raw wastewater may be diverted to the Southport AWT Facility via a 60-inch diameter gravity sewer designed to send up to 60 MGD to the Southport AWT Facility depending on the system hydraulics.
2. Wet Weather Pump Station: A raw wastewater flow diversion exists prior to the facility's headworks. Raw wastewater flow from the Belmont Interceptor may be pumped to the Southport AWT Facility via a 42-inch force main to the Tibbs Interceptor. Depending on the system hydraulics, the pumping capacity is 28-30 MGD.
3. Gravity Diversion: A preliminary treatment flow diversion exists prior to the facility's primary clarifiers. Preliminary treatment flow from the diversion may be conveyed by gravity via the 42-inch force main to the Southport AWT Facility via the Tibbs Interceptor. Depending on the system hydraulics, the diversion capacity is 16-18 MGD. The preliminary treatment diversion cannot be utilized when the raw wastewater diversion prior to the headworks is activated.
4. Bio-Roughing Diversion: A primary effluent diversion exists prior to the facility's bio-roughing towers. All or a portion of the primary effluent up to 150 MGD can be diverted to the oxygen nitrification facilities.
5. Effluent Filters Diversion: An oxygen nitrification system effluent diversion exists prior to the facility's effluent filters. All or a portion of the oxygen nitrification system effluent up to 150 MGD can be diverted around the effluent filters to the chlorination/dechlorination contact tanks.

The use of the diversions is subject to the bypass provisions of Part II.B.2 of this permit. The permittee also has one bypass point, which is described and listed Part II.B.2 of this permit.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee shall take samples and measurements to meet the effluent limitations and monitoring requirements at a location representative of the discharge. Such discharge shall be limited and monitored by the permittee as specified below. Refer to Part I.B. of this permit for additional monitoring and reporting requirements.

1. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge from Outfall 006.

TABLE 1

<u>Parameter</u>	<u>Quantity or Loading</u>		<u>Units</u>	<u>Quality or Concentration</u>			<u>Monitoring Requirements</u>	
	<u>Monthly</u>	<u>Weekly</u>		<u>Monthly</u>	<u>Weekly</u>	<u>Units</u>	<u>Measurement</u>	<u>Sample</u>
	<u>Average</u>	<u>Average</u>		<u>Average</u>	<u>Average</u>		<u>Frequency</u>	<u>Type</u>
Flow [1]	Report	Report	MGD	---	---	-----	Continuous	24-Hr. Total
CBOD ₅								
Summer [2]	12518	18776	lbs/day	10	15	mg/l	Daily	24-Hr. Comp.
Winter [3]	25035	37553	lbs/day	20+	30	mg/l	Daily	24-Hr. Comp.
TSS								
Summer [2]	12518	18776	lbs/day	10	15	mg/l	Daily	24-Hr. Comp.
Winter [3]	25035	37553	lbs/day	20+	30	mg/l	Daily	24-Hr. Comp.
Ammonia-N								
Summer [2]	3128	4692	lbs/day	3.0	4.5	mg/l	Daily	24-Hr. Comp.
Winter [3]	6150	9225	lbs/day	5.9	8.9	mg/l	Daily	24-Hr. Comp.
Fecal coliform [5]	--	--	--	200	400	Count/100ml	Daily	Grab

+ Or 85% removal, whichever is more stringent.

TABLE 2

<u>Parameter</u>	<u>Quality or Concentration</u>			<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Daily</u>	<u>Daily</u>	<u>Monthly</u>		<u>Measurement</u>	<u>Sample</u>
	<u>Minimum</u>	<u>Maximum</u>	<u>Average</u>		<u>Frequency</u>	<u>Type</u>
Dissolved Oxygen [4]						
Summer [2]	8.0	--	--	mg/l	Daily	12 Grabs/24-Hr.
Winter [3]	6.0	--	--	mg/l	Daily	12 Grabs/24-Hr.
pH	6.0	9.0	--	s.u.	Daily	Grab
<i>E. coli</i> [5][*]	--	235	125	Count/100ml	Daily	Grab
TRC [6,7]						
Interim	--	1.0	-	mg/l	Daily	Grab
Final [*]	--	0.02	0.01	mg/l	Daily	Grab

NOTE: Refer to Part I.G of this permit for Whole Effluent Toxicity Requirements.
 [*] Refer to Parts I.E & F of this permit for the Schedules of Compliance.

- [1] Flow measurement is required per 327 IAC 5-2-13. The flow meter(s) shall be calibrated at least once annually.
- [2] Summer limitations apply from May 1 through November 30 of each year.
- [3] Winter limitations apply from December 1 through April 30 of each year.
- [4] The reported daily average concentration of dissolved oxygen in the effluent shall be the arithmetic mean determined by summation of the 12 daily grab sample results and dividing this sum by 12. These samples are to be collected over equal time intervals during the period of operator attendance.

Disinfection Requirements

- [5] The effluent shall be disinfected on a continuous basis such that excursions above the fecal coliform and *E. coli* limitations do not occur from April 1 through October 31, annually. The monthly average *E. coli* value shall be calculated as a geometric mean. If the permittee uses chlorine for any reason from November 1 through March 31, then the limits and monitoring requirements in Table 2 for residual chlorine shall be in effect whenever chlorine is used.

The monthly and weekly average fecal coliform values shall be calculated as a geometric mean. For the term of the compliance schedule in Part I.F of this permit, the permittee may choose to comply with the fecal coliform limits and monitoring requirements during the chlorination season in lieu of the *E. coli* limits. After the term of the compliance schedule in Part I.F of this permit has ended, the fecal coliform limits will no longer be in effect, and the *E. coli* limits will be in effect during each disinfection season.

IDEM has specified the following methods as allowable for the detection and enumeration of *Escherichia coli* (*E. coli*):

1. Coliscan MF® Method
2. EPA Method 1103.1 using original m-TEC agar.
3. EPA revised Method 1103.1 using modified m-TEC agar.
4. *Standard Methods* 20th Edition Method 9223 B using Colilert® - for use of this procedure, an initial comparison study must be conducted between Colilert® and an approved membrane filtration method. This comparison study must be approved by IDEM before this method can be used by the permittee.

- [6] During the interim 12-month period after the effective date of the permit, the permittee is required to comply with the daily maximum effluent limit of 1.0 mg/l for total residual chlorine as measured at the effluent end of the chlorine contact tank. Also during this period the permittee is required to dechlorinate the effluent to the best of its abilities. After the interim period, the permittee shall comply with the effluent limitations for total residual chlorine contained under Part I.A.1, Table 2.
- [7] Compliance with this permit requirement will be demonstrated if the observed effluent concentrations are less than the limit of quantitation (LOQ) (0.06 mg/l). If the measured effluent concentrations are above the water quality-based permit limitations and above the limit of detection (LOD) specified by the permit in any of three (3) consecutive analyses or any five (5) out of nine (9) analyses, the permittee is required to reevaluate its chlorination/dechlorination practices to make any necessary changes to assure compliance with the permit limitation for TRC. After submission of the first reevaluation to IDEM-OWQ, the permittee shall only be required to complete additional reevaluations when the circumstances which caused the effluent concentration to exceed the LOD are different than the previous reevaluation, or upon request of the IDEM, Office of Water Quality. If the permittee determines additional reevaluations of exceedances are not necessary because the cause of the exceedance is the same, the permittee shall document the basis for its determination. These records must be retained in accordance with the record retention requirements of Part I.B.8 of this permit.

Effluent concentrations less than the limit of quantitation shall be reported on the discharge monitoring report forms as the actual value. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected at a concentration of 0.02 mg/l, report the value as 0.02 mg/l. At present, two methods are considered to be acceptable to IDEM, amperometric and DPD colorimetric methods, for chlorine concentrations at the level of 0.06 mg/l.

<u>Parameter</u>	<u>LOD/MDL</u>	<u>LOQ</u>
Chlorine	0.02 mg/l	0.06 mg/l

Case-Specific LOD/MDL

The permittee may determine a case-specific limit of detection (LOD) or limit of quantitation using the analytical method specified above. The limit of detection shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the limit of quantitation (LOQ) shall be set equal to 3.18 times the limit of detection. Other methods may be used if first approved by EPA and IDEM.

2. Minimum Water Quality Requirements

Pursuant to 327 IAC 2-1-6, the discharge from any and all point sources regulated within this permit shall not cause receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, foam, or scum:

- a. that will settle to form putrescent or otherwise objectionable deposits;
- b. that are in amounts sufficient to be unsightly or deleterious;
- c. that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
- d. which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;
- e. which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

3. Additional Discharge Limitations and Monitoring Requirements

- a. During the period beginning on the effective date of the permit, and continuing until three years after the effective date, the effluent from Outfall 006 shall be limited and monitored by the permittee as follows:

TABLE 3

<u>Pollutant</u>	<u>Quality or Concentration</u>			<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Unit</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Cyanide, A [2]	-	0.027	mg/l	1 X Weekly	See [3] Below
Cyanide, T [2]	Report	Report	mg/l	1 X Weekly	See [3] Below
Mercury [1,4]	--	0.0005	mg/l	4 X Yearly	24 Hr. Comp.
Chloride [5]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
Fluoride [5]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
Sulfate [5]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
TDS [5]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.

[1] The above-noted parameters are intended to be analyzed by a test method which will measure the quantity of acid-soluble metal present, however, an approved analytical method for acid-soluble metal is not yet available. The permittee shall measure and report these parameters as total recoverable metal until such a test method is approved which measures acid-soluble metal.

[2] The cyanide limits are based upon amenable cyanide. The permittee is also required to monitor and report total cyanide.

[3] The maximum holding time for cyanide (CN) is 24 hours when sulfide is present and 14 days when sulfide is absent, according to 40 CFR 136.3, Table II. Therefore, CN is to be monitored by collecting a representative grab sample and analyzing it within 24 hours. Alternatively, if the permittee can demonstrate the wastewater contains no sulfide, the permittee may collect a composite sample and analyze it within 14 days.

[4] The permittee shall monitor mercury utilizing the following method.

<u>Parameter</u>	<u>EPA Method</u>	<u>LOD</u>	<u>LOQ</u>
Mercury	1631	0.2 ng/l	0.5 ng/l

[5] Effluent shall be monitored once each week for the term of the permit following the effective date of the permit. The permittee shall vary the day of the week on which the monitoring is performed throughout every month. The permittee may, at any time, submit and request a review of monitoring data once a statistically significant data set has been achieved. The permit may be modified to remove monitoring requirements for any of the above parameters that will not be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a water quality criterion in 327 IAC 2-1. Conversely, effluent limitations and monitoring requirements and a suitable schedule of compliance, if needed, may be added for any parameter found to be capable of reasonable potential to cause or contribute to an excursion above the water quality criterion for that parameter.

b. During the period beginning three years after the effective date of the permit, and continuing until the expiration date, the effluent from Outfall 006 shall be limited and monitored by the permittee as follows:

TABLE 4

<u>Pollutant</u>	<u>Quality or Concentration</u>			<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Unit</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Cyanide, T [2,5,6]	0.008	0.019	mg/l	1 X Weekly	See [3] Below
Mercury [1,2,4]	0.00001	0.00002	mg/l	4 X Yearly	24 Hr. Comp.
Chloride [7]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
Fluoride [7]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
Sulfate [7]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.
TDS [7]	Report	Report	mg/l	1 X Weekly	24 Hr. Comp.

[1] The above-noted parameters are intended to be analyzed by a test method which will measure the quantity of acid-soluble metal present, however, an approved analytical method for acid-soluble metal is not yet available. The permittee shall measure and report these parameters as total recoverable metal until such a test method is approved which measures acid-soluble metal.

- [2] The City of Indianapolis has submitted an application for a variance from the effluent limitations for total cyanide. Therefore, these effluent limitations for total cyanide are subject to the reopening clause in Part I.C.8 of this permit.
- [3] The maximum holding time for cyanide (CN) is 24 hours when sulfide is present and 14 days when sulfide is absent, according to 40 CFR 136.3, table II. Therefore, CN is to be monitored by collecting a representative grab sample and analyzing it within 24 hours. Alternatively, if the permittee can demonstrate the wastewater contains no sulfide, the permittee may collect a composite sample and analyze it within 14 days.
- [4] The City of Indianapolis has submitted an application for a variance from the effluent limitations for mercury. Therefore, these effluent limitations for mercury are subject to the reopening clause in Part I.C.8 of this permit. The permittee shall monitor mercury utilizing the following method.

<u>Parameter</u>	<u>EPA Method</u>	<u>LOD</u>	<u>LOQ</u>
Mercury	1631	0.2 ng/l	0.5 ng/l

- [5] The water quality-based monthly average effluent limitation is less than the limit of quantitation (LOQ) as defined below. Compliance with this permit will be demonstrated if the observed effluent concentrations in each sample used in calculating the monthly average is less than the limit of quantitation and the observed daily maximum effluent limitation is equal to or less than the daily maximum limitation in the table.

<u>Parameter</u>	<u>EPA Method</u>	<u>LOD</u>	<u>LOQ</u>
Cyanide	335.3	0.005 mg/l	0.016 mg/l

CASE-SPECIFIC LOD/LOQ

- [6] The permittee may determine a case-specific limit of detection or limit of quantitation using the analytical method specified above. The limit of detection shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the limit of quantitation (LOQ) shall be set equal to 3.18 times the limit of detection. Other methods may be used if first approved by EPA and IDEM.

Effluent concentrations less than the limit of quantitation shall be reported on the discharge monitoring report forms as the actual value. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected at a concentration of 0.1 ug/l, report the value as 0.1 ug/l. If the measured effluent concentrations for a substance are above the water quality-based permit limitations and above the limit of detection specified by the permit in any three (3) consecutive analyses or any five (5) out of nine (9) analyses or the additional requirements, if any, required below indicate that the substance is present in the effluent at concentrations exceeding the water quality-based permit limitations, the discharger will be required to:

1. Determine the source of this substance through evaluation of sampling techniques, analytical/laboratory procedures, and industrial processes and waste streams, and
2. Increase the frequency of sampling and testing for the substance.

Depending upon the circumstances, the permittee may also be required to take corrective action to reduce the pollutant in the effluent below the water quality-based effluent limit.

[7] The effluent shall be monitored once each week for the term of the permit. The permittee shall vary the day of the week on which the monitoring is performed throughout every month. The permittee may, at any time, submit and request a review of monitoring data once a statistically significant data set has been achieved. The permit may be modified to remove monitoring requirements for any of the above parameters that will not be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a water quality criterion in 327 IAC 2-1. Conversely, effluent limitations and monitoring requirements and a suitable schedule of compliance, if needed, may be added for any parameter found to be capable of reasonable potential to cause or contribute to an excursion above the water quality criterion for that parameter.

4. Additional Monitoring Requirements

During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee shall conduct the following monitoring activities:

a. Influent Monitoring

The permittee shall monitor the influent to its wastewater treatment facility for the following pollutants. Samples shall be representative of the raw influent, prior to mixing with any other wastewater (recycle streams, supernatant return, etc.).

TABLE 5

Parameter [1]	Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Unit	Measurement Frequency	Sample Type
Cadmium	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Copper	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Cyanide- A	Report	Report	mg/l	2 X Monthly	See [2] Below
Cyanide- T	Report	Report	mg/l	2 X Monthly	See [2] Below
Lead	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Mercury [3]	Report	Report	mg/l	4 X Yearly	24 Hr. Comp.
Nickel	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Zinc	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Chloride	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Fluoride	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Sulfate	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
TDS	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Arsenic	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.

- [1] All metals shall be reported as Total Metals. Cyanide shall be reported as both total and amenable cyanide.
- [2] The maximum holding time for cyanide (CN) is 24 hours when sulfide is present and 14 days when sulfide is absent, according to 40 CFR 136.3, Table II. Therefore, CN is to be monitored by collecting a representative grab sample and analyzing it within 24 hours. Alternatively, if the permittee can demonstrate the wastewater contains no sulfide, the permittee may collect a composite sample and analyze it within 14 days.
- [3] The permittee shall monitor mercury utilizing the following method.

<u>Parameter</u>	<u>EPA Method</u>	<u>LOD</u>	<u>LOQ</u>
Mercury	1631	0.2 ng/l	0.5 ng/l

b. Organic Pollutant Monitoring

The permittee shall conduct an annual inventory of organic pollutants and shall identify and quantify additional organic compounds which occur in the influent, effluent, and sludge. The analytical report shall be sent to the Compliance Branch, Office of Water Quality. This report is due in December of each year. The inventory shall consist of:

1. Sampling and Analysis of Influent and Effluent

Sampling shall be conducted on a day when industrial discharges are occurring at normal production levels. The samples shall be 24-hour flow proportional composites, except for volatile organics, which shall be taken by appropriate grab sampling techniques. Analysis for the U.S. EPA organic priority pollutants shall be performed using U.S. EPA methods 624, 625 and 608 in 40 CFR 136, or other equivalent methods approved by U.S. EPA. Equivalent methods must be at least as sensitive and specific as methods 624, 625 and 608.

All samples must be collected, preserved and stored in accordance with 40 CFR 136, Appendix A. Samples for volatile organics must be analyzed within 14 days of collection. Samples for semivolatile organics, PCBs and pesticides must be extracted within 7 days of collection and analyzed within 40 days of extraction. For composite samples, the collection date shall be the date at the end of the daily collection period.

2. Sampling and Analysis of Sludge

Sampling collection, storage, and analysis shall conform to the U.S. EPA recommended procedures equivalent to methods 624, 625 and 608 in 40 CFR 136 or applicable methods in SW 846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Special sampling and/or preservation techniques will be required for those pollutants which deteriorate rapidly.

Sludge samples for volatile organics must be analyzed within 14 days of collection. Sludge samples for semivolatile organics, PCBs and pesticides must be extracted within 14 days of collection and analyzed within 40 days of extraction.

3. Additional Pollutant Identification

In addition to the priority pollutants, a reasonable attempt shall be made to identify and quantify the ten most abundant constituents of each fraction (excluding priority pollutants and unsubstituted aliphatic compounds) shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) more than ten times higher than the adjacent background noise. Identification shall be attempted through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation by an experienced analyst. Quantification may be based on an order of magnitude estimate based upon comparison with an internal standard.

The annual program effectiveness review, Part III. A.5, should identify the additional steps necessary to determine whether the pollutants present interfere, pass through, or otherwise violate 40 CFR 403.2. Upon such determination, the report must also identify the steps taken to develop and enforce local limitations on industrial discharges for those pollutants. This is a requirement of 40 CFR 403.5.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Data on Plant Operation

The raw influent and the wastewater from intermediate unit treatment processes, as well as the final effluent shall be sampled and analyzed for the pollutants and operational parameters specified by the applicable Monthly Report of Operation Form, as appropriate, in accordance with 327 IAC 5-2-13.

3. Reporting

The permittee shall submit monitoring reports to the Indiana Department of Environmental Management containing results obtained during the previous month and shall be postmarked no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report and the Monthly Report of Operation. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit.

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the MRO for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

4. Definitions

a. Effluent Limitations

The arithmetic mean of the CBOD₅, ammonia-nitrogen, mercury, cyanide and TSS values for effluent samples collected in a calendar month, week or day shall not exceed the monthly averages, weekly averages or daily maximum values contained in the Discharge Limitation Section of this permit for concentration and quantity. The geometric mean of the fecal coliform values and the monthly average *E. coli* values for effluent samples collected in a calendar month, week or day shall not exceed the

monthly averages, weekly averages or daily maximum values contained in the Discharge Limitation Section of this permit for concentration and quantity.

b. Terms

- (1) "Monthly Average" - The monthly average discharge means the total discharge during a calendar month. The monthly average shall be determined by the summation of the measured daily discharge divided by the number of days during the calendar month when measurements were taken.
- (2) "Weekly Average" - The weekly average discharge means the total mass or flow-weighted concentration of all daily discharges during any calendar week on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar week. The average weekly discharge limitation is the maximum allowable average weekly discharge for any calendar week
- (3) "Daily Maximum" -The daily maximum discharge limitation is the maximum allowable daily discharge for any calendar day. The "daily discharge" means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that reasonably represents the calendar day for the purpose of sampling.
- (4) The 24-hour Composite Sample consists of at least 12 grab samples collected over equal time intervals during the period of operator attendance. The grab samples for the composites shall be proportioned to flow. A flow-proportioned composite sample is obtained by:
 - (a) recording the discharge flow rate at the time each individual sample is taken,
 - (b) adding together the discharge flow rates recorded from each individual sampling time to formulate the "total flow value,"
 - (c) dividing the discharge flow rate of each individual sampling time by the total flow value to determine its percentage of the total flow value.
 - (d) multiplying the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.
- (5) TBOD₅: Total Biochemical Oxygen Demand
- (6) CBOD₅: Carbonaceous Biochemical Oxygen Demand

(7) TSS: Total Suspended Solids

(8) *E. coli*: Escherichia coli bacteria

- c. The "Regional Administrator" is defined as the Region V Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.
- d. The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, located at the following address: 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015.

5. Test Procedures

The analytical and sampling methods used shall conform to the current version of 40 CFR, Part 136. The approved methods may be included in the texts listed below. However, different but equivalent methods are allowable if they receive the prior written approval of the State agency and the U.S. Environmental Protection Agency. Where no test procedure under 40 CFR 136 has been approved, analytical work shall be conducted in accordance with the most recent edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association (APHA) or as otherwise specified by the Commissioner.

- a. Standard Methods for the Examination of Water and Wastewater
18th Edition, 1992, American Public Health Association,
Washington, D.C. 20005.
- b. A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis
1972 American Society for Testing and Materials,
Philadelphia, PA 19103.
- c. Methods for Chemical Analysis of Water and Wastes
June 1974, Revised, March 1983, Environmental Protection
Agency, Water Quality Office, Analytical Quality Control
Laboratory, 1014 Broadway, Cincinnati, OH 45202.

6. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The person(s) who performed the sampling or measurements;
- c. The dates the analyses were performed;

- d. The person(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of all required analyses and measurements.

7. Additional Monitoring by the Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Discharge Monitoring Report. Such increased frequency shall also be indicated.

8. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three-year period shall be extended:

- a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or
- b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

C. REOPENING CLAUSES

- 1. This permit may be modified or, alternately, revoked and reissued after public notice and opportunity for hearing to incorporate effluent limitations reflecting the results of a total maximum daily load (TMDL), wasteload allocation, additional stream studies, new or increased discharges of a pollutant(s) by industrial users, changes in water quality standards, or other information if the Department of Environmental Management determines that such effluent limitations are needed to assure that state water quality standards are met in the receiving stream.
- 2. This permit may be modified due to a change in sludge disposal standards pursuant to Section 405(d) of the Clean Water Act, if the standards when promulgated contain different conditions, are otherwise more stringent, or control pollutants not addressed by this permit.

3. This permit may be modified, or alternately, revoked and reissued after public notice and opportunity for hearing to include whole effluent toxicity limitations or to include limitations for specific pollutants if the results of the biomonitoring and/or the TRE study indicate that such limitations are necessary.
4. This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing, to include a case-specific Method Detection Level (MDL). The permittee must demonstrate that such action is warranted in accordance with the procedure specified under Appendix B, 40 CFR Part 136, or approved by the Indiana Department of Environmental Management.
5. This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to incorporate additional requirements or limitations for specific pollutants if the required additional analyses in Part I.A.3. a. or b. indicate that such additional requirements and/or limitations are necessary to assure that state water quality standards are met in the receiving stream.
6. This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to include and/or modify limitations to reflect any change in Indiana water quality standards.
7. This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to incorporate additional requirements or limitations for specific effluent constituents when an approved EPA analytical protocol is developed for endocrine disruption.
8. This permit may be modified or, alternatively, revoked and reissued, after public notice and opportunity for hearing to incorporate revised water quality-based effluent limits relating to the permittee's submission of a complete application for a variance from the water quality criteria for cyanide and mercury.
9. This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to include effluent limitations for arsenic, cadmium, chromium, copper, nickel, lead, and zinc should they be found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the water quality criterion as contained under 327 IAC 2-1.

D. SCHEDULE OF COMPLIANCE FOR MERCURY AND CYANIDE

1. The permittee shall submit periodic written progress reports to the Compliance Evaluation Section, Office of Water Quality beginning nine (9) months after the effective date of the permit and every nine (9) months thereafter until the completion of this compliance schedule. Until a determination on the variance request is made, the progress report(s) shall include the information contained in paragraph 3 below. In the event IDEM denies the permittee's variance as requested for mercury and total cyanide before the first progress report is due, the first report shall also include a description of what would be necessary, including construction or changes to the local limits, for the permittee to meet the final effluent limitations for mercury and total cyanide. The new effluent limits for mercury and total cyanide are deferred until the earlier of (1) three years from the effective date of this permit, or (2) until completion of the necessary construction and/or changes in the local limits. Monitoring and reporting of mercury, amenable cyanide and total cyanide are required during the period of this compliance schedule.
2. If the permittee determines that construction and/or changes in the local limits are not required to meet the final limits for mercury or total cyanide within the thirty-six month period, the permittee shall immediately notify the Compliance Evaluation Section, Office of Water Quality (OWQ). Upon receipt of such notification by the OWQ, the final limitations for mercury and total cyanide will become effective.
3. Until the final limits for mercury or total cyanide become effective, the permittee shall continue to evaluate whether additional control technologies or pollution prevention measures exist to comply with the final effluent limitations or reduce the level of those pollutants currently being discharged to the sewer system or by the AWT plants. This evaluation shall be submitted to IDEM, OWQ, Compliance Evaluation Section every nine months beginning with the effective date of the permit.
4. Subject to the reopening clause in Part I.C.8, the permittee shall comply with all final effluent limitations no later than thirty-six (36) months from the effective date of the permit.
5. **If the permittee fails to comply with any date in the foregoing schedule by more than fourteen (14) days**, the permittee shall submit a written notice of the noncompliance to the Compliance Evaluation Section, Office of Water Quality describing the cause of noncompliance, any remedial action taken or planned, and the date by which the permittee will comply.

E. SCHEDULE OF COMPLIANCE FOR TOTAL RESIDUAL CHLORINE (TRC)

The permittee shall achieve compliance with the final effluent limits for TRC in accordance with the following schedule:

1. The permittee shall submit a progress report two (2) months from the effective date of the permit. The report must include a determination if construction is required to meet the final limits.
2. If construction is not required to meet the final limits for TRC within the twelve-month period, the permittee immediately shall notify the Compliance Evaluation Section, Office of Water Quality (OWQ). Upon receipt of such notification by the OWQ, the final limitations for TRC shall become effective. If a construction permit is required, a construction permit application (including plans and specifications) for complying with final requirements shall be submitted within four (4) months from the effective date of the permit.
3. Initiation of construction, if necessary, shall commence not later than eight (8) months from the effective date of the permit.
4. Construction shall be completed within eleven (11) months from the effective date of the permit.
5. The permittee shall comply with all final requirements no later than twelve (12) months from the effective date of the permit.
6. If the permittee fails to comply with any date in the foregoing schedule by more than fourteen (14) days, the permittee shall submit a written notice of noncompliance to the Compliance Evaluation Section, Office of Water Quality describing the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance with final requirements.

F. SCHEDULE OF COMPLIANCE FOR *E. COLI*

This Compliance Schedule is based on the approved Preliminary Engineering Report (PER) 3A in which the permittee is changing its primary method of disinfection from chlorination to ozonation. Chlorination (with dechlorination) will continue to be the secondary method of disinfection at the AWT plants after the installation of the ozonation units. The permittee shall achieve compliance with the final effluent limits for *E. coli* in accordance with the following schedule:

1. The permittee shall submit a progress report to the OWQ, Compliance Evaluation Section within 9 months from the effective date of the permit. This report shall describe the status of the implementation of the PER 3A in regard to the change in disinfection methods.
2. The design of the new ozonation disinfection system shall be finalized within 18 months from the effective date of the permit. The construction permit application (including plans and specifications), if required, shall be submitted within 18 months from the effective date of this permit.
3. Initiation of construction shall commence not later than 24 months from the effective date of the permit. The permittee shall submit a written progress report to the Compliance Evaluation Section, Office of Water Quality at this time.
4. Construction shall be completed within 35 months from the effective date of the permit. The permittee shall submit a written progress report to the Compliance Evaluation Section, Office of Water Quality when construction has been completed.
5. The permittee shall comply with all final requirements as soon as possible but no later than 36 months from the effective date of the permit. The permittee must notify the Data Management Section of the Office of Water Quality when the construction of the ozonation unit is completed and operational.
6. If the permittee fails to comply with any date in the foregoing schedule by more than fourteen (14) days, the permittee shall submit a written notice of noncompliance to the Compliance Evaluation Section, Office of Water Quality describing the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance with final requirements.
7. If the permittee has not finalized the design of the ozonation system by eighteen (18) months from the effective date of the permit, the permittee shall be required to immediately comply with the *E. coli* limitations during each disinfection season.

G. CHRONIC BIOMONITORING PROGRAM REQUIREMENTS

The 1977 Clean Water Act explicitly states, in Section 101(3) that it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited. In support of this policy the U.S. EPA in 1995 amended the 40 CFR 136.3 (Tables IA and II) by adding testing methods for measuring acute and short-term chronic toxicity of whole effluents and receiving waters. To adequately assess the character of the effluent, and the effects of the effluent on aquatic life, the permittee shall conduct Whole Effluent Toxicity Testing. Part 1 of this section describes the testing procedures, Part 2 describes the Toxicity Reduction Evaluation which is only required if the effluent demonstrates toxicity, as described in paragraph f.

1. Whole Effluent Toxicity Tests

Within 180 days of the effective date of the permit, the permittee shall initiate the series of bioassay tests described below to monitor the toxicity of the discharge from Outfall 006.

a. Bioassay Test Procedures and Data Analysis

- (1) All test organisms, test procedures and quality assurance criteria used shall be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms; Third Edition Section 13, Cladoceran (Ceriodaphnia dubia) Survival and Reproduction Test Method 1002.0; and Section 11, Fathead Minnow (Pimephales promelas) Larval Survival and Growth Test Method, (1000.0) EPA 600-4-91-002, July 1994 or most recent update.
- (2) Any circumstances not covered by the above methods, or that require deviation from the specified methods shall first be approved by the IDEM's Environmental Toxicology and Chemistry Section.
- (3) The determination of effluent toxicity shall be made in accordance with the Data Analysis general procedures for acute and chronic toxicity endpoints as outlined in Section 9, and in Sections 11 and 13 of the respective Test Method (1000.0 and 1002.0) of Short-term Methods of Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms (EPA-600-4-91-002), Fourth Edition, July 1994 or most recent update.

b. Types of Bioassay Tests

The permittee shall conduct a 7-day Cladoceran (Ceriodaphnia dubia) Survival and Reproduction Test and a 7-day Fathead Minnow (Pimephales promelas) Larval Survival and Growth Test on samples of the final effluent. All tests will be conducted on 24-hour composite samples of final effluent. All test solutions shall be renewed daily. On days three and five fresh 24-hour composite samples of the effluent collected on alternate days shall be used to renew the test solutions.

If, in any control, more than 10% of the test organisms die in 96 hours, or more than 20% of the test organisms die in 7 days, that test (control and effluent) shall be repeated. In addition, if in the Ceriodaphnia test the number of newborns produced per female or if 60% of females have less than three broods; and in the fathead minnow test if the mean dry weight in the control group is less than 25 mg, that test shall also be repeated. Such testing will determine whether the effluent affects the survival, reproduction, and/or growth of the test organisms. Results of all tests regardless of completion must be reported to IDEM.

c. Effluent Sample Collection and Chemical Analysis

- (1) Samples taken for the purposes of Whole Effluent Toxicity Testing, will be at a point that is representative of the discharge but prior to discharge. The maximum holding time for whole effluent is 36 hours for a 24 hour composite sample. Bioassay tests must be started within 36 hours after termination of 24 hour composite sample collection. Bioassay of effluent sampling may be coordinated with other permit sampling requirements as appropriate to avoid duplication.
- (2) Chemical analysis must accompany each effluent sample taken for bioassay test. The analysis detailed under Part I.A. should be conducted for the effluent sample. Chemical analysis must comply with approved EPA test methods.

d. Testing Frequency and Duration

The chronic toxicity tests specified in paragraph b above shall be conducted monthly for a period of three months and, if no toxicity is demonstrated as defined in paragraph f, the permittee may reduce the number of species tested to only include the species demonstrated to be most sensitive to the toxicity in the effluent and shall conduct chronic toxicity testing once every six months thereafter for the duration of this permit.

If toxicity is demonstrated as defined under paragraph f, the permittee is required to conduct a toxicity reduction evaluation (TRE) as specified in Section 2 below.

e. Reporting

- (1) Results shall be reported according to EPA 600/4-91-002, Section 10 (Report Preparation). Two copies of the completed report for each test shall be submitted to the Data Management Section of the IDEM no later than sixty days after completion of the test.
- (2) For quality control the report shall include the results of appropriate standard reference toxic pollutant tests for acute and chronic endpoints and historical reference toxic pollutant data with mean values and appropriate ranges for the

respective test species Ceriodaphnia dubia and Pimephales promelas.
Biomonitoring reports must also include copies of Chain-of-Custody Records and Laboratory raw data sheets.

- (3) Statistical procedures used to analyze and interpret toxicity data including critical values of significance used to evaluate each point of toxicity should be described and included as part of the biomonitoring report.

f. Demonstration of Toxicity

- (1) Acute toxicity will be demonstrated if the effluent is observed to have LC₅₀ of less than 100% effluent for the test organism in 48 and 96 hours for Ceriodaphnia dubia or Pimephales promelas, respectively.
- (2) Chronic toxicity will be demonstrated if the No Observed Effect Level (NOEL) is less than 92% for Ceriodaphnia dubia or Pimephales promelas.
- (3) If acute or chronic toxicity is found in any of the tests specified above, a confirmation toxicity test using the specified methodology and same test species shall be conducted within two weeks of the completion of the failed test to confirm results. If any two tests, including any and all confirmation tests, indicate the presence of toxicity, the permittee must begin the implementation of a Toxicity Reduction Evaluation (TRE) as described below. The whole effluent toxicity tests required above may be suspended while the TRE is being conducted.

2. Toxicity Reduction Evaluation (TRE) Schedule of Compliance

The development and implementation of a TRE (including any post-TRE biomonitoring requirements) is only required if toxicity is demonstrated as defined by Paragraph 1.f.

a. Development of TRE Plan

Within 90 days of determination of toxicity, the permittee shall submit plans for an effluent toxicity reduction evaluation (TRE) to the Data Management Section of the IDEM. The TRE plan shall include appropriate measures to characterize the causative toxic pollutants and the variability associated with these compounds. Guidance on conducting effluent toxicity reduction evaluations is available from EPA and from the EPA publications listed below:

- (1) Methods for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characterization Procedures, Second Edition
(EPA/600/6-91/003), February 1991.

Phase II Toxicity Identification Procedures (EPA 600/3-88/035), February 1989.

Phase III Toxicity Confirmation Procedures (EPA/600/3-88/036), February 1989.

(2) Methods for Chronic Toxicity Identification

Phase I Characterization of Chronically Toxic Effluents EPA/600/6-91/005, June 1991.

(3) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070), March 1989.

(4) Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants (EPA/600/2-88/062), April 1989.

b. Conduct the Plan

Within 30 days after submission of the TRE plan to the IDEM, the permittee must initiate an effluent TRE consistent with the TRE plan. Progress reports shall be submitted every 90 days to the Data Management and Compliance Evaluation Sections of the Office of Water Quality (OWQ) beginning 90 days after initiation of the TRE study.

c. Reporting

Within 90 days of the TRE study completion, the permittee shall submit to the Data Management and Compliance Evaluation Sections of the Office of Water Quality (OWQ) the final study results and a schedule for reducing the toxicity to acceptable levels through control of the toxic pollutant source or treatment of whole effluent.

d. Compliance Date

The permittee shall complete items a, b, and c from Section 2 and reduce the toxicity to acceptable levels as soon as possible but no later than three years after the date of determination of toxicity.

e. Post-TRE Biomonitoring Requirements (Only Required After Completion of a TRE)

After the TRE, the permittee shall conduct monthly toxicity tests with 2 or more species for a period of three months. Should three consecutive monthly tests demonstrate no toxicity, the permittee may reduce the number of species tested to only include the species demonstrated to be most sensitive to the toxicity in the effluent, and conduct chronic tests every six months for the duration of the permit.

PART II

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all conditions of this permit in accordance with 327 IAC 5-2-8(1) and all applicable requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application. In the event of a permit violation and/or applicable regulation, the City of Indianapolis and/or WREP may be held liable.

2. Duty to Mitigate

In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Duty to Provide Information

In accordance with 327 IAC 5-2-8(4)(B) and 40 CFR 122.41(h), the permittee shall furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. In accordance with 327 IAC 5-2-8(7)(B), the permittee shall also furnish to the Commissioner, upon request, copies of records required to be kept by this permit.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to request the application. The application must be submitted at least 180 days before the expiration date of this permit. The Commissioner may grant permission to submit an application less than 180 days in advance of the expiration date of this permit but no later than the permit expiration date. As required under 327 IAC 5-2-3(g)(1) and (2), POTWs with design influent flows equal to or greater than one million (1,000,000) gallons per day and POTWs with approved or that are required to develop a pretreatment program, will be required to provide the results of whole effluent toxicity testing as part of their NPDES renewal applications.

5. Transfers

The City of Indianapolis and its contract operator, White River Environmental Partnership, are both listed as permittees on this permit. If this contractual relationship is terminated, the City of Indianapolis becomes the sole permittee. The City of Indianapolis must notify IDEM if it contracts with another person other than an employee of the City to operate the facility. In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except after notice to the Commissioner pursuant to 327 IAC 5-2-6(c). The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

6. Permit Actions

In accordance with 327 IAC 5-2-8(4)(A), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or an invasion of personal rights, nor any infringement of federal, state, or local laws or regulations as stated in 327 IAC 5-2-8(6).

8. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application or such provision to other circumstances and the remainder of this permit shall not be affected thereby.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

10. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

11. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30 and 327 IAC 5-2-20, any person who violates a permit condition implementing Sections 301, 302, 306, 307, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who intentionally, knowingly, or recklessly violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 1 year, or both. If the conviction is for a violation committed after a first conviction of such person under this provision, punishment shall be a fine of not more than one hundred thousand dollars (\$100,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

Except as provided in permit conditions on "Bypass of Treatment Facilities," Part II.B.2, and "Upset Conditions," Part II.B.3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

12. Toxic Pollutants

Notwithstanding Part II.C.3, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5).

13. Containment Facilities

When cyanide or cyanogen compounds are used in any of the processes at this facility, the permittee shall provide approved facilities for the containment of any losses of these compounds in accordance with the requirements of 327 IAC 2-2-1.

14. Operator Certification

The permittee shall have the wastewater treatment facilities under the direct supervision of an operator certified by the Commissioner as required by IC 13-18-11 and 327 IAC 5-22 (formerly 327 IAC 8-12-3).

15. Construction Requirements

The permittee shall not construct, install, or modify any water pollution control facility except in accordance with 327 IAC 3. Upon completion of construction of any capital improvement projects subject to public bidding requirements under state law, the permittee must notify the Compliance Evaluation Section of the Office of Water Quality in writing. The notification shall include a detailed description of the project.

16. Inspection and Entry

In accordance with 327 IAC 5-2-8(7), the permittee shall allow the Commissioner, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
and
- d. sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized , any substances or parameters at any location.

B. MANAGEMENT REQUIREMENTS

1. Facility Operation, Maintenance and Quality Control

Pursuant to 327 IAC 5-2-8, all waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. In accordance with 327 IAC 5-2-8(8), the permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for collection and treatment that are:
 1. installed or used by the permittee; and
 2. necessary for achieving compliance with the terms and conditions of the permit.

Neither 327 IAC 5-2-8(8), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit.

- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.
- c. Maintenance of all waste collection, control, treatment, and disposal facilities that results in degradation of effluent quality shall be scheduled during noncritical water quality periods and shall be carried out in a manner approved by the Commissioner.
- d. Any extensions to the sewer system must continue to be constructed on a separated basis. Plans and specifications, when required, for extension of the sanitary system must be submitted to the Facility Construction Section, Office of Water Quality in accordance with 327 IAC 3-2-1. There shall also be an ongoing preventative maintenance program for the sanitary sewer system.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(11):

- a. Terms as defined in 327 IAC 5-2-8(11)(A):
 - (1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be

expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- b. Bypasses, as defined herein, are prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless:
- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined herein;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.B.2.d; or
 - (4) The condition under Part II.B.2.f below is met.
- c. In accordance with 327 IAC 2-6.1, bypasses which result or may result in death, acute injury or illness to animals or humans are subject to the "Spill Reporting Requirements" in Part II.C.9 of this permit.
- d. The permittee must provide the Commissioner with the following notice:
- (1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. Such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.
 - (2) The permittee shall orally report an unanticipated bypass within 24 hours of becoming aware of the bypass event. The permittee must also provide a written report within five (5) days of the time the permittee becomes aware of the bypass event. The written report must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the event.
- e. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.b. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

- f. The permittee may allow any bypass to occur that does not cause a violation of the effluent limitations in the permit, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.B.2.d and e of this permit.
- g. The wastewater treatment plant has the following bypass point (outfall):

<u>Outfall No.</u>	<u>Location</u>	<u>Receiving Stream</u>
007	Belmont Primary Effluent Bypass	White River

Primary Effluent Bypass A primary effluent bypass exists after the primary clarifiers and prior to the biological roughing towers. Primary effluent from this bypass discharges over fixed weirs located in the Primary Effluent Diversion Structure and enters the White River via Outfall 007.

- h. The bioroughing towers and oxygen nitrification facilities listed in the Treatment Facility Description will be treated as one combined unit treatment process for the purpose of providing secondary / biological treatment in order to give the permittee flexibility to produce the best quality effluent possible. Diversions around individual components of this combined unit will not be considered bypasses provided: (1) effluent quality is not adversely affected, (2) the permittee maximizes the treatment capability of the plant during wet weather events, and (3) the permittee maintains the records required under subdivision (i) below. Diversions of flow around all the units within that combined unit treatment process shall be considered bypasses subject to Part II.B.2.a through f of this permit.
- i. For each day that a diversion occurs, the permittee shall maintain records that document that the criteria listed in subdivision (h) (1) and (2) above have been satisfied. The records must include documentation of the portion of each unit treatment process utilized to comply with the above criteria. The records shall include the time that an individual component of the unit treatment process is removed from service or placed back into service.
- j. Within sixty (60) days from the effective date of the permit, the permittee must submit standard operating procedures (SOPs) to the Compliance Branch documenting the use of the unit treatment processes both during wet and dry weather conditions. These SOPs must include the conditions in which partial diversion of flow occurs.
- k. The partial diversion of flow around the effluent filters is authorized provided:

The filters are utilized to the maximum extent possible, taking into consideration the quality of the secondary effluent;

The effluent quality does not result in exceedances of the effluent limitations contained in Part I of this permit;

The permittee maintains the records required under subdivision (i) above. This information must also include documentation of the filter backwash rates before and after the partial diversion; and

When flow into the plant exceeds 120 MGD after the filter rehabilitation is completed as defined in PER 3A and approved by IDEM on June 26, 2001.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(12):

- a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this subsection, are met.
- c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:
 - (1) An upset occurred and the permittee has identified the specific cause(s) of the upset, if possible;
 - (2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures;
 - (3) The permittee complied with any remedial measures required under "Duty to Mitigate," Part II.A.2; and
 - (4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or the "Spill Reporting Requirements," Part II.C.9, whichever is applicable.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

- a. Collected screenings, slurries, sludges, and other such pollutants shall be disposed of in accordance with methods established in 329 IAC 10 and 327 IAC 6.1, or another method approved by the Commissioner.
- b. The permittee shall comply with existing federal regulations governing solids disposal, and with applicable 40 CFR Part 503, the federal sludge disposal regulation standards.
- c. The permittee shall notify the Commissioner prior to any changes in sludge use or disposal practices.

5. Power Failures

In accordance with 327 IAC 5-2-10, in order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, or
- b. shall halt, reduce or otherwise control all discharge in order to maintain compliance with the effluent limitations and conditions of this permit upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(10)(F) any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by advance notice to the Commissioner of such changes. Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited. Additionally, if the permittee makes any significant changes to the treatment facility, including the change of disinfection method to ozonation, the permittee must request a permit modification to update the treatment facility description.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(9) and 327 IAC 5-2-13, monitoring results shall be reported at the intervals and in the form specified in "Data On Plant Operation," Part I.B.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(10), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time the permittee becomes aware of such noncompliance:

- a. any unanticipated bypass which exceeds any effluent limitation in the permit;
- b. any noncompliance which may pose a significant danger to human health or the environment. (Reports under this item must be made as soon as the permittee becomes aware of the noncomplying circumstances);
- c. any upset (as defined in Part II.B.3 above) that exceeds any effluent limitations in the permit;
- d. any discharge from the sanitary sewer system;
- e. any dry weather discharge from a combined sewer overflow which is identified in this permit; and,
- f. violation of a maximum daily discharge limitation for any of the following toxic pollutants:

Cyanide
Mercury

The permittee can make the oral reports by calling 317/232-8795 during regular business hours or by calling 317/233-7745 (888/233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the permittee may submit a "Bypass Fax Report" to IDEM at 317/232-8637. If a complete fax submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the fax report will satisfy both the oral and written reporting requirements.

4. Other Noncompliance

Pursuant to 327 IAC 5-2-8(10)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting Requirements" in Part II.C.3 or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in Part II.C.3. of this permit.

5. Other Information

Pursuant to 327 IAC 5-2-8(10)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

Within 120 days of the effective date of this permit, the permittee shall submit to the Compliance Branch a detailed description of the operational capacity (hydraulic and organic loading) of each unit process of the treatment system. This description must also clearly identify how the permittee will operate the AWT plant during wet weather and dry weather operations. In addition the permittee shall submit a process flow schematic which must include all internal piping clearly identifying any and all diversions from each the unit treatment processes.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(14):

- a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

- (1) For a corporation: by a principal executive defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making functions for the corporation or the manager of one or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars (25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a federal, state, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.
- b. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described above.
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - (3) The authorization is submitted to the Commissioner.
- c. Certification. Any person signing a document identified under paragraphs a and b of this section, shall make the following certification:

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

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(14) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine or not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

9. Spill Reporting Requirement

Pursuant to 327 IAC 2-6.1, any discharge of pollutants to waters of the State from the permittee's collection system or wastewater treatment plant which results or may result in death, acute injury, or illness to any humans, animals, or aquatic life must be reported as soon as possible, but within two (2) hours after the permittee becomes aware of the occurrence. (This includes any discharge regardless of whether or not it is authorized by the NPDES permit).

Any discharge of pollutants which enters waters of the State from the permittee's collection system or wastewater treatment plant and which is not under the jurisdiction of an NPDES permit must also be reported within two (2) hours after the permittee becomes aware of the occurrence. [Note: Only those outfalls which are specifically identified in Part I, Part II.B.2.g, and/or Attachment A or B of this permit are considered to be under the jurisdiction of this NPDES permit]. Any unauthorized discharge of pollutants from the collection system which does not reach waters of the State must be reported to the IDEM in accordance with the "Twenty-Four Hour Reporting Requirements" in Part II.C.3.

The permittee is required to notify IDEM's Office of Land Quality, Emergency Response Section at 317/233-7745 or 888/233-7745 (toll-free within Indiana) of any discharges which meet the criteria of 327 IAC 2-6.1.

PART III

REQUIREMENT TO OPERATE
A PRETREATMENT PROGRAM

A. CONDITIONS

The permittee, hereinafter referred to as the "Control Authority," is required to operate its approved industrial pretreatment program approved on January 11, 1985 and modified as approved on March 3, 1994. To ensure the program is operated as approved and consistent with 327 IAC 5-16 through 5-21, the following conditions and reporting requirements are hereby established. The Control Authority (CA) shall:

1. **LEGAL AUTHORITY** - The CA shall develop, enforce and maintain adequate legal authority in its Sewer Use Ordinance (SUO) to fully implement the pretreatment program in compliance with State and local law. As part of this requirement, the CA shall develop and maintain local limits as necessary to implement the prohibitions and standards in 327 IAC 5-18. The Control Authority shall perform a technical reevaluation of local limits within twelve (12) months of the effective date of this permit.
2. **PERMIT ISSUANCE** - In accordance with 327 IAC 5-19-3(1), the CA is required to issue/reissue permits to Significant Industrial User(s) (SIU) as stated in the SUO. The Control Authority must issue permits to new SIUs prior to the commencement of discharge. A SIU is defined in the SUO.
3. **INDUSTRIAL COMPLIANCE MONITORING** - The CA is required to conduct inspection, surveillance, and monitoring activities to determine SIU compliance status with the approved program and the SUO independent of data supplied by the SIU. SIU compliance monitoring performed by the CA will be conducted in accordance with the program plan or yearly program plan. SIUs will be inspected once per year, at minimum.
4. **ENFORCEMENT** - The CA is required to initiate the appropriate enforcement action against a SIU violating any provision of the SUO and/or discharge permit in accordance with the Enforcement Response Procedures (ERP) adopted by the CA. The CA must investigate violations by collecting and analyzing samples and collecting other information with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions in accordance with 40 CFR 403.8(f)(1)(iii) and 327 IAC 5-19-3(1)(F).
5. **ANNUAL REPORT** - The CA is required to submit an annual report to the IDEM, OWQ, Compliance Branch by April 1 of each year. The annual report will be submitted in accordance with the State supplied "POTW PRETREATMENT PROGRAM ANNUAL REPORT GUIDANCE."
6. **SIU QUARTERLY NONCOMPLIANCE REPORT** - The CA is required to report the compliance status of each SIU quarterly. The report is due by the 28th of the following

months: May, August, November, and February of each year. The report shall include a description of corrective actions that have or will be taken by the CA and SIU to resolve the noncompliance situations. This report is to be sent to the Compliance Branch of the Office of Water Quality.

7. PUBLIC PARTICIPATION AND ANNUAL PUBLISHING OF SIUs IN SIGNIFICANT NONCOMPLIANCE - The CA is required to comply with the public participation requirements under 40 CFR 25 and 327 IAC 5-19-3(2)(L). The CA must publish annually, by January 28, in the largest daily newspaper in the area, a list of SIUs that have been in significant noncompliance (SNC) with the SUO during the calendar year. The CA shall include in the ANNUAL REPORT a list of the SIUs published along with the newspaper clipping.
8. CONFIDENTIALITY - The CA is required to comply with all confidentiality requirements set forth in 40 CFR 403.14, as well as the procedures established in the SUO.
9. RECORDS RETENTION - The CA shall retain any pretreatment reports from an industrial user a minimum of three (3) years and shall make such reports available for inspection and copying by IDEM or the U.S. EPA. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the industrial user or the operation of the Belmont AWT Plant's pretreatment program or when requested by IDEM or the U.S. EPA.
10. PROGRAM RESOURCES - Pursuant to 327 IAC 5-19-3(3), the CA shall maintain sufficient resources and qualified personnel to carry out the pretreatment program requirements.
11. INTERJURISDICTIONAL AGREEMENTS - The CA must maintain sufficient legal authority to ensure compliance with all applicable pretreatment limits and requirements by all SIUs discharging to the Belmont AWT Plant, including SIUs within governmental jurisdictions outside the immediate jurisdiction of the Belmont AWT Plant. The CA must maintain the interjurisdictional agreements necessary to ensure full compliance by SIUs located within other jurisdictions.

B. POLLUTANT LOADING STUDY

This study, which shall be conducted for both the Belmont and Southport AWT plants, is required to identify sources of mercury, cyanide, cadmium, chloride, fluoride, sulfate and total dissolved solids within the entire sewage collection and treatment systems. The study in identifying sources of mercury shall include sampling locations of representative sources of mercury including: hospitals; universities; industrial research facilities both past and present; and other potential sources of mercury. The permittee shall develop a sampling and analysis plan for mercury, which shall be subject to the requirements as set forth in Part III.B.1.b below.

1. DETERMINING THE LOADINGS

a. General Conditions

- (1) All sampling required below will be by 24-Hr. Composite except for drinking water and nonpoint sources which shall be by grab sample.
- (2) Analysis will be performed for all of the pollutants listed above.
- (3) Flow measurement shall be taken at each sample site.

b. Mercury Sampling and Analysis Plan

- (1) The mercury sampling and analysis plan (hereinafter referred to as the MSAP) for both AWT plants shall be submitted to the IDEM, OWQ, Compliance Evaluation Section, within ninety (90) days of the effective date of this permit.
- (2) The purpose of the MSAP is to identify representative sources of mercury that discharge into the sewage collection and treatment system and to quantify the amount of mercury being discharged by each type of source.
- (3) The MSAP shall include but shall not be limited to the following:
 - (a) A proposal to identify each type of present or past actual or potential source of mercury (including dentist offices, laboratories, research facilities, hospitals, schools, universities, etc.) sufficient to yield a number of representative sources for mercury sampling that may be used to meet the purpose of the MSAP
 - (b) A methodology for verifying (by means of monitoring and sampling or other means acceptable to IDEM) any studies used by the permittee to determine types or numbers of sources of mercury discharges or amounts of mercury discharged.
 - (c) An implementation plan to do the requisite samples at each present or potential source or representative source of mercury as identified in the MSAP.
 - (d) The use of EPA Method 245.1 or 245.2 (and 245.7 after it has been approved by EPA) as well as the development of a case-specific MDL for EPA Method 245.1 or 245.2 in those cases when the MDL is higher than 0.2 ug/l and a detailed description of how the permittee will quantify the concentration of mercury when the result is below the MDL for EPA Method 245.1 or 245.2 or justification of why the quantification is not needed.

(e) An explanation of how the MSAP will result in a credible and statistically valid means of determining the amount of mercury loading entering the sewage and treatment collection system from the identified sources.

(f) Time frames for MSAP implementation.

(4) The MSAP for both plants must be approved by IDEM prior to its implementation. If IDEM disapproves the MSAP, the permittee shall, within thirty (30) days of written notification of such disapproval, resubmit the plan for IDEM approval based upon IDEM's recommendations.

(5) The permittee must begin implementation of the MSAP as approved by IDEM in accordance with the time frames set out in the MSAP.

c. Sources of Pollutants

There are at least four potential sources that the permittee should evaluate to determine the total pollutant loading entering the Belmont and Southport sewage treatment plants: domestic, nonpoint, recycle streams (supernatant return) and industrial.

1. Domestic Sources: Conduct a study of the Belmont and Southport AWT Plants' sewer systems to determine the pollutant loading to the sewage plants from nonindustrial sources.

(a) Sample and analyze sewers containing domestic waste only. The permittee shall provide a schematic of the sewage system that identifies the location of the industrial users and where the sewer samples were taken. Sampling shall be performed two times a month at two different sites for a period of six months.

(b) Sample and analyze the City supplied drinking water once per month for a period of six months.

2. Nonpoint Source Study: This part is to be performed only when part or all of the sewer system is combined.

Sample and analyze storm water runoff from selected areas, generally parking lots, streets, etc. These areas shall also be identified on the map. Sampling shall be performed during periods of rainfall. Sampling shall be performed for a period of six months with a minimum of one sample per month from each site chosen. There shall be no less than three sites sampled.

3. Industrial Source Study:

Calculate the industrial loading from data generated in the compliance sampling program and IU self monitoring reports.

4. Recycle Streams: This includes all wastewater returned to the head of the plant.

Sample and analyze each recycle stream or a combined stream two times a month for a period of six months.

2. REPORT ON THE STUDY

A report shall be prepared containing all of the sampling and analytical data collected. The report shall be submitted in the format contained in the State guidance "POLLUTANT LOADING STUDY REPORT GUIDANCE." The report shall summarize the information and describe the City's evaluation of the results. The report shall include a projected schedule for actions needed to attain compliance with the final effluent limitations. The report shall also determine the level of reduction of pollutant loading from industrial sources necessary to bring the Belmont and Southport AWT Plants into compliance, taking into account the amount of pollutant loading reductions that can be achieved from domestic and nonpoint sources. The Office of Water Quality will provide the Control Authority with the necessary assistance to complete this evaluation.

The report shall consist of a cover letter, cover page, table of contents, summary of the results, the evaluation, maps identifying sampling sites, tables listing the analytical results and tables listing the pounds of pollutants from the percentage attributable to each source. The results of this study shall be due twenty-four months after the effective date of this permit and shall be submitted to the attention of the IDEM, OWQ, Compliance Branch.

ATTACHMENT A

Precipitation Related Combined Sewer Overflow Discharge Authorization Requirements

I. Discharge Requirements

A. During the period beginning on the effective date of the permit and lasting until the expiration date, the permittee is authorized to discharge from outfalls listed below subject to the requirements of this Attachment and other pertinent provisions.

B. Combined Sewer Overflows are point sources subject to both technology-based and water quality-based requirements of the Clean Water Act and state law. Discharges from the CSOs listed herein shall not cause or contribute to violations of water quality standards* or to the impairment of designated or existing uses.

** Refer to the Schedule of Compliance in Part VIII of Attachment A.*

C. Discharge from the CSO outfalls herein shall not cause receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, foam, or scum:

1. that will settle to form putrescent or otherwise objectionable deposits;
2. that are in amounts sufficient to be unsightly or deleterious;
3. that produce color, visible oil sheen, odor, or other conditions in such a degree as to create a nuisance;
4. which are in amounts sufficient to be acutely toxic to, or otherwise severely injure or kill aquatic life, other animals, plants, or humans; and
5. which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

<u>Overflow Number</u>	<u>Location</u>	<u>Receiving Water</u>
008	Belmont Raw Wastewater Overflow	White River
011	Minnesota St. & Pershing Ave	Big Eagle Creek
012	Raymond St. & West St.	White River
013	Meridian St. & Adler St.	White River
014	Kentucky Ave. & York St.	White River
015	Southern Ave. & Manker Ave.	Bean Creek
016	Shelby St. & Willow Dr.	Bean Creek
017	Boyd Ave. & Nelson Ave.	Bean Creek
019	PLRPND & Meridian St.	Pleasant Run
020	PLRPND & Pennsylvania St.	Pleasant Run
021	PLRPND & Ransdell St.	Pleasant Run
022	PLRPSD & Raymond St.	Pleasant Run
023	PLRPND & Iowa St.	Pleasant Run
025	PLRPND & Shelby St.	Pleasant Run
027	PLRPSD & Cottage Ave.	Pleasant Run
028	PLRPSD & State St.	Pleasant Run

029	Orange St. & Randolph St.	Pleasant Run
030	PLRPSD & Randolph St.	Pleasant Run
031	PLRPSD & Churchman Ave.	Pleasant Run
032	Morris St. & Warman Ave.	Big Eagle Creek
033	Vermont St. & Somerset Ave.	Little Eagle Creek
034	Michigan St. & Dorman St.	Pogues Run
035	Arsenal Ave. & 10th St.	Pogues Run
036	Nowland Ave. & Tecumseh St.	Pogues Run
037	Washington St. & Geisendorff St.	White River
038	New York St. & Agnes St.	White River
039	New York St. & Beauty Ave.	White River
040	New York St. & Koehne St.	White River
041	WRPWD & Michigan St.	White River
042	Saint Clair St. & Lynn Ave.	White River
043	Harding St. & Waterway Blvd.	White River
044	Waterway Blvd. & Riverside Dr.	White River
045	WRPWD & Belmont Ave.	White River
046	Lafayette Rd. & 19th St.	White River
049	Stadium Dr & Fall Creek	Fall Creek
050	Fall Creek Blvd. & Burdsal Pkwy.	Fall Creek
50A	Northwestern Ave & 24th St.	Fall Creek
051	Capitol Ave. & 22nd St.	Fall Creek
052	Fall Creek Blvd. & Boulevard Pl.	Fall Creek
053	FCPND & Illinois St.	Fall Creek
054	FCPND & Meridian St.	Fall Creek
055	28th St. & Talbot St.	Fall Creek
057	28th St. & Washington Blvd.	Fall Creek
058	28th St. & New Jersey St.	Fall Creek
059	FCPND & Central Ave.	Fall Creek
060	Sutherland Ave. & Central Ave.	Fall Creek
061	FCPND & Ruckle St.	Fall Creek
062	Guilford Ave. & 30th St.	Fall Creek
063	FCPND & 32nd St.	Fall Creek
63A	FCPND & 32nd St.	Fall Creek
064	Winthrop Ave. & 34 St.	Fall Creek
065	Sutherland Ave. & 34th St.	Fall Creek
066	Fall Creek Blvd. & Balsam Ave.	Fall Creek
072	PLRPND & Saint Peter St.	Pleasant Run
073	PLRPND & Keystone Ave.	Pleasant Run
074	PLRPND & Prospect St.	Pleasant Run
075	PLRPND & Southeastern Ave.	Pleasant Run
076	PLRPND & English Ave.	Pleasant Run
077	PLRPND & Sherman Dr.	Pleasant Run
078	PLRPND & Brookville Rd.	Pleasant Run
080	PLRPND & Wallace Ave.	Pleasant Run
081	PLRPND & Riley Ave.	Pleasant Run
083	Hawthorne Ln. & Lowell Ave.	Pleasant Run

084	PLRPND & Michigan St.	Pleasant Run
085	PLRPND & Ritter Ave.	Pleasant Run
086	PLRPND & Ritter Ave.	Pleasant Run
087	PLRPND & Audubon Rd.	Pleasant Run
088	PLRPND & Graham Ave.	Pleasant Run
089	PLRPND & Arlington Ave.	Pleasant Run
090	Lowell Ave. & Sheridan Ave.	Pleasant Run
091	PLRPSD & Kenmore Rd.	Pleasant Run
092	PLRPSD & Ridgeview Dr.	Pleasant Run
095	BPND & Coyner Ave.	Pogues Run
096	BPSD & Nowland Ave.	Pogues Run
097	BPSD & Keystone Ave.	Pogues Run
098	Tacoma Ave. & Nowland Ave.	Pogues Run
099	BPSD & Temple Ave.	Pogues Run
100	BPSD & Rural St.	Pogues Run
101	Sherman Dr. & BPND	Pogues Run
102	Forest Manor Ave. & 19th St.	Pogues Run
103	Sherman and Denwood Drs. Lift Station	Meadow Brook
106	PLRPND & Orange St.	Pleasant Run
107	PLRPND & Saint Paul St.	Pleasant Run
108	PLRPSD & Saint Paul St.	Pleasant Run
109	PLRPND & Churchman St.	Pleasant Run
115	Henry St. & Kentucky Ave.	Pogues Run
116	Meikel St. & Ray St.	White River
117	Southern Ave. & White River	White River
118	WRPED & West St.	White River
119	PLRPSD & Beecher St.	Pleasant Run
120	PLRPSD & Southern Ave.	Pleasant Run
125	Meridian St. & South St.	Pogues Run
127	1325 S. State St.	Pleasant Run
128	Senate Ave. & Merrill St.	Pogues Run
129	Meridian St. & Merrill St.	Pogues Run
130	Manual High School	Pleasant Run
131	Fall Creek Blvd. & Capitol Ave.	Fall Creek
132	FCPND & Pennsylvania St.	Fall Creek
133	Market St. & Pine St.	Pogues Run
135	Orchard Ave. & 39th St.	Fall Creek
136	New York St. & Dorman St.	Pogues Run
137	Pine St. & Ohio St.	Pogues Run
138	College Ave. & Washington St.	Pogues Run
A38	Davidson St. & Washington St.	Pogues Run
141	Winthrop Ave. & 38th St.	Fall Creek
142	College Ave. & 38th St.	Fall Creek
143	Forest Manor Ave. & 21st St.	Pogues Run
145	Raymond St. & Kentucky Ave.	Big Eagle Creek

147	WRPWD & Vermont St.	White River
148	PLRPND & Madison Ave.	Pleasant Run
149	PLRPSD & Garfield Dr.	Pleasant Run
150	PLRPND & Raymond St.	Pleasant Run
151	PLRPND & Beecher St.	Pleasant Run
152	Pine St. & Ohio St.	Pogues Run
153	Illinois Ave. & Merrill St.	Pogues Run
154	PLRPND & Michigan St.	Pleasant Run
155	Pennsylvania St. & 54th St.	White River
156	Capitol Ave. & Westfield Blvd.	White River
205	Boulevard Pl. & Westfield Blvd.	White River
210	Indiana Ave. & 10th St.	Fall Creek
213	2900 N. Hillside	Fall Creek
216	Crittenden Ave. & 42nd St.	Fall Creek
217	Gadsden St. & Lyons Ave.	State Ditch
218	Gadsden St. & Fleming St.	State Ditch
223	Victoria St. & Warman Ave.	Big Eagle Creek
224	PLRPND & Washington St.	Pleasant Run
226	PLRPND & Colorado Ave.	Pleasant Run
227	5700 Emich	Pleasant Run
228	Michigan St. & Graham Ave.	Pleasant Run
229	PLRPND & Arlington Ave.	Pleasant Run
235	Shelby St. & Markwood Ave.	Lick Creek
275	4945 S. Foltz	White River

PLRPND	Pleasant Run Parkway North Drive
PLRPSD	Pleasant Run Parkway South Drive
WRPWD	White River Parkway West Drive
WRPED	White River Parkway East Drive
FCPND	Fall Creek Parkway North Drive
BPND	Brookside Parkway North Drive
BPSD	Brookside Parkway South Drive

- D. Dry weather discharges from any portion of the collection system are prohibited. If a dry weather discharge occurs, the permittee shall notify the OWQ by phone within 24 hours and in writing within five days of the occurrence. The correspondence shall include the duration and cause of the discharge as well as the remedial action taken to end the discharge. Under certain conditions a discharge from the permittee treatment plant or collection system may require notification to the Office of Land Quality, Emergency Response Section at 888/233-7745 pursuant to 327 IAC 2-6.1.

- E. Note: Wet weather discharges are defined as a combination of sanitary flow, industrial flow, infiltration from groundwater and storm water flow, including snow melt or as discharges caused by the receiving stream being at or above the established flood stage.
- F. Note: Dry weather flow is defined in a combined sewer as a combination of domestic sewage, groundwater infiltration, commercial and industrial waste waters, and any other non-precipitation related flows. Discharges that occur because the receiving stream's elevation is at or above the established flood stage are not considered dry weather discharges.

II. Monitoring Report Requirements

- A. The permittee has developed a hydraulics model of its sewer collection system. Said model shall generate continuous volumes and discharges from each permitted outfall listed in Part I.C of this Attachment A. The permittee shall report those volumes and discharges, as produced by the hydraulics model to the IDEM, OWQ, Compliance Evaluation Section semiannually with the first report to be filed six months after the effective date of the permit.
- B. Within 180 days of the effective date of this permit, the permittee shall submit to the IDEM, OWQ, Compliance Branch a Hydraulics Model Calibration and Verification Plan (HMCVP) for IDEM's approval or denial. The HMCVP shall contain the frequency and method of verifying and calibrating the hydraulics model. In no event shall the HMCVP contain a frequency or method of verification or calibration that fails to incorporate adequate actual outfall monitoring or a means of addressing significant changes in the sewer collection or treatment system or the flow entering the sewer collection or treatment system.
- C. In order to calibrate and verify the hydraulics model prior to submission and approval by IDEM of the HMCVP, the permittee shall continuously monitor the volume and duration of all combined sewer overflow discharges at CSO Numbers 039, 045, 053, 055, 100, 125, 108, 008, 042, 117, 118, 051, 065, 066, 101, 143, 016, 084, and 145. The permittee also shall monitor all CSO outfalls listed in Part I.C of this Attachment A on a daily basis to determine whether or not a discharge has occurred. The results of the monitoring required above shall be reported to the IDEM, OWQ, Compliance Branch on a monthly basis consistent with Part I.B.3 of this permit. Consistent with the HMCVP, the permittee may submit a written request to IDEM to modify or eliminate specific monitoring locations for IDEM's approval or denial.
- D. Upon IDEM's written approval of the use of the hydraulics model, CSO discharge data generated by the model may be used by IDEM or the permittee to create a rebuttable presumption of compliance or noncompliance with any applicable provision of this permit. (However, nothing in this permit precludes the use of any other evidence to establish whether or not a CSO discharge has occurred or the circumstances surrounding it.)

All submittals under this provision shall be subject to the reporting requirements of this permit including, but not limited to, Part II, Sections C.6 ("Signatory Requirements"), C.7 ("Availability of Reports"), and C.8 ("Penalties for Falsification of Reports").

III. Stream Reach Characterization and Evaluation Report

The permittee has submitted a Stream Reach Characterization and Evaluation Report (SRCER) dated March 2000 to IDEM.

The SRCER is required to include the following information compiled over the period of the study:

- A. amount and date of rainfall events;
- B. frequency and duration of CSO events;
- C. a characterization of CSO impacts on the receiving stream(s) including:
 - 1. an instream sampling regimen for both dry weather conditions and for a variety of wet weather events;
 - 2. a characterization of sensitive CSO outfalls; and
 - 3. an identification of other watershed contributors (landfills, non-point sources,);
- D. a collection system evaluation to determine the effectiveness of the implemented CSO controls from the CSO Operational Plan;
- E. bacteria & health alerts;
- F. fish kills;
- G. toxic or hazardous spills;
- H. overflow volume of monitored overflow points;
- I. measures of success quantified up to the time of the study and throughout the study period (i.e. reduction in the frequency and duration of discharges, elimination of outfalls, successes of the pollution prevention program such as tons of solid waste material, used motor oil, and toxic material recycled, etc); and
- J. Fish Consumption Advisories and Bacteria/Health Alerts issued by any Federal, multi-state, State, or local governmental agency. Descriptions of the type and duration of advisory or alert and the cause, if known, shall be included. This information may be available from the Office of Land Quality - Emergency Response Section, the Indiana Department of Natural Resources, the Ohio River Valley Water Sanitation Commission (ORSANCO), the United States Environmental Protection Agency (EPA) or State or County Health Departments.

Within the SRCER, the permittee shall make a recommendation as to the proper course of action (i.e. continued use of best operation and maintenance or construction). This recommendation shall include a discussion of different alternatives, their impacts, and their associated costs. Further, the permittee shall discuss the implementation of a public participation program to seek public input and gain public awareness of this 1st stage of the Long-Term Control Plan (LTCP) process.

The SRCER should be utilized to characterize CSO impacts and the efficacy of CSO controls listed within the approved Operational Plan as well as providing baseline conditions for determination of necessary long-term CSO controls. Results from the permittee's characterization and evaluation will aid in determining the extent of long-term CSO controls needed to comply with the Clean Water Act (CWA). If a determination cannot be made, the permittee may be required to perform additional testing of individual CSOs to determine water quality impacts. The necessary long-term controls shall be contained within a LTCP as required in Part VI of this Attachment A.

IV. Sewer Use Ordinance Review/Revision

The permittee, within nine (9) months of the effective date of this permit, shall review, modify, where necessary, and enforce its existing Sewer Use Ordinance to ensure it contains provisions which: (1) prohibit introduction of inflow sources to any sanitary sewer; (2) prohibit construction of new combined sewers; (3) require that new construction tributary to the combined sewer be designed to minimize or delay inflow contribution to the existing combined sewer; and (4) provide that for any new building the inflow/clear water connection to a combined sewer shall be made separate and distinct from sanitary waste connection to facilitate disconnection of the former if a separate storm sewer subsequently becomes available.

V. Implementation of the Approved CSO Operational Plan and Eight (8) Minimum Controls

- A. The permittee's CSO Operational Plan (CSOOP) and any subsequent revisions approved by IDEM are incorporated by reference and shall be an enforceable part of this permit.

The permittee shall update the CSO Operational Plan, which was submitted in December of 1995, within 90 days of the effective date of this permit. The update shall include any changes to the POTW that would enhance or affect the POTW's ability to treat wet weather flows or divert flows from the Belmont to the Southport facility. Additionally, the plan shall include a detailed description and rationale of how all of the unit treatment processes will be operated, including any and all diversion structures, during periods of wet weather.

Thereafter, the permittee shall implement the CSOOP and update it to reflect system modifications. Any significant changes to the approved CSOOP must be approved by the Office of Water Quality.

Beginning with the effective date of this permit, the permittee shall comply with the following eight minimum controls from the EPA's federal Combined Sewer Overflow Policy (CSO): (1) proper operation and regular maintenance for the sewer system and CSOs; (2) maximum use of the collection system for storage; (3) review and modification of pretreatment requirements to assure CSO impacts are minimized; (4) maximization of

flow to the Belmont AWT Plant for treatment; (5) prohibition of CSO discharges during dry weather; (6) control of solid and floatable materials in CSO discharges; (7) pollution prevention; and (8) public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts. The ninth minimum control is outlined within Part III and Part VI of this Attachment. The permittee's plan to comply with the first 8 minimum controls shall be documented in the CSOOP.

- B. Commencing immediately, during wet weather flow conditions, the permittee shall maximize the flows transported to the Belmont AWT Plant and Southport AWT Plant for treatment consistent with Part II.A.2 of this permit and wet weather operation of the AWT facilities as described in the approved CSOOP. Records documenting these flow rates such as instantaneous flow measurement recordings/charts, etc shall be maintained as required in Part I.B.8 of this permit. Compliance with this provision shall not relieve the permittee from its obligation to comply with Part II.B.2 of this permit.

VI. Long-term CSO Requirements

- A. The permittee has submitted a LTCP dated April 30, 2001 to IDEM and U.S. EPA for approval.

The LTCP is required to be consistent with the federal CSO Policy, the federal CSO Guidance for LTCPs, and IC 13-11-2-120.5 and is required to incorporate the following minimum elements:

1. characterization, monitoring, and modeling of the CSS;
 2. consideration of sensitive areas;
 3. evaluation of alternatives;
 4. cost/performance considerations;
 5. revising the CSO Operational Plan;
 6. maximizing treatment at the WWTP;
 7. development of an implementation schedule;
 8. development of a post-construction compliance monitoring program; and
 9. public participation.
- B. In the evaluation of alternatives, the permittee shall include all pertinent information necessary to determine the permittee's reasonable financial capability to implement CSO controls to meet WQS.

Construction phasing shall consider:

1. eliminating overflows that discharge to sensitive areas as the highest priority;
2. use impairment;
3. permittee's financial capability including consideration of such factors as:
 - i. median household income/total project cost per household;
 - ii. per capita debt as a percent of full market property value;
 - iii. property tax revenues as a percent of full market property value;
 - iv. property tax collection rate;
 - v. unemployment;
 - vi. bond rating;
 - vii. grant and loan availability;
 - viii. residential, commercial and industrial user fees; and
 - ix. other viable funding mechanisms and sources of financing.

To the extent that the LTCP which was submitted on April 30, 2001 does not address the items above, the permittee shall submit a LTCP amendment to the Indiana Department of Environmental Management, Office of Water Quality, Compliance Branch, for its approval within 120 days from the effective date of this permit renewal.

VII. Reopening Clauses

- A. If significant water quality problems or demonstrated aquatic biota impacts are linked to CSO discharges and the adverse effect is not adequately addressed by corrective action contained in a Long-Term Control Plan, as determined by the IDEM, additional control measures, effluent limitations, and/or monitoring requirements may be imposed through a modification of this permit, after public notice and opportunity for hearing. This permit may be reopened to address changes in federal CSO control guidelines.
- B. The permit may be reopened to include other analyses or sampling points if there is reason to suspect toxicity or other forms of aquatic impact (e.g. bioconcentrating substances). If instream water quality is adversely affected by CSO discharges and the adverse effect is not adequately addressed by corrective action contained in a Long-Term Control Plan, the permit may be reopened to specify elimination or reduction of the source.
- C. The permit may be reopened to require additional CSO outfall monitoring requirements, should the requirements within this Attachment, Part II, prove inadequate to assure reliable reporting of CSO frequency and duration.

VIII. SCHEDULE OF COMPLIANCE

The prohibition on discharges from CSOs causing or contributing to violations of water quality standards shall not apply to the numeric *E. coli* criteria set forth in 327 IAC 2-1-6(d) for a period beginning with the effective date of this permit and ending three years from the effective date of this permit.

In accordance with 327 IAC 5-2-12, this schedule of compliance includes the following interim requirements:

Within nine months from the effective date of this permit, the permittee shall submit a progress report to the Office of Water Quality (OWQ), Compliance Branch, on the development of the minimum controls documented in the communities approved CSO Operational Plan. These minimum controls are as follows:

1. proper operation and regular maintenance programs for the collection system and the CSOs;
2. maximum use of the collection system for storage;
3. review and modification of pretreatment programs to assure CSO impacts are minimized;
4. maximization of flow to the POTW for treatment;
5. prohibition of CSO discharges during dry weather;
6. control of solid and floatable materials in CSO discharges;
7. pollution prevention programs that focus on contaminant reduction activities; and
8. public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.

Progress reports discussing the permittee's development of the above minimum controls are also due eighteen (18) months from the effective date of the permit, twenty-seven (27) months from the effective date of the permit, and thirty-six (36) months from the effective date of the permit.

ATTACHMENT B

Sanitary Sewer System Overflows

Overflows in the sanitary sewer system or in a sanitary portion of a combined sewer are expressly **prohibited** from discharging at any time. Should any release from the sanitary sewer system occur, the permittee is required to notify the Compliance Evaluation Section of the Office of Water Quality orally within twenty-four (24) hours and in writing within five (5) days of the event in accordance with the requirements in Part II.C.3.d of this permit. The correspondence shall include the duration and cause of discharge as well as the remedial action taken to eliminate it. The overflow duration and estimated flow shall also be reported on the Discharge Monitoring Report form.

Any extensions to the sewer system must be constructed on a separate sanitary and storm sewer basis. Plans and specifications, when required, for extension of the sanitary system must be submitted to the Facility Construction Section, Office of Water Quality in accordance with 327 IAC 3-2-1. The permittee shall implement an ongoing preventative maintenance program for the sanitary sewer system.

<u>Outfall No.</u>	<u>Location</u>	<u>Receiving Stream</u>
105	Fall Creek & Shadeland Avenue	Fall Creek
113	Rodney Drive & Country Club Road	Union Creek
124	Landborough S. Dr. & Creekside Lane Lift Station	Blue Creek