

# MEMORANDUM

Division of Water Pollution Control

Date: May 5, 2000  
To: Maynardville Permit File, NPDES Permit No. TN0022870  
From: Roger D. Lemasters *rdl*  
Subject: Operator Certification Grade for the Maynardville STP

In response to a request, dated May 1, 2000, for the points associated with the Maynardville STP, I offer the following:

1. The point total is 64. This is in the range of Grade III; the range being 56 to 75 points. The current NPDES permit requires the services of a Grade II operator. Note: The STP is under construction to expand the  $Q_d$  from 0.150 MGD to 0.60 MGD. Construction is scheduled to be complete at about the end of August 2000. When the newly expanded STP becomes operational, it must be operated under the supervision of a Grade III operator.
2. For the VARIATION IN RAW WASTES, 4 points were given. I reviewed the DMR summary that was attached to the request and my rationale is as follows:
  - a. For monthly averages of flow, the average daily flow for the 76 months is 0.187 MGD and the maximum month of daily flows is 0.563 MGD. The ratio of these two flows is 3.01; therefore, the variation in flows is 201%.
  - b. For daily maximum flows, the average of the daily maximum flows is 0.374 MGD and the single-day maximum daily flow is 1.397 MGD. The ratio of these two flows is 3.74; therefore, the variation in flows is 274%.
  - c. For influent BOD, the average is 271 mg/l and the maximum is 563 mg/l. The ratio is 2.08; therefore, the variation in strength is 108%.
  - d. For influent suspended solids, the average is 221.9 mg/l and the maximum is 460 mg/l. The ratio is 2.07; therefore, the variation in strength is 107%.

Since two of the variations in strength exceed 200%, 4 points were given.

3. The current NPDES permit requires the services of a Grade II operator. There is no available point sheet to indicate how the current Grade II operator level was determined. The attached rating sheet provides basic information on the new point total of 64; however, the following comments are appropriate:
  - a. The expansion is being effected by raising the walls of the aeration basins by 2-3 feet and by abandoning the 2 existing final clarifiers (total volume of about 65,000 gallons) and constructing one new final clarifier with a volume of about 300,000 gallons.
  - b. The two existing sand drying beds are being destroyed. One will be the site of a new sludge processing building and the other will be the site of the sludge truck parking area.
  - c. Liquid sludge is being trucked to Knoxville for further processing, with ultimate disposal by land application. The operator indicated that Maynardville may eventually return to spreading sludge on land.
  - d. KUB is doing most of the laboratory work. A KUB person does the weekly analyses, such as BOD, fecal coliform, etc. The Maynardville operator does simple daily tests such as pH, settleable solids, DO, etc.

If there are any questions, please do not hesitate to contact me at (615) 532-0649.

cc: Sherry Messick; Fleming Training Center

TENNESSEE SEWAGE TREATMENT PLANT GRADE WORKSHEET, FOR RULES EFFECTIVE JULY 5, 1998

Name of Facility Maynardville STP NPDES NO. 22870 Design Flow 0.60 MGD  
 Person Contacted John Amburn, Chief Operator Phone No. (865) 992-5750  
 Completed by Roger D. Lemasters Date 05/05/00 Total Points 64 Grade III

EFFLUENT DISCHARGE

Design flow points (30 max.)( $Q_d \times 2$ ) 2  
 Receiving stream sensitivity (check only one)  
 (STP limits: BOD = 25)  
 ( " " NH<sub>3</sub> = 1.6)  
 Secondary (BOD  $\geq 30$  and no NH<sub>3</sub>) (1)       
 Advanced Sec.(BOD = 10-29 or NH<sub>3</sub>  $\geq 5$ ) (3)       
 Tertiary (BOD < 10 or NH<sub>3</sub> < 5) (5) 5  
 Direct reuse (7)       
 Land disposal, evaporation (2)       
 Subsurface discharge (4)     

VARIATION IN RAW WASTES (check only 1)

(flow or BOD; use ratio of peak to average)  
 Less than 100 percent (0)       
 100 - 200 percent (2)       
 More than 200 percent (4) 4  
 Subject to toxic wastes (6)     

DISINFECTION: (Check all that apply)

Chlorination (5) 5  
 Dechlorination (5) 5  
 Ozonation (10)       
 Ultraviolet (5)     

TREATMENT (check all that apply)

Manually cleaned screens (2) <u>2</u>	Activated sludge (8) <u>    </u>
Mechanically cleaned screens (3) <u>    </u>	Oxidation ditch (9) <u>    </u>
Preaeration (2) <u>    </u>	Mechanical aeration (10) <u>10</u>
Comminutor, barminutor, grinders, etc. (3) <u>    </u>	Diffused or dispersed aeration (10) <u>10</u>
Grit removal (3) <u>3</u>	Batch treatment (SBR, ICEAS, etc.) (15) <u>    </u>
Raw sewage pumping (on-site) (3) <u>3</u>	Pure oxygen (10) <u>    </u>
Flow equalization basins (aerated) (5) <u>    </u>	Two-state activated sludge (10) <u>    </u>
Flow equalization basins (un-aerated) (2) <u>    </u>	Polishing pond or effluent flow equal. (2) <u>    </u>
Fine screens (preliminary treatment) (3) <u>    </u>	Land application of treated effluent (5) <u>    </u>
Pre-chlorination (3) <u>    </u>	Chemical treatment removal (6) <u>    </u>
Primary clarifiers (5) <u>    </u>	Denitrification (10) <u>    </u>
Primary clarifiers with chemical settling aid (7) <u>    </u>	Sand or mixed media filters (8) <u>    </u>
Swirl system (3) <u>    </u>	Activated carbon beds (10) <u>    </u>
Secondary clarifiers (5) <u>5</u>	Nitrification required by permit
Flocculation with or without chemical aid (7) <u>    </u>	By activated sludge (6) <u>    </u>
Trickling filter without recirculation (6) <u>    </u>	By other processes (7) <u>    </u>
Trickling filter with recirculation (8) <u>    </u>	

SLUDGE TREATMENT AND HANDLING

Anaerobic digestion (check only one)	Belt press, plate & frame (8) <u>    </u>
Unheated (5) <u>    </u>	Solids reduction (incinerator,
Heated (10) <u>    </u>	wet oxidation, etc.) (15) <u>    </u>
Aerobic digestion (7) <u>7</u>	Land application (5) <u>5</u>
Drying beds (3) <u>    </u>	Chemical stabilization with lime (8) <u>    </u>
Sand bed with polymer added (5) <u>    </u>	All other dewatering units including
Gravity thickener (5) <u>    </u>	wedgewire and vacuum beds, both
Dissolved air flotation thickener (8) <u>    </u>	with polymers (5) <u>    </u>
Vacuum filter (8) <u>    </u>	Composting: in-vessel (10) <u>    </u>
Centrifuge (8) <u>    </u>	Composting: static pile (5) <u>    </u>
	Sludge lagoon (3) <u>    </u>

LABORATORY CONTROL-BACTERIOLOGICAL

(check all that apply)  
 Lab work done outside plant (0)       
 Membrane filter procedures (3)       
 Use of fermentation tubes or any dilution  
 method; (5)       
 Biological identification (7)     

CHEMICAL/PHYSICAL (check all that apply)

Lab work done outside plant (0) 0  
 Push-button or visual methods for simple  
 tests such as pH, settleable solids (3) 3  
 Tests such as DO, COD, BOD, titrations,  
 gas analysis, volatile content (5) 5  
 Specific nutrients, total oils, phenols, etc. (7)       
 A/A or GC/MS (10)     

Collection system 700± connections: Grade I



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Pollution Control  
6<sup>th</sup> Floor, L & C Annex  
401 Church Street  
Nashville, TN 37243-1534

May 5, 2000

The Honorable H. E. Richardson  
Mayor of Maynardville  
302 Main Street  
Maynardville, TN 37807

Re: Change in Operator Classification  
Maynardville Wastewater Treatment Plant  
NPDES Permit No. TN0022870  
Union County, TN

Dear Mayor Richardson:

The Division of Water Pollution Control is in the process of re-issuing the NPDES permit for the Maynardville Wastewater Treatment Plant. As a part of that process, the Division re-evaluated the treatment plant to insure that it is properly classified.

On May 5, 2000, Mr. John Amburn, the plant operator, and I discussed the various unit processes that will be used at the sewage treatment plant when construction is completed (scheduled for the end of August 2000). As a result of that discussion, the point total for the expanded sewage treatment plant will be 64 points. The current NPDES permit requires the STP to be operated under the supervision of a Grade II operator. The new point total requires the expanded STP to be operated under the supervision of a Grade III operator. Attached for your information is a copy of the rating sheet, as well as a memo in which the rating is discussed.

Please be advised that Section 1200-5-3-.04(2) of the Tennessee Code Annotated requires that

“Each person in direct charge at a . . . wastewater treatment plant . . . shall hold a certificate in a grade equal to or higher than the grade of the treatment plant . . .”.

Therefore, when the expanded STP becomes operational, the Maynardville wastewater treatment plant must be operated under the supervision of a Grade III certified operator. We suggest that you contact the Tennessee Operator Training Center in Murfreesboro, at (615) 898-8090, for information on the specific requirements for obtaining a Grade III operator.

If you have any questions regarding the rating of the Maynardville wastewater treatment plant, please do not hesitate to contact me at (615) 532-0649.

Sincerely,

Roger D. Lemasters, P.E.  
Chief Engineer  
Division of Water Pollution Control

cc: Mr. John Amburn; Maynardville Wastewater Treatment Plant Operator  
Mr. Gerald Simmons; Maynardville City Manager  
Division of Water Pollution Control; EAC-K  
Ms. Sherry Messick; Fleming Training Center

# Memorandum

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**To:** Roger Lemasters, WPC - Municipal Facilities  
**From:** Maybelle Thomas<sup>MT</sup>, WPC - Permit Section  
**Date:** May 1, 2000  
**Re:** Operator Certification Grades for Maynardville STP (Union County)

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Please calculate the operator certification classifications for the Maynardville STP and its associated collection system (NPDES #TN0022870). The current STP design flow is 0.15 MGD. The proposed STP expansion will increase the capacity of the facility to 0.6 MGD. The STP serves approximately 1,596 people in the City of Maynardville.

Attached for your use is a copy of the application for the Maynardville STP that provides a narrative of the treatment process and a discharge monitoring report summary. The CBOD<sub>5</sub> limit in the proposed limit is 25. The ammonia limit is 1.6

Clarifications on STP unit processes may be obtained from Mr. John Amburn at ~~423~~ 992-5750.  
865

Thanks,



Maybelle Thomas  
MT

DATE:

3-1-00

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MAR 09 2000

TO:

Permit Section, WPC

FROM:

Environmental Assistance Center- Knoxville, WPC

Permit Section

SUBJECT:

Application\*  Draft to EAC-K  Draft to Applicant   
Revised App.  Revised Draft to EAC-K  Revised Draft to App.

NAME

Maynardville JSTP

COUNTY

Union

NPDES PERMIT NO. TN0022870

STATE W.O. PERMIT NO. \_\_\_\_\_

DATE RECEIVED 1-11-00

DATE DUE 1-25-00

- THIS IS A PLANT EXPANSION. THE EXISTING PERMITTED DISCHARGE IS 0.15 MGD, THE ONGOING EXPANSION WILL BRING THE AVERAGE DAILY CAPACITY TO 0.60 MGD, PEAK DISCHARGES DURING RAINFALL EVENTS OF 1.2 MGD.

- AN ANTI-DEGRADATION EVALUATION AND TIER EVALUATION HAS BEEN DONE AND IS FORTHCOMING. NO PROBLEMS WERE NOTED. WLS 3/1/2000

\*Is this application for a new discharge? Yes  No

Is this application for increased existing discharge? Yes  No

If "yes" to either question, attach a Watershed Evaluation and Anti-degradation Policy Checklist I.

Instructions to EAC-K staff: (1) Write legibly in ink; (2) Be specific--include rationale and supporting data; (3) Initial and date.

FORM <b>1</b> GENERAL	<b>EPA</b>	U.S. ENVIRONMENTAL PROTECTION AGENCY <b>GENERAL INFORMATION</b> Consolidated Permits Program (Read the "General Instructions" before starting.)	I. EPA I.D. NUMBER FTN0022870
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**LABEL ITEMS**

I. EPA I.D. NUMBER: TN0022870

III. FACILITY NAME: MAYNARDVILLE STP

V. FACILITY MAILING ADDRESS: GERALD SIMMONS, CITY MANAGER  
P.O. BOX 217  
MAYNARDVILLE, TN 37807

VI. FACILITY LOCATION

**GENERAL INSTRUCTIONS**

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

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Permit Section

**II. POLLUTANT CHARACTERISTICS**

**INSTRUCTIONS:** Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)	X			B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

**III. NAME OF FACILITY**

1. SKIP

**IV. FACILITY CONTACT**

A. NAME & TITLE (last, first, & title)

B. PHONE (area code & no.)

**V. FACILITY MAILING ADDRESS**

A. STREET OR P.O. BOX

B. CITY OR TOWN

C. STATE

D. ZIP CODE

**VI. FACILITY LOCATION**

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

B. COUNTY NAME

C. CITY OR TOWN

D. STATE

E. ZIP CODE

F. COUNTY CODE (if known)

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Permit Section

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
C	7	(specify)		C	7	(specify)	
13	14	15	16	17	18	19	20
MUNICIPAL WASTEWATER							
C. THIRD				D. FOURTH			
C	7	(specify)		C	7	(specify)	
13	14	15	16	17	18	19	20

VIII. OPERATOR INFORMATION

A. NAME											B. Is the name listed in Item VIII-A also the owner?				
C	CITY OF MAYNARDVILLE										<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
13	14										33	34			
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other", specify.)								D. PHONE (area code & no.)							
F = FEDERAL		M = PUBLIC (other than federal or state)		O = OTHER (specify)		A		423		992		3821			
S = STATE		P = PRIVATE				M									
						88		15		16 - 18		19 - 21			
E. STREET OR P.O. BOX															
P O BOX 217															
F. CITY OR TOWN											G. STATE	H. ZIP CODE		IX. INDIAN LAND	
MAYNARDVILLE											TN	37807		Is the facility located on Indian lands?	
														<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
														52	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)					
C	T	I				C	T	I			
9	N		TN0022870			9	P				
13	14	15	16	17	18	19	20	21	22	23	24
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)					
C	T	I				C	T	I			
9	U					9			(specify)		
13	14	15	16	17	18	19	20	21	22	23	24
C. RCRA (Hazardous Wastes)						E. OTHER (specify)					
C	T	I				C	T	I			
9	R					9			(specify)		
13	14	15	16	17	18	19	20	21	22	23	24

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

ACTIVATED SLUDGE TREATMENT PROCESS -  
 RAW SEWAGE INFLUENT IS SCREENED, AERATED, SLUDGE SETTLES IN CLARIFIERS WHILE CLARIFIER EFFLUENT IS CHLORINATED WITH 30 MINS. MINIMUM DETENTION TIME, THEN DE-CHLORINATED WITH SULFUR DIOXIDE BEFORE BEING DISCHARGED TO CREEK.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)		B. SIGNATURE		C. DATE SIGNED	
Gerald Simmons		Gerald Simmons		12-3-99	

COMMENTS FOR OFFICIAL USE ONLY

C											
13	14										35



DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER POLLUTION CONTROL

NPDES PERMIT APPLICATION ADDRESSES

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All addresses must be completed even if the same address is used:

MAR 09 2000

NPDES PERMIT NUMBER: TN0022870

Permit Section

CORPORATE HEADQUARTERS (where permit should be sent):

CONTACT PERSON: GERALD SIMMONS, CITY MANAGER TELEPHONE: <sup>865</sup>~~(423)~~ 992-3821

COMPANY NAME: CITY OF MAYNARDVILLE

STREET AND/OR P.O. BOX: 302 MAIN ST. P.O. Box 217

CITY: MAYNARDVILLE STATE: TN ZIP CODE: 37807

Mayor M.E. Richardson

PERMIT BILLING ADDRESS (where invoices should be sent):

CONTACT PERSON: GERALD SIMMONS CITY MANAGER TELEPHONE: <sup>865</sup>~~(423)~~ 992-3821

FACILITY NAME: CITY OF MAYNARDVILLE

STREET AND/OR P.O. BOX: 302 MAIN ST. P.O. Box 217

CITY: MAYNARDVILLE STATE: TN ZIP CODE: 37807

FACILITY LOCATION (actual location of permit site):

CONTACT PERSON: JOHN AMBURN, WWTP OPERATOR

FACILITY NAME: CITY OF MAYNARDVILLE WWTP

STREET AND/OR P.O. BOX: JOHNSON ROAD

CITY: MAYNARDVILLE STATE: TN ZIP CODE: 37807

COUNTY: UNION TELEPHONE: <sup>865</sup>~~(423)~~ 992-5750

DMR MAILING ADDRESS (where preprinted Discharge Monitoring Reports should be sent):

CONTACT PERSON: GERALD SIMMONS, CITY MANAGER TELEPHONE: <sup>865</sup>~~(423)~~ 992-3821

FACILITY NAME: CITY OF MAYNARDVILLE

STREET AND/OR P.O. BOX: P.O. Box 217

CITY: MAYNARDVILLE STATE: TN ZIP CODE: 37807

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
APPLICATION FOR PERMIT TO DISCHARGE - SHORT FORM A

Form Approved  
OMB No. 158-R0096

To be filed only by municipal wastewater dischargers

APPLICATION NUMBER											
FOR AGENCY USE											
DATE RECEIVED											
YEAR				MO.				DAY			

Do not attempt to complete this form before reading the accompanying instructions  
Please print or type

- Name of organization responsible for facility CITY OF MAYNARDVILLE
- Address, location, and telephone number of facility producing discharge:
  - Name CITY OF MAYNARDVILLE
  - Mailing address:
    - Street address P. O. Box 217
    - City MAYNARDVILLE 3. County UNION
    - State TN 5. ZIP 37807
  - Location:
    - Street 302 MAIN ST.
    - City MAYNARDVILLE 3. County UNION
    - State TN
  - Telephone No. 423 992-3821  
Area Code

If all your waste is discharged into a publicly owned waste treatment facility and to the best of your knowledge you are not required to obtain a discharge permit, proceed to item 3. Otherwise proceed directly to item 4.

- If you meet the condition stated above, check here  and supply the information asked for below. After completing these items, please complete the date, title, and signature blocks below and return this form to the proper reviewing office without completing the remainder of the form.
  - Name of organization responsible for receiving waste \_\_\_\_\_
  - Facility receiving waste:
    - Name \_\_\_\_\_
    - Street address \_\_\_\_\_
    - City \_\_\_\_\_ 4. County \_\_\_\_\_
    - State \_\_\_\_\_ 6. ZIP \_\_\_\_\_
- Type of treatment:
 

A.  None    B.  Primary    C.  Intermediate    D.  Secondary    E.  Advanced
- Design flow (average daily) of facility 150 mgd.
- Percent BOD removal (actual):
 

A.  0-29.9    B.  30-64.9    C.  65-84.9    D.  85-94.9    E.  95 or more
- Population served:
 

A.  1-199    B.  200-499    C.  500-999    D.  1,000-4,999  
E.  5,000-9,999    F.  10,000 or more
- Number of separate discharge points:
 

A.  1    B.  2    C.  3    D.  4    E.  5    F.  6 or more

*APPROXIMATELY 20 HRS. PER DAY*

9. Description of waste water discharged to surface waters only (check as applicable).

Discharge per operating day	Flow, MGD (million gallons per operating day)							Volume treated before discharging (percent)				
	0-0.0099 (1)	0.01-0.049 (2)	0.05-0.099 (3)	0.1-0.49 (4)	0.5-0.99 (5)	1.0-4.9 (6)	5 or more (7)	None (8)	0.1-34.9 (9)	35-64.9 (10)	65-94.9 (11)	95-100 (12)
A. Average				0.250								
B. Maximum					0.575							100
												100

10. If any waste water, treated or untreated, is discharged to places other than surface waters, check below as applicable.

Waste water is discharged to	Flow, MGD (million gallons per operating day)						
	0-0.0099 (1)	0.01-0.049 (2)	0.05-0.099 (3)	0.1-0.49 (4)	0.5-0.99 (5)	1.0-4.9 (6)	5 or more (7)
A. Deep well							
B. Evaporation lagoon							
C. Subsurface percolation system							
D. Other, specify:							

11. Is any sludge ultimately returned to a waterway?

A.  yes B.  no

12. a. Do you receive industrial waste?

1.  yes 2.  no

b. If yes, enter approximate number of industrial dischargers into system 17

13. Type of collection sewer system:

- A.  Separate sanitary  
 B.  Combined sanitary and storm  
 C.  Both separate and combined sewer systems

14. Name of receiving water or waters NORTH FORK OF BULL RUN CREEK

15. Does your discharge contain or is it possible for your discharge to contain one or more of the following substances: ammonia, cyanide, aluminum, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, phenols.

A.  yes B.  no

I certify that I am familiar with the information contained in the application and that to the best of my knowledge and belief such information is true, complete, and accurate.

Gerald Simmons  
 Printed Name of Person Signing

CITY MANAGER  
 Title

12-3-99  
 Date Application Signed

Gerald Simmons  
 Signature of Applicant

18 U.S.C. Section 1001 provides that:

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious, or fraudulent statements or representations; or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years, or both.



January 3, 2000

Mr. John Amburn  
City of Maynardville  
Post Office Box 217  
Maynardville, TN 37807-0217

RECEIVED

REFERENCE: City of Maynardville  
Wastewater Treatment Plant Expansion  
MDV-914-CM 06ST13

MAR 09 2000

Permit Section

Dear Mr. Amburn:

In accordance with your request, please find enclosed the Tennessee Department of Environment and Conservation (TDEC) approval letter for the wastewater treatment plant expansion.

Should you have questions or comments regarding this project, please do not hesitate to contact us.

Sincerely,

**LAMAR DUNN & ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read 'Art Baker', is written over the typed name.

Arthur S. Baker, P.E.

ASB:dh

Enclosure

MDV-914-CM 06ST13/CR/Amburn.ASB



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER POLLUTION CONTROL  
401 CHURCH STREET  
L & C ANNEX SIXTH FLOOR  
NASHVILLE TN 37243-1534  
(615)532-0625

9 October 1997

Lamar Dunn  
Lamar Dunn & Associates Inc.  
3305 Maloney Road  
Knoxville Tn 37920

RECEIVED

MAR 09 2000

Permit Section

Re: Maynardville Wastewater System  
Water Pollution Control Number 97-0772  
WWTP Modification

Dear Mr. Dunn:

The Tennessee Department of Environment and Conservation, Division of Water Pollution Control, acknowledges the receipt of four (4) set(s) of construction documents on 29 July 1997.

The project consists of installing new motors in influent pump station, replacing diffusers and baffles in aeration tanks, adding a 60 foot diameter clarifier, adding new chlorination basin and a new lime storage building.

Approval is granted in accordance with certain requirements of the Water Quality Control (WQC) Act of 1977 and Regulations of the Water Quality Control Board. **The SITE set of plans and specifications will be stamped with the APPROVAL and APPROVAL EXPIRES STAMPS only on the cover sheets only. Any indication of tampering with the bound set of documents will be subject to investigation and prosecution.** One complete set of construction documents, bearing the official stamp, must be kept at the construction site.

Approval of these construction documents should not be construed as a permit for any activities related to this project. Activities which may require a permit under the WQC Act and Regulations include, but are not limited to, the following: streambank vegetation removal; creek crossing(s) for equipment or utility lines; construction within twenty (20) feet of a stream bank; or construction in or near a marshy area or wetland. The Natural Resources Section of the Division of Water Pollution Control (615/532-0625) should be contacted for determinations regarding an NPDES permit or an Aquatic Resource Alteration Permit (ARAP) for those activities which may result in degradation of waters of the state.

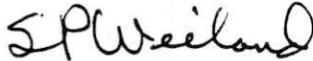
Approval expires one year from the stamped approval date unless construction is either underway or complete. Any request for extension must be made prior to this expiration date. Significant deviations from the approved plan documents must be submitted and approved in writing before such changes are

made. Minor changes made during construction need not have prior written approval. Modifications, however, may be required by this Department should the changes be deemed inappropriate. It is advisable, therefore to obtain prior approval in cases where the significance of the change is uncertain.

The Division of Water Pollution Control is authorized to inspect the construction work to verify compliance with the approved plans and specifications which are on the site. **Therefore, the engineer shall notify the Knoxville Field Office (423-594-6035) of the start of construction.**

To expedite matters, please reference the assigned Water Pollution Control number on any future correspondence. If we may be of any assistance, please contact us at (615) 532-0625.

Sincerely,



S.P. Weiland  
Municipal Facilities Section  
Division of Water Pollution Control

Enclosure

cc: City of Maynardsville  
TDWPC - Knoxville Field Office  
File - P&S

mfs3

# ENVIRONMENTAL SCIENCE CORP.

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289  
Est. 1970

Mr. John Amburn  
Maynardville WWTP  
PO Box 217  
Maynardville, TN 37807-0217

## REPORT OF ANALYSIS

December 14, 1999

Date Received : December 08, 1999  
Description : Annual Sludge  
Sample ID : DIGESTER 8 FT  
Collected By : John Amburn  
Collection Date : 12/07/99 08:50

ESC Sample # : L6891-01  
ESC Key : MAYN02-ANNUAL SLUDGE  
Site ID :  
Project # :

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Ammonia Nitrogen	78.	1.7	4100	89.	mg/kg	350.1	12/10/99
Nitrite	BDL	2.2	BDL	120	mg/kg	353.2	12/08/99
Nitrate	20.	2.5	1000	130	mg/kg	9200	12/08/99
Kjeldahl Nitrogen, TKN	120	83	6300	4400	mg/kg	351.2	12/10/99
Total Solids	1.9		1.9		%	2540G	12/08/99
Arsenic	BDL	.05	BDL	2.6	mg/kg	6010	12/10/99
Selenium	0.20	.05	10.	2.6	mg/kg	6010	12/10/99
Mercury	0.12	.01	6.3	0.53	mg/kg	7470	12/09/99
Cadmium	0.028	.02	1.5	1.0	mg/kg	6010	12/10/99
Chromium	0.17	.02	8.9	1.0	mg/kg	6010	12/10/99
Copper	3.0	.1	160	5.3	mg/kg	6010	12/10/99
Lead	0.23	.05	12.	2.6	mg/kg	6010	12/10/99
Molybdenum	0.20	.02	10.	1.0	mg/kg	6010	12/10/99
Nickel	BDL	.1	BDL	5.3	mg/kg	6010	12/10/99
Zinc	9.0	.1	470	5.3	mg/kg	6010	12/10/99



Tom Mellette, ESC Representative

BDL - Below Detection Limit

RDL - Detection Limit- Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

REPORT OF ANALYSIS

Tax ID. 62-0814289

Est. 1970

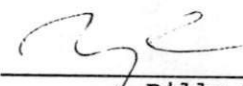
Ms. Robin Young  
Maynardville WWTP  
PO Box 1011  
Alcoa TN 37701

December 21, 1998  
Sample # : 32586-98-1

Sample Description : Sludge

Sample Location: Digester 1  
Date/Time collected: 12/03/98 0940  
Collected by : John Amburn

Parameter	Result (Wet Wt.)	Result (Dry Wt.)	Units	Method	Date Analyzed
Solids, Total	1.1		%	160.3	12/08/98
Arsenic	< 0.025	< 2.3	mg/kg	7060	12/16/98
Cadmium	0.033	3.0	mg/kg	6010	12/17/98
Chromium	0.060	5.5	mg/kg	6010	12/17/98
Copper	1.8	160	mg/kg	6010	12/17/98
Lead	0.16	15	mg/kg	6010	12/17/98
Mercury	0.019	1.7	mg/kg	7471	12/08/98
Molybdenum	0.27	25	mg/kg	6010	12/17/98
Nickel	0.18	16	mg/kg	6010	12/17/98
Selenium	< 1.0	< 91	mg/kg	6010	12/17/98
Zinc	4.0	360	mg/kg	6010	12/17/98
Ammonia Nitrogen	69	6,300	mg/kg	350.1	12/11/98
Kjeldahl Nitrogen, TKN	870	79,000	mg/kg	351.2	12/08/98
Nitrate	< 7.1	< 650	mg/kg	9200	12/08/98
Nitrite	< 7.1	< 650	mg/kg	353.2	12/08/98

  
Billy Dranes  
ESC Representative

Please review all information in this report for accuracy and completeness.  
Contact our office within 10 days if there are any questions.

LIQUID SLUDGE IS HAULED BY POWER PUMPING SEPTIC SERVICE FROM SEYMOUR, AND IS TAKEN TO KUWAHEE SEPTAGE DUMP SITE WHICH IS OWNED BY KNOXVILLE UTILITIES BOARD.

THE AMOUNT OF SLUDGE HAULED FROM JUNE 1998 TO MAY 1999 WAS ~~4,500~~ 432,500 GALS.

PLANT OPERATOR IS JOHN AMBURN  
CERT.# 411-94-3992

KUB COMES 3 DAYS PER WEEK AND TAKES SAMPLES EVERY TUESDAY MORNING.

OTHER TESTS NECESSARY FOR DAILY PLANT OPERATION ARE DONE BY JOHN OR KUB.



CITY OF MAYNARDVILLE

Fax Transmittal Memo

TO: Magbelle Thomas

FAX NUMBER: 615-532-0503

FROM: Donald Simmons

SUBJECT: \_\_\_\_\_

DATE: 4-26-00

NUMBER OF PAGES INCLUDING THIS ONE: 2

IF YOU DO NOT RECEIVE THIS ENTIRE DOCUMENT OR HAVE ANY QUESTIONS  
CALL.

TELEPHONE NO. 865-992-3821

MESSAGE:

Design flow 0.600 average  
1.2 mgd Peak

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM APPLICATION FOR PERMIT TO DISCHARGE - SHORT FORM A

Form Approved  
OMB No. 155-R0096

To be filed only by municipal wastewater dischargers

APPLICATION NUMBER			
DATE RECEIVED			
YEAR	MO.	DAY	

Do not attempt to complete this form before reading the accompanying instructions  
Please print or type

1. Name of organization responsible for facility CITY OF MAYNARDVILLE
2. Address, location, and telephone number of facility producing discharge:
- A. Name CITY OF MAYNARDVILLE
- B. Mailing address:
1. Street address P.O. Box 217
2. City MAYNARDVILLE 3. County UNION
4. State TN 5. ZIP 37807
- C. Location:
1. Street 302 MAIN ST.
2. City MAYNARDVILLE 3. County UNION
4. State TN
- D. Telephone No. 423 992-3821
- Area Code

If all your waste is discharged into a publicly owned waste treatment facility and to the best of your knowledge you are not required to obtain a discharge permit, proceed to item 3. Otherwise proceed directly to item 4.

3. If you meet the condition stated above, check here  and supply the information asked for below. After completing these items, please complete the data, title, and signature blocks below and return this form to the proper reviewing office without completing the remainder of the form.

- A. Name of organization responsible for receiving waste \_\_\_\_\_
- B. Facility receiving waste:
1. Name \_\_\_\_\_
2. Street address \_\_\_\_\_
3. City \_\_\_\_\_ 4. County \_\_\_\_\_
5. State \_\_\_\_\_ 6. ZIP \_\_\_\_\_

4. Type of treatment:
- A.  None B.  Primary C.  Intermediate D.  Secondary E.  Advanced

5. Design flow (average daily) of facility 0.40 mgd. ~~1.0 mgd. per day~~

6. Percent BOD removal (actual):
- A.  0-29.9 B.  30-64.9 C.  65-84.9 D.  85-94.9 E.  95 or more

7. Population served:
- A.  1-199 B.  200-499 C.  500-999 D.  1,000-4,999
- E.  5,000-9,999 F.  10,000 or more

8. Number of separate discharge points:
- A.  1 B.  2 C.  3 D.  4 E.  5 F.  6 or more

EPA Form 7550-6 (1-79)

**DMR Summary: Maynardville STP**

TN0022870; 0.15 MGD

April 2000

Limits	Flow (MGD)		Biochemical Oxygen Demand			Influent (mg/l)		Suspended Solids			Settleable Solids (ml/l)		pH (std. units)		Cl <sub>2</sub>		Effluent (mg/l)			Fecal Coliform		by-passing	
	Monthly Average	Daily Max	Influent (mg/l)	Effluent (mg/l)	Daily Max	Report	Report	Monthly Average	Daily Max	% Removal	Daily Max	Report	Daily Max	Min	Max	Daily Max	Monthly Average	Daily Max	Daily Min	Daily Max	Monthly Average		Daily Max
	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report		Report
Summer				25	40			30	45							0.06	4.0	8.0					
Winter				25	40			30	45							0.06	7.3	14.5					
Average	0.187	0.374	271	18	27	221.9	17	26	91	0.6	7.1	7.7	0.04	2.2	0.7	4.8	14604	35247					
Maximum	0.563	1.397	563	92	141	460.0	173	210	98	1.0	8.0	8.7	0.06	19.5	9.5	7.8	1002333	2280000					
Minimum	0.054	0.064	93	5	6	13.0	5	7	18	0.1	6.1	7.1	0.02	0.0	0.0	2.3	1	1					
+ = Exceedence				10	9		3	6	3					6		7	2	2				5	

Date	Flow (MGD)	Biochemical Oxygen Demand	Influent (mg/l)	Effluent (mg/l)	Daily Max	% Removal	Influent (mg/l)	Effluent (mg/l)	Daily Max	% Removal	Settleable Solids (ml/l)	pH (std. units)	Cl <sub>2</sub>	Effluent (mg/l)	Fecal Coliform	by-passing
Jan/93	0.098	209	13	32	46 +	90	247	5	19	95	0.1	7.5	7.6	3.80	9.50	7.1
Feb/93	0.092	255	13	23	23	95	244	7	60 +	92	0.1	7.3	7.6	3.10	6.60	7.0
Mar/93	0.125	225.3	16.6	23	23	95.6	230	17	28	92.7	0.5	7.0	7.9	2.96	8.00	5.1
Apr/93	0.103	160.9	22	30	30	73 +	190	28	40	85.3	0.1	6.9	8.5	2.60	3.70	2.6 +
May/93	0.065	209	21	29	29	84 +	209	21	32	90	0.1	6.7	7.4	0.73	1.20	2.9 +
Jun/93	0.071	189.8	17	25	25	86	211.5	13	19	94	0.1	7.4	7.9	0.15	0.20	2.9 +
Jul/93	0.106	169.6	18	22	22	82 +	182	15	19	92	0.3	7.2	7.8	0.28	0.80	2.3 +
Aug/93	0.100	299.8	19	22	22	92	348	17	21	95	0.2	7.2	8.7	3.03	4.60	4.2
Sep/93	0.072	191	17	24	24	84 +	204	18	23	90	1.0	7.0	7.3	3.00	4.80	5.9
Oct/93	0.074	285	15	19	19	92	279	8	12	97	1.0	7.0	7.4	0.20	0.80	6.0
Nov/93	0.097	158	245	14	17	90	256	8	12	97	1.0	7.1	7.3	0.04	0.05	6.3
Dec/93	0.109	185	202	11	16	91	233	8	11	96	1.0	7.2	7.4	0.33	1.20	6.7
Jan/94	0.143	205	23	29	29	84 +	168	22	29	87	1.0	7.3	7.6			6.4
Feb/94	0.122	190	154	21	28	74 +	132.5	22	27	88	1.0	7.4	7.6	0.05	0.07	6.0
Mar/94	0.117	227	220	16	20	88	154	17	22	89	1.0	7.1	7.6	0.09	0.13	6.7
Apr/94	0.085	154	216	12	17	92	181	7	8	96	1.0	7.2	7.6	0.01	0.02	7.3
May/94	0.054	0.064	526	7	8	97	209	6	7	97	1.0	7.2	7.6	0.02	0.02	7.6
Jun/94	0.074	0.124	556	8	10	97	317	6	8	98	1.0	7.4	7.5	0.03	0.06	6.0
Jul/94	0.133	0.280	453	7	9	98	213	8	10	96		7.4	7.6	0.02	0.03	5.6
Aug/94	0.115	0.295	472	7	8	97	460	6	8	98	1.0	7.2	7.5	0.01	0.01	5.9
Sep/94	0.115	0.295	486	10	10	96	229	7	9	97	1.0	7.3	7.6	0.04	0.06	5.4
Oct/94	0.126	0.168	507	7	8	98	320	7	8	98	0.1	7.3	7.9	0.10	0.30	5.6
Nov/94	0.156	0.264	563	19	26	92	351	11	14	96	0.2	7.4	7.7	0.04	0.05	6.6
Dec/94	0.144	0.234	498	20	36	95	232	9	20	97	1.0	6.8	7.9	0.04	0.06	6.8
Jan/95	0.183	0.309	223	9	10	92	189	7	9	97	1.0	7.2	7.9	0.12	0.20	7.8
Feb/95	0.234	0.402	536	30 +	32	94	170	29	34	83 +	1.0	6.9	7.7	0.05	0.10	6.4
Mar/95	0.217	0.422		29 +	36	78 +	219	23	32	90	0.3	7.3	7.7	0.04	0.05	5.3
Apr/95	0.156	0.250	455	27 +	30	91	361	27	29	93	1.0	7.4	8.0	0.23	0.30	4.8
May/95	0.246	0.783	301	17	26	90	276	16	21	94	1.0	7.2	7.5			5.0
Jun/95	0.159	0.499	328	14	19	94	327	13	19	95	1.0	7.1	7.6	0.70	1.00	4.3
Jul/95	0.124	0.163	350	20	25	93	312	22	28	93	1.0	6.3	7.4	0.02	0.03	3.3
Aug/95	0.191	0.776	93	18	24	91	210	19	22	93	1.0	6.2	7.1	0.04	0.05	3.8
Sep/95	0.155	0.230	237	14	17	94	207	10	18	95	1.0	6.6	7.1	0.09	0.30	4.5
Oct/95	0.197	0.421	237	19	29		233	18	28	92	1.0	6.6	7.1	0.10	0.23	4.3
Nov/95	0.270	0.631	231	15	24	94	181	11	20	94	1.0	6.1	7.1			3.7
Dec/95	0.160	0.283	176	11	14	94	197	5	7	97	1.0	6.7	7.3	0.05	0.08	5.5

**DMR Summary; Maynardville STP**

TN0022870; 0.15 MGD

April 2000

	Flow (MGD)		Biochemical Oxygen Demand				Suspended Solids				Effluent (mg/l)								by-passing	
	Monthly Average	Daily Max	Influent (mg/l)	Effluent (mg/l)		% Removal	Influent (mg/l)	Effluent (mg/l)		% Removal	Settleable Solids (ml/l)	pH (std. units)		Cl <sub>2</sub> Daily Max	Ammonia		D.O. Daily Min	Fecal Coliform		
				Monthly Average	Daily Max			Monthly Average	Daily Max			Min	Max		Monthly Average	Daily Max		Monthly Average		Daily Max
Jan/96	0.192	0.494	163	14	20	92	148	12	18	92	1.0	6.1	7.5		0.30	0.40	6.3	134	178	
Feb/96	0.206	0.432	205	23	32	89	168	16	27	91	1.0	6.8	7.6		0.04	0.05	5.7	116	164	
Mar/96	0.241	0.425	180	19	24	89	188	23	28	88	0.5	6.9	7.5		0.13	0.29	4.8	113	144	
Apr/96	0.203	0.301	142	14	16	90	126	11	14	92	0.5	6.7	7.4		0.06	0.09	3.9	57	74	
May/96	0.189	0.402	298	19	28	93	303	19	27	94	0.9	6.9	8.4		0.50	0.00	3.2	113	186	
Jun/96	0.158	0.260	178	17	25	90	106	11	17	89	0.5	6.9	7.8		0.15	0.00	5.0	109	180	
Jul/96	0.133	0.361	422	12	16	97	260	11	13	95	0.1	7.0	7.3	0.02	0.07	0.00	4.9	93	144	
Aug/96	0.191	0.680	292	21	28	93	366	21	24	94		7.1	7.5		0.10	0.00	6.0	67	120	
Sep/96	0.176	0.414	277	19	24	93	234	17	21	93	0.7	7.0	7.3		0.22	0.00	5.1	161	210	
Oct/96	0.159	0.224	218	20	24	91	181	17	20	91		7.1	7.6		0.05	0.00	5.1	110	184	
Nov/96	0.262	0.571	175	18	27	89	179	15	20	91		7.0	7.5		0.04	0.04	5.5	121	188	
Dec/96	0.288	0.773	178	23	27	87	206	20	24	89		7.2	7.8		0.04	0.06	5.7	114	184	
Jan/97	0.372	0.575	216	23	27	89	18	22	25	87	1.0	7.1	7.6		0.06	0.08	5.7	121	266	2
Feb/97	0.300	0.635	242	14	19	94	143	19	29	87		6.6	8.0		0.12	0.12	5.1	171	268	
Mar/97	0.428	0.900	204	16	20	92	125	16	21	87		6.9	8.1		0.02	0.03	3.1	114	228	
Apr/97	0.206	0.432	247	24	26	91	226	11	14	95		6.9	7.4		0.03	0.06	4.1	118	202	
May/97	0.232	0.800	339	17	19	93	323	11	15	94		7.0	7.3		0.04	0.00	4.8	117	164	
Jun/97	0.238	0.560	179	15	22	92	126	10	17	92		7.1	7.8		0.05	0.00	3.0	114	164	
Jul/97	0.202	0.372	192	19	25	90	162	14	20	91		7.0	8.0		0.44	0.00	3.0	114	164	
Aug/97	0.146	0.223	276	10	12	96	226	7	11	96		7.2	7.6		0.06	0.00	3.1	55	124	
Sep/97	0.162	0.321	189	29 +	61 +	85	176	7	9	96		7.0	7.5		0.50	0.00	2.9 +	167	396	
Oct/97	0.135	0.221	177	16	20	91	156			89		7.4	7.7		0.49	0.00	3.0	114	204	
Nov/97	0.171	0.233	316	17	20	92	265	15	10	95		7.3	7.4		1.13	1.40	2.9 +	55	124	
Dec/97	0.195	0.275	262	22	27	89	202	21	24	89		7.4	7.6		0.26	0.45	3.1	102	214	
Jan/98	0.171	0.657	209	16	18	92	182	10	12	94		7.4	7.4		0.14	0.24	3.1	191	268	
Feb/98	0.266	0.505	211	43 +	64 +	79 +	280	28	32	90		7.1	7.2		0.88	1.00	3.1	196	268	
Mar/98	0.460		121	28 +	41 +	77 +	90	8	9	92		7.1	7.8		1.00	1.10	3.0	180	266	
Apr/98	0.563	1.397	202	31 +	62 +	84 +	145	6	8	96		7.5	7.8		0.88	1.10	3.1	196	314	
May/98	0.162	0.279	116	43 +	55 +	63 +	195	27	46 +	86		7.4	7.8		1.03	0.00	3.1	134	212	
Jun/98	0.260	0.531	270	92 +	141 +	66 +	210	173 +	210 +	18 +	0.5	7.3	7.7	0.04	18.40 +	0.00	2.6 +	1002333 +	2280000 +	
Jul/98	0.238	0.879	187	16	34	91	227	33 +	116 +	87	0.1	7.3	8.2	0.06	15.70 +	0.00	5.3	25	80	
Aug/98			226	14	41 +	94	335	17	37	94	0.1	7.3	8.3	0.06	16.00 +	0.00	3.0	31	70	
Sep/98	0.223	0.698	533	32 +	113 +	94	426	42 +	86 +	86	0.2	7.5	8.0		17.90 +	0.00	3.0	16	56	
Oct/98	0.179	0.319	255	10	14	95	281	21	26	93	0.2	7.9	8.1		18.40 +	0.00	4.9	3	4	
Nov/98	0.191	0.285	312	5	12	98	446	18	27	96	0.2	8.0	8.1		19.50	0.00	5.1	8	22	
Dec/98	0.300		288	8	13	96	377	23	55 +	89	0.1	7.5	8.1	0.05	13.30 +	0.00	5.3	42207 +	211000 +	
Jan/99	0.340	0.550	276	6	7	98	176	15	32	90	0.1	7.3	8.0	0.04			5.1	1	1	
Feb/99	0.240	0.350	262	6	6	98	273	11	16	96	0.1	7.4	7.8	0.06			6.3			
Mar/99	0.270	0.090	425	7	10	92	13	13	18	84 +	0.1	7.2	7.8	0.05			6.3	3	7	
Apr/99			177	5	7	97	119	9	16	90	0.1	7.4	7.7	0.05			6.2			

**Planning Standards For a Proposed Discharge**

Maynardville STP; TN0022870  
 North Fork Bull Run Creek Mile 3.1  
 Design Capacity (MGD)

0.60

**Effluent Characteristics**

**Effluent Limitations**

Effluent Characteristics	Monthly	Monthly	Weekly	Weekly	Daily	Daily
	Avg. Conc. mg/l	Avg. Amount lb/day	Avg. Conc. mg/l	Avg. Amount lb/day	Max. Conc. mg/l	Min. Percent Removal
CBOD <sub>5</sub>	25.0	125	35.0	175	40	40
NH <sub>3</sub> , N	1.6	8	2.4	12	3.2	
Suspended Solids	30	150	40	200	45	40
Fecal Coliform	200/100 ml				1000/100 ml	
D.O.	5.0 Instantaneous minimum					
Chlorine residual, T					0.03	
Settleable Sids. (ml/l)					1.0	
pH (standard units)	6.0 - 9.0 Instantaneous minimum and maximum					
Flow	Report				Report	

7-Q-10 low flow for this segment (CFS)

0.53

The total chlorine residual effluent limit is determined by mass balance calculation utilizing the EPA acute toxicity value of 0.019 mg/l for protection of aquatic life.

The CBOD<sub>5</sub> and TSS shall achieve 85% removal on a monthly average basis.

Limitations and conditions contained herein are for planning and design purposes only and as such should not be construed as an indication that a permit will be issued for this project. Application for an NPDES permit should be filed as soon as a selected alternative is determined and project details are formulated.

These limits are valid for one year from the date of issuance.

Composite samples are proportional-to-flow.