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December 20, 2002

Ms. Natalie Harris
Knoxville Environmental Assistance Center
Tennessee Department of Environment
and Conservation
2700 Middlebrook Pike
Suites 210 and 220
Knoxville, Tennessee 37921-5602

Dear Ms. Harris:

TENNESSEE VALLEY AUTHORITY (TVA) - KINGSTON FOSSIL PLANT (KIF) - NPDES PERMIT NO. TN0005452 - APPLICATION FOR RENEWAL

Enclosed are two copies of the NPDES renewal packet for KIF consisting of EPA Form 1, site map, Form 2C, flow schematic, Form 2E, and NPDES permit address form. TVA would appreciate consideration of the following in the renewed permit.

Outfall 001

As indicated in previous correspondence, TVA plans to install NOx-control technology at KIF that may result in ammoniated discharges at Outfall 001 and ultimately Outfall 002. TVA is investigating various options to mitigate the ammoniated discharge including rerouting the 001 discharge to the condenser cooling water discharge, installing a diffuser at the 001 discharge or modeling a submerged discharge at 001 to facilitate mixing. Worst case concentrations of ammonia introduced from NOx-control technology are expected to be approximately 2.46 mg/l assuming no biological uptake; however, based on experience at KIF during NOxTech testing and operation of Selective Catalytic Reduction equipment at other TVA facilities, concentrations are expected at much lower levels in the ash pond discharge during biologically active periods. TVA will present outcomes from modeling the diffuser and submerged open pipe (if appropriate) as soon as they are complete.

TVA requests inclusion of authorization to discharge ammoniated wastewater in the renewed permit such that ammoniated discharges scheduled to occur beginning in January 2004 are authorized.

Outfall 002

1. TVA requests flexibility in the renewed permit to allow for UV treatment of toxicity samples, if granted, without an additional permit modification. TVA submitted a request dated February 22, 2002, to treat toxicity test samples with UV to deal with pathogenic interference at three TVA facilities in Tennessee. The Division of Water Pollution Control (the Division) responded and requested additional information which TVA provided in a letter dated September 17, 2002. While the Division has not yet responded to the latest correspondence, TVA requests that the permit be written such that further modification to the permit to incorporate permission to treat samples, if granted, will not be necessary.

2. Enclosed is a summary of the reasonable potential evaluation and toxicity test results since the last renewal application which was submitted in 1999. TVA requests that the current annual frequency for toxicity testing at Outfall 002 be maintained.

3. TVA requests continuation of the 316(a) variance as incorporated in the current permit. Enclosed are additional data supporting the request. As presented in the enclosed report, TVA believes that the thermal discharges from KIF do not have a negative impact on maintenance of a balanced indigenous population in the Clinch River/upper Watts Bar Reservoir.

Outfall 005

Outfall 005 is an internal waste stream that consists of discharges from the metal cleaning waste pond complex (iron and copper ponds). This pond does not discharge often and was not discharging at the time of the permit renewal sampling. Historical results reported are from a discharge in January 2002 and are only for flow, iron and copper as required to be monitored by the current NPDES permit.

Outfalls 006, 007 and 008

TVA requests that current permit provisions for these outfalls be maintained. These outfalls discharge to the plant intake channel where they mix with the plant intake flow of 1316 million gallons per day (mgd) average flow through the plant.

TVA did not sample Outfall 008 since flow normally occurs only in response to a rainfall event. Historically, the drainage area of 008 has received ash sluice water from occasional ruptured sluice lines. TVA believes that the effluent quality data from 001 very conservatively represent the discharge from 008.

If you have any questions or need additional information about this application for renewal, please contact Lindy Printz Johnson at (423) 751-3361 in Chattanooga, or you may email her at lpjohnson@tva.gov.

Janet K. Watts
Manager
Environmental Affairs
5D Lookout Place

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Enclosures
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EDMS, EB 5G-C (NPDES permit renewal application)

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Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

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Enclosures

Tennessee Valley Authority (TVA) - Kingston Fossil Plant (KIF) - NPDES Permit No. TN0005452 - Application for Renewal

Current Whole Effluent (WET) Toxicity Limit: 7-day or 3-brood IC_{25} = 100% effluent (1.0 TUc)
Monitoring Frequency = Annual

Proposed Whole Effluent (WET) Toxicity Limit: Biomonitoring frequency remaining at annual (1/year), with compliance for fathead minnows based on results from UV treated samples.

In accordance with EPA's recommendation (Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001), KIF Outfall 002 should retain its WET Limit based on a demonstration of Reasonable Potential (RP) for excursions above the ambient water quality acute and chronic (CMC and CCC) criteria. This demonstration of RP was not due to toxicity observed in Outfall 002, but to insufficient flow in the Clinch River for mixing with the combined CCW/ashpond discharge to meet the CMC and CCC criteria of 0.3 TUa and 1.0 TUc, respectively (See "Acute Toxicity" and "Chronic Toxicity" sections on last page.).

Toxicity testing during the current permit period has not indicated acute toxicity (LC_{50}s > 100 percent; < 1.0 TUa) to either test organism (Table 1). No chronic toxicity has been demonstrated in testing with daphnids ((IC_{25}s > 100 percent; < 1.0 TUc), however one fathead minnow test resulted in an IC25 of 16.7 % (6 TUc). Reduced survival was also shown in intake samples tested in conjunction with the compliance test (Table 2). The required follow-up test demonstrated no toxicity. TVA requested that the initial test be invalidated due to evidence of fish pathogen interference seen both in the May 19-26 Kingston biomonitoring and in an extensive investigation conducted by TVA to determine the nature and source of interference in fish tests at three of TVA's Tennessee power production facilities. TDEC's response was that TVA should request sample pretreatment (i.e. exposure to UV radiation) to eliminate fish pathogens prior to fathead minnow testing. Based on tests conducted under the current and previous permits, there appears to be very little facility-induced toxicity associated with this discharge, which usually mimics water quality in the intake (i.e. the Clinch and Emory Rivers upstream). TVA requests that WET biomonitoring continue on an annual frequency and use UV treated samples for fathead minnow compliance determination. Daphnid tests will continue to use untreated samples.

KIF Documentation:

Table 1. Summary of KIF Outfall 002 WET Biomonitoring Results

	Test Date	Test Species	Acute Results (96-h Survival) % Survival in 100% Sample	Acute Results (96-h Survival) LC_{50}/Toxicity Units (TUa)	Chronic Results IC_{25}/Toxicity Units (TUc)
	IC_{25}				
	14. May 20-27, 2001	*Ceriodaphnia dubia*	90	>100/< 1.0	
	May 19-26, 2001	*Pimephales promelas*	68		16.7/6.0
Retest	15. June 12-19, 2001	*Ceriodaphnia dubia*	-*	-*	-*
		Pimephales promelas	100	>100/< 1.0	>100/< 1.0
	16. Feb. 13-20, 2001	*Ceriodaphnia dubia*	100	>100/< 1.0	>100/< 1.0
		Pimephales promelas†	100		
	17. Nov. 5-12, 2002	*Ceriodaphnia dubia*	100	>100/< 1.0	>100/< 1.0
		Pimephales promelas†	100		
	n		7	4	4
	Maximum		100%	>100/< 1.0	16.7/6.0
	Minimum		68%	>100/< 1.0	>100/< 1.0

*Single species retest.

† UV treated fathead minnow test conducted simultaneously with regular compliance test.

Table 2. Fish Survival in Outfall 002 and Intake

	Sample Date	7-Day Fish Survival (%) Undiluted Outfall 002	Intake
	May 19-26, 2001	45	70
Retest	June 12-19, 2001	100	100
	Feb. 13-20, 2002	100	70
	Nov. 5-12, 2002	100	100

DILUTION

Outfall 002 Long Term Average (LTA) = 1316 MGD

Receiving Stream 1Q10 = 155.8 MGD (From Appendix 1, Page R-15 of the current permit, effective March 1, 2001.)

Dilution Factor (DF): $DF = \frac{Qs}{Qw} = \frac{155.8}{1316} = 0.118$

ACUTE TOXICITY

Insufficient dilution is available for demonstrating no reasonable potential for exceeding the acute instream WET criterion (CMC = 0.3 TUa). The dilution factor would need to be greater than 3.0 in order to conduct that demonstration for acute toxicity.

CHRONIC TOXICITY

Insufficient dilution is available for demonstrating no reasonable potential for exceeding the chronic instream WET criterion (CCC = 1.0 TUc). The dilution factor would need to be greater than 1.0 in order to conduct that demonstration for chronic toxicity.

Results of Biological Monitoring in the Vicinity of Kingston Fossil Plant During Autumn 2001 in Support of a Continued 316(a) Thermal Variance

Introduction

Section 316(a) of the Clean Water Act allows point-source discharges of heated water to exceed State water quality thermal criteria based on demonstrating maintenance of "Balanced Indigenous Populations" (BIP) of aquatic life. Kingston Fossil Plant (KIF) is operating under a 316(a) thermal variance that has been administratively continued with each permit renewal based on studies conducted in the mid 1970's. The requirement for conducting 316(a) studies in Tennessee comes from EPA Region IV guidance to the States requiring future variance requests be granted on new data generated to show aquatic communities meet the BIP standard. In response to a letter from TVA Fossil Power Group to Tennessee Department of Environment and Conservation (TDEC), dated May 9, 2001, requesting assessment of adequacy and scope of proposed reservoir fish assemblage index (RFAI) studies for continuance of thermal variances, Tennessee approved the RFAI studies on September 17, 2001. Based on that agreement, the current KIF NPDES permit TN0005452, effective March 1, 2001, requires that RFAI samples be taken once every two years to demonstrate that KIF operation is not impacting BIP. In response to this requirement, TVA initiated a study that will evaluate fish communities in areas immediately upstream and downstream of KIF between the years 2001 and 2003. The purpose of this document is to briefly summarize and provide TDEC the results from monitoring during the first sample period – autumn 2001. A comprehensive report data will be made available on request. The NPDES permit renewal application will be submitted to request renewal of the section 316(a) variance for this facility on or before December 31, 2002.

TVA initiated a Valley-wide reservoir Vital Signs (VS) monitoring program in 1990 to evaluate ecological conditions in major reservoirs. At the core of this monitoring effort is a multi-metric approach to data evaluation. Five environmental indicators are used: dissolved oxygen, chlorophyll, sediment quality, benthic macroinvertebrate community, and the fish community. In the beginning, specific evaluation techniques had to be developed for each indicator. The outcome of this effort was development of multi-metric evaluation techniques for the fish assemblage (Reservoir Fish Assemblage Index - RFAI), as described below. These multi-metric evaluation techniques have proven successful in TVA's monitoring efforts as well as other Federal and State monitoring programs and will form the basis of evaluating these monitoring results.

Methods

Sampling Locations

Two sample locations, one upstream and one downstream of the plant discharge, were selected in upper Watts Bar Reservoir. The KIF discharge enters the Clinch River at Clinch River Mile (CRM) 2.5. For the fish community, the upstream sample site was centered at CRM 4.4, and the downstream site was centered at CRM 1.5.

TVA's VS program has four sample sites on Watts Bar Reservoir (Forebay TRM 531.0, Transition TRM 560.8, Tennessee River Inflow TRM 601, Clinch River Inflow CRM 22.0); one of which (Transition) is relatively close to KIF. The VS reservoir inflow sample site in the Tennessee River is near Fort Loudoun Dam, while the Clinch River inflow sample site is near Melton Hill Dam (MHD).

Fish Community

Fish samples for upstream and downstream locations in upper Watts Bar Reservoir consisted of fifteen 300-meter electrofishing runs (approximately 10 minutes duration) and ten experimental gill net sets (five 6.1 meter panels with mesh sizes of 2.5, 5.1, 7.6, 10.2, and 12.7 cm) per site. Attained values for each of the 12 metrics were compared to reference conditions for transition zones of lower mainstream Tennessee River reservoirs and assigned scores based upon three categories hypothesized to represent relative degrees of degradation: least degraded --5; intermediate --3; and most degraded --1. These categories are based on "expected" fish community characteristics in the absence of human-induced impacts other than impoundment. Individual metric scores for a site are summed to obtain the RFAI score. Comparison of the attained RFAI score from the potential impact zone to a predetermined criterion has been suggested as a method useful in identifying presence of normal community structure and function and hence existence of BIP. For multi-metric indices, two criteria have been suggested to ensure a conservative screening of BIP. First, if an RFAI score reaches 70% of the highest attainable score (adjusted upward to include sample variability), and second, if fewer than half of RFAI metrics potentially influenced by thermal discharge receive a low (1) or moderate (3) score, then normal community structure and function would be present indicating that BIP existed, and, hence, the heated discharge would meet screening criteria and no further evaluation would be needed. The range of RFAI scores possible is from 12 to 60. As discussed in detail below, the average variance for RFAI scores in TVA reservoirs is 6 ($\pm$ 3). Therefore, any location that attains an RFAI score of 45 (42 + our upward sample variance of 3) or higher would be considered to have BIP. It must be stressed that scores below this endpoint do not necessarily reflect an adversely impacted fish community. The endpoint is used to serve as a conservative screening level, i.e., any fish community that meets these criteria is obviously not adversely impacted. RFAI scores below this level would require a more in depth look to determine if BIP exist. An inspection of individual RFAI metric results would be an initial step to help identify if KIF operation is a contributing factor. This approach is appropriate if a validated multi-metric index is being used and scoring criteria applicable to the zone of study are available.

Upstream/downstream stations can be used to identify if KIF operation is adversely impacting the downstream fish community. A similar or higher RFAI score at the downstream site compared to the upstream (control) site is used as one basis for determining presence/absence of KIF operational impacts on the resident fish community. Definition of "similar" is integral to accepting the validity of these interpretations. The Quality Assurance (QA) component of VS monitoring deals with how well the RFAI scores can be repeated and is accomplished by collecting a second set of samples at 15-20% of the sites each year. Experience to date with the QA component of VS shows that comparison of RFAI index scores from 54 paired sample sets collected over the past seven years range from 0 to 18 points, the 75th percentile is 6, the 90th percentile is 12. The mean difference between these 54 paired scores is 4.6 points with 95% confidence limits of 3.4 and 5.8. Based on these results, a difference of 6 points or less is the value selected for defining "similar" scores between upstream and downstream fish communities. That is, if the downstream RFAI score is within 6 points of the upstream score, the communities will be considered similar and it will be concluded that KIF has had no effect. It is important to bear in mind that differences greater than 6 points can be expected simply due to method variation (25% of the QA paired sample sets exceeded that value). When such occurs, a metric by metric examination will be conducted to determine what caused the difference in scores and the potential for the difference to be thermally related.

Modifications in the metrics used in RFAI are being evaluated that will make the index even more reflective of reservoir conditions. Future versions of the RFAI will likely include refined metrics. Comparisons will be made between present and improved RFAI scores.

Results

Fish Community

RFAI results from the site downstream of KIF exceeded the 70% BIP criteria, adjusted upward to include sample variability (i.e., RFAI score ≥45), indicating that the resident fish community below the KIF discharge was above the screening level in autumn 2001. Table 1 provides individual metric scores and the overall RFAI score for upstream and downstream stations. These values (46 for downstream and 48 for upstream) were within the 6 point acceptable variation. Resident fish communities at these locations reached 76.6 and 80.0 percent of their potential, respectively. Therefore, it can be concluded that the KIF heated effluent is not adversely impacting the resident fish community in the Tennessee River in the vicinity of the plant discharge. Electrofishing and gill netting catch rates for individual species from both sites are listed in Table 2. No State or Federal protected fish species were collected, or are known to occur in the vicinity of KIF.

RFAI scores obtained from Vital Signs monitoring sites located upstream and downstream of the KIF discharge, though not in the immediate vicinity, over the past several years revealed similar fish community results (Table 3). Since 1993, the average RFAI score for the upstream site on the Clinch River was 44 and the upstream site on the Tennessee River was 43.6 (73.3 and 72.2% of the maximum score, respectively). Averages for two downstream sites were 47.4 and 42.1 (79.0 and 70.2 % of the maximum score, respectively). All these scores are higher than the adjusted 70% criteria for designation as BIP. However, the nearer downstream site was approximately 10 river miles below the discharge(CRM 2.7) (10 miles above Transition and 21 miles below MHD), and the above plant site on the Clinch River was 21 river miles upstream, immediately below Melton Hill Dam. These data indicate that the plant discharge is not adversely impacting the broader fish community of upper Watts Bar Reservoir.

Table 1. Individual metric scores and the overall Reservoir Fish Assemblage Index (RFAI) score for upstream and downstream sites of the Kingston Fossil Plant discharge in the vicinity of Watts Bar Reservoir, October, 2001.

		Downstream		Upstream	
		CRM 1.5		CRM 4.4	
Metric	**Sample Gear**	**Obs**	**Score**	**Obs**	**Score**
A. Species richness and composition					
1. Number of species		35	5	35	5
2. Number of sunfish species		6	5	6	5
3. Number of sucker species		4	3	5	3
4. Number of intolerant species		3	3	4	3
5. Percent tolerant individuals	Electrofishing	25.36	1.5	14.07	2.5
	Gill Netting	17.32	2.5	20.19	1.5
6. Percent dominance	Electrofishing	44.92	1.5	51.95	1.5
	Gill Netting	16.88	2.5	33.33	1.5
7. Number of piscivore species		11	5	10	5
B. Trophic composition					
8. Percent omnivores	Electrofishing	25.11	1.5	15.15	2.5
	Gill Netting	45.02	0.5	45.07	0.5
9. Percent insectivores	Electrofishing	63.96	2.5	72.29	2.5
	Gill Netting	11.69	1.5	10.80	1.5
C. Reproductive composition					
10. Number of lithophilic spawning species		5	3	8	5
D. Fish abundance and health					
11. Average number of individuals	Electrofishing	78.07	1.5	61.60	1.5
	Gill Netting	23.10	1.5	21.30	1.5
12. Percent anomalies		0.93	5	1.41	5
RFAI			**46**		**48**
			Good		**Good**

Scored with transition criteria

*Percent composition of the single most abundant species

Table 2. Species collected and catch per effort during autumn electrofishing (catch per 300-m run and per hour) and gill netting (catch per net-night) at the upstream and downstream stations of Kingston Fossil Plant, Watts Bar Reservoir, 2001.

	Downstream CRM 1.5			Upstream CRM 4.4		
	Electrofishing		Gill Netting	Electrofishing		Gill Netting
Common Name	Catch Per Run	Catch Per Hour	Catch Per Net Night	Catch Per Run	Catch Per Hour	Catch Per Net Night
Paddlefish	.	.	0.10	.	.	.
Spotted gar	0.13	0.67	.	.	.	.
Skipjack herring	.	.	2.10	.	.	2.00
Gizzard shad	16.87	85.19	3.90	5.80	27.27	3.50
Threadfin shad	0.07	0.34	0.20	0.13	0.63	.
Common carp	1.27	6.40	0.10	2.33	10.97	0.80
Golden shiner	0.60	3.03	.	0.07	0.31	.
Emerald shiner	2.93	14.81	.	0.73	3.45	.
Spotfin shiner	3.60	18.18	.	3.67	17.24	.
Bluntnose minnow	0.13	0.67	.	0.13	0.63	.
River carpsucker	0.07	0.34	.	.	.	.
Smallmouth buffalo	0.53	2.69	1.20	0.47	2.19	.
Black buffalo	.	.	0.30	0.07	0.31	0.20
Spotted sucker	0.73	3.70	0.30	0.53	2.51	0.90
Black redhorse	.	.	.	0.07	0.31	.
Golden redhorse	.	.	.	.	.	0.10
Blue catfish	.	.	3.20	.	.	3.50
Channel catfish	0.13	0.67	1.70	0.47	2.19	1.60
Flathead catfish	0.13	0.67	0.40	0.07	0.31	0.30
White bass	.	.	0.50	0.13	0.63	1.50
Yellow bass	.	.	1.90	0.13	0.63	3.60
Striped bass	.	.	1.40	.	.	0.20
Hybrid striped bass	.	.	0.20	.	.	.
Warmouth	0.13	0.67	.	0.07	0.31	.
Green sunfish	0.73	3.70	.	0.27	1.25	.
Bluegill	35.07	177.10	1.40	32.00	150.47	0.30
Longear sunfish	0.73	3.70	0.10	0.93	4.39	.
Redbreast sunfish	0.33	1.68	.	0.20	0.94	.
Redear sunfish	3.73	18.86	0.30	4.53	21.32	0.50
Hybrid sunfish	.	.	.	0.07	0.31	.
Smallmouth bass	0.40	2.02	.	0.40	1.88	.
Spotted bass	1.20	6.06	0.70	1.00	4.70	0.40
Largemouth bass	6.40	32.32	0.40	5.73	26.96	0.10
White crappie	0.13	0.67	0.60	.	.	0.10
Black crappie	0.07	0.34	1.10	0.13	0.63	0.30
Snubnose darter	.	.	.	0.07	0.31	.
Yellow perch	0.20	1.01	.	0.33	1.57	.
Logperch	0.33	1.68	.	0.07	0.31	.
Sauger	.	.	0.40	.	.	0.90
Freshwater drum	0.27	1.35	0.60	0.07	0.31	0.50
Brook silverside	1.13	5.72	.	0.93	4.39	.
Totals	**78.04**	**394.24**	**23.1**	**61.60**	**289.63**	**21.3**
Number Samples	**15**		**10**	**15**		**10**
Number Fish Collected	**1171**		**231**	**924**		**213**

Total Species Collected	28		24	31		20

Table 3. Recent (1993-2001) RFAI scores collected as part of the Vital Signs monitoring program upstream and downstream of Kingston Fossil Plant, Watts Bar Reservoir.

		Year								
Site	Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	Ave.
Upstream	CRM 22	44	40		48		46		42		44
	TRM 601	38	46		40		50		44		43.6
Downstream	TRM 560.8	53	46		42		48		48		47.4
	TRM 531	39	43		41		45	38	45	44	42.1

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086. Approval expires 5-31-92.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: S F T N 8 6 4 0 0 0 6 6 8 2 T/A C D

LABEL ITEMS

I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix 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.

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' YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK 'X' 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	
	16	17	18		19	20	21
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		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	
	22	23	24		25	26	27
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	
	28	29	30		31	32	33
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	
	34	35	36		37	38	39
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	
	40	41	42		43	44	45

III. NAME OF FACILITY

1 SKIP U S T V A K I N G S T O N F O S S I L P L A N T
15 16-29 30 69

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)* — B. PHONE *(area code & no.)*

2 B A J E S T A N I , M A S O U D S V P of F O S S I L O P | 4 2 3 | 7 5 1 | 3 0 1 3
15 16 45 | 46 - 48 | 49 - 51 | 52 - 55

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 1 1 0 1 M A R K E T S T R E E T L P - 3 K
15 16 45

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 C H A T T A N O O G A	T N	3 7 4 0 2
15 16 40	41 42	47 - 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 7 1 4 S W A N P O N D R D
15 16 45

B. COUNTY NAME

R O A N E
46 70

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
6 H A R R I M A N	T N	3 7 7 4 8	
15 16 40	41 42	47 - 51	52 - 54

CONTINUE ON PAGE 2

CONTINUED FROM PAGE 1

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

A. FIRST	B. SECOND
7491 Electric Services	

C. THIRD	D. FOURTH

VIII. OPERATOR INFORMATION

A. NAME

TENNESSEE VALLEY AUTHORITY

B. Is the name listed as Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC *(other than federal or state)*; O = OTHER *(specify)*

F

(specify)

D. PHONE *(area code & no.)*

(423) 751-3013

E. STREET OR P.O. BOX

1101 MARKET STREET LP-3K

F. CITY OR TOWN

CHATTANOOGA

G. STATE

TN

H. ZIP CODE

37402

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
TN0005452	

B. UIC *(Underground Injection of Fluids)*	E. OTHER *(specify)*
ROA015	5484401 *(specify)* TITLE V

C. RCRA *(Hazardous Wastes)*	E. OTHER *(specify)*
	TNR051787 *(specify)* STORMWATER MSGP

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)*

Kingston Stream Plant is a fossil fueled, steam electric generating plant located near Kingston, Tennessee on Watts Bar Reservoir at Clinch River mile 2.6. The plant has nine coal fired units with a combined rated generating capacity of 1,700 megawatts.

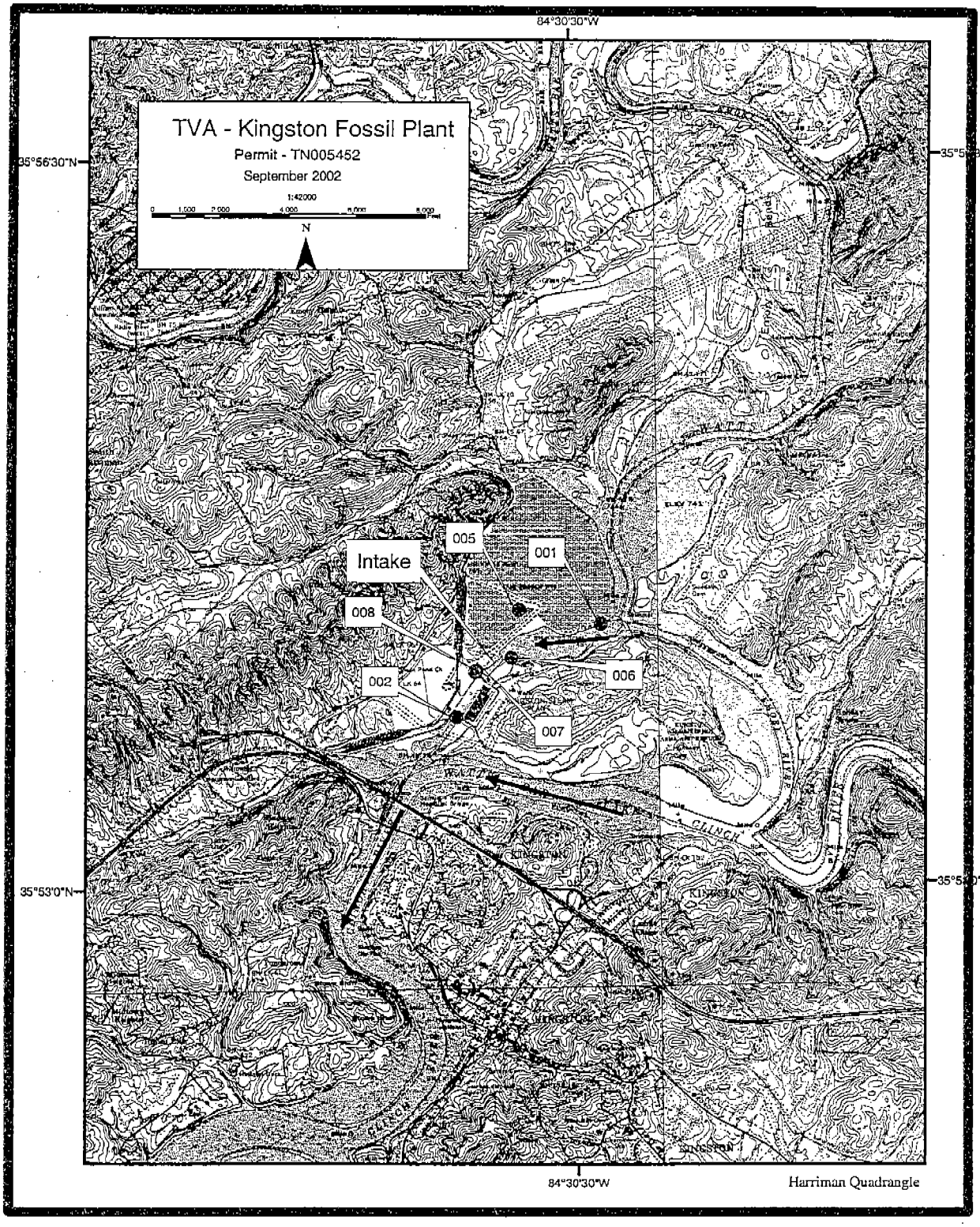
XIII. CERTIFICATION *(see instructions)*

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
Masoud Bajestani, Senior Vice President Fossil Power Group	M. Bajestani	12/17/02

COMMENTS FOR OFFICIAL USE ONLY

EPA Form 3510-1 (8-90)


TVA - Kingston Fossil Plant
Permit - TN005452
September 2002
1:42000
0 1,000 2,000 4,000 6,000 8,000 Feet
N
84°30'30"W
35°56'30"N
35°53'0"N
005
001
Intake
008
002
006
007
Harriman Quadrangle

EPA I.D. NUMBER *(copy from item 1 of Form 1)*
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FORM 2C NPDES

EPA

U. S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
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	1. DEG.	2. MIN	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	35	54	15	84	30	15	Plant Intake Canal (to Clinch River)
002	35	53	45	84	31	15	Clinch River
005	35	54	15	84	31	0	Plant Intake Canal (to Clinch River) via Outfall 001
007	35	54	0	84	30	0	Plant Intake Canal (to Clinch River)
008	35	54	0	84	30	0	Plant Intake Canal (to Clinch River)

II. FLOWS, SOURCES, OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Ash Pond	40.483 MGD	Treatment occurs in a 118 acre		
			settling pond. Ash and other		
			solids remain in the pond		
			and are physically removed		
			periodically.		
			Treatment for 001 includes:		
			(1) Settling	1	U
			(2) Neutralization	2	K
			(3) pH Adjustment (lime addition	X	X
			(4) Discharge to surface	4	A
			water via Plant Intake		
	DSN 001 receives flow from the		Channel.		
	following sources:		(5) Reuse of treated effluent	4	C
			for cooling water		
	(1) Redwater wetlands	0.180 MGD			
	(a) Precipitation	(0.010 MGD)			
	(b) Seepage from Ash Pond	(0.170 MGD)			
	(2) Coal yard runoff pond which	0.145 MGD			
	includes:				
	(a) Coal pile area drainage	(0.1045 MGD)			
	(b) Coal Conveyer area Drainage	(0.0055 MGD)			
	(c) Utility building area drainage	(0.035 MGD)			
	(d) Fire Protection Flush	(0.000064 MGD)			

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

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	1. DEG.	2. MIN	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES, OF POLLUTION, AND TREATMENT TECHNOLOGIES

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B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001 Con't.	(3) Metal cleaning wastes (internal				
	monitoring outfall 005) which	0.005 MGD			
	includes:				
	(a) Copper treatment pond discharge	(0.002 MGD)			
	(i) Chemical metal cleaning	{0.001 MGD}			
	and air preheater wastes				
	(ii) Precipitation	{0.002 MGD}			
	(iii) Less evaporation	{-0.001 MGD}			
	(b) Iron treatment pond discharge				
	(i) Chemical metal cleaning				
	and air preheater wastes				
	(ii) Precipitation	(0.011 MGD)			
	(iii) Less evaporation	(-0.008 MGD)			
	(4) Nonchemical metal cleaning wastes	0.002 MGD			
	(5) Ammonia storage runoff	0.002 MGD			
	(6) Bottom ash sluice water	6.814 MGD			
	and groundwater				
	(7) Fly ash sluice water	25.178 MGD			
	(8) Water treatment plant wastes via	0.267 MGD			
	NLDF Sump, which include:				
	(a) RO System Reject	(0.239 MGD)			
	(b) RO System Backwash	(0.028 MGD)			

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II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

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B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001 cont.	(9) Station sump discharge which	7.712 MGD			
	includes:				
	(a) Ash system leak and boiler	(3.921 MGD)			
	bottom overflow				
	(b) Unit 5-9 ID fan bearing	(0.234 MGD)			
	cooling water				
	(c) Miscellaneous equipment cooling	(3.438 MGD)			
	and lubricating water				
	(d) Fire protection flush	(0.000034 MGD)			
	(e) Floor washing wastes	(0.025 MGD)			
	(f) Roof drains and RC precipitator	(0.018 MGD)			
	washdown (including Control				
	Room AC)				
	(g) Analytical process wastewater	(0.005 MGD)			
	(h) Lab sample stations (Powerhouse	(0.010 MGD)			
	and lab)				
	(i) Leakage	(0.061 MGD)			
	(j) Basement boiler blowdown tank	0 (Startup Only)			
	(10) Precipitation	0.574 MGD			
	(11) Less Evaporation	-0.238 MGD			
	(12) Less seepage to redwater wetland	-0.170 MGD			
	(13) AAF precipitator washdown	0.012 MGD			

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II. FLOWS, SOURCES, OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
002	Condenser cooling water discharge	1,296.912 MGD	Discharge to surface water	4	A
	channel. DSN 002 receives flow from the				
	following sources:				
	(1) Runoff from the transformer yard	0.010 MGD	South underflow ponds retain	1	U
	(south) and the switchyard (South)		solids		
	via underflow ponds				
	(a) Fire protection flush	(0.00008 MGD)			
	(b) Fire protection leakage	(0.00092 MGD)			
	(c) Precipitation	(0.009 MGD)			
	(2) Boiler blowdown	0.014 MGD			
	(3) Once-through condenser cooling	1,296.627 MGD			
	water (raw river water)				
	(4) Intake screen backwash	0.243 MGD			
	(5) Precipitator area runoff	0.018 MGD			
	Flows are:				
	(a) Fire protection flush	(0.000019 MGD)			
	(b) Precipitation	(0.018 MGD)			

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1. OUTFALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
005	Metal cleaning wastewater from iron and	0.005 MGD	Chemical metal cleaning		
	copper treatment ponds. Wastewater		and non-chemical (water only)		
	treated by batch and discharged to		metal cleaning wastes are		
	surface water via ash pond DSN 001.		treated in 2.4 and 22 acre-feet		
			ponds. Treatment includes:		
			1. pH adjustment	X	X
			2. Aeration	1	O
			3. Chemical Precipitation	2	C
			4. Settling	1	U
			5. Neutralization in ash pond	2	K
			6. Discharge via DSN 001	4	A
			(See part II.C for additional		
			information)		

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

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II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

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1. OUT-FALL NO (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
007	North Parking Area Drainage and	0.052 MGD	Discharge to surface water	4	A
	Abandoned Ash Pond Area Seepage		at plant intake		

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

TVA-00025020

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FORM **2C** NPDES

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1. OUTFALL NO *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
008	Drainage from Sluice Line Trench	0.016 MGD	Settling	1	U
	008 Receives flow from the		Discharge to surface water	4	A
	following sources:				
	(1) Precipitation	0.016 MGD			
	(2) Intermittent discharge from	0			
	ruptured ash sluice line				

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?
[X] YES *(complete the following table)* [ ] NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*
005	Possible contributing flows (a) Batch discharges of boiler cleaning chemicals; (b) raw river water used to wash air preheaters; and (c) Accumulated precipitation.	Boilers are cleaned on a cycle of approximately two per year. However current procedures recover and dispose the wastewater without sending it to the Cu pond. The pond recieves an average of 0.002 MGD from precipitation, and an annual average loss of 0.001 MGD from evaporation. Approximately eight air preheater cleanings are made per year. Current procedures are to route this wastewater directly to the ash pond. However, the ponds are expected to receive process wastewater over the next five years. The Fe pond receives an annual average of 0.011 MGD from precipitation and an annual average loss of 0.008 MGD from evaporation.							

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?
[X] YES *(complete Item III-B)* [ ] NO *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?
[ ] YES *(complete Item III-C)* [X] NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.
[ ] YES *(complete the following table)* [X] NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.
[ ] MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

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V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ **YES** *(list all such pollutants below)* ☒ **NO** *(go to Item VI-B)*

CONTINUED FROM PAGE 3

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

[X] YES *(identify the test(s) and describe their purposes below)* [ ] NO *(go to Section VIII)*

The current permit requires annual chronic toxicity testing at Outfall 002.
Results have been submitted to the State as required by the permit.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

[X] YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* [ ] NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Test America, Inc.	2960 Foster Creighton Dr. Nashville, TN. 37204-0566	(615) 726-0177	Total Cyanide and Total Phenol

IX. 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 person or 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.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Masoud Bajestani, Senior Vice President, Fossil Operations	(423) 751-3013
C. SIGNATURE M. Bajesto	**D. DATE SIGNED** 12/17/02

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

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V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	< 2						1	mg/L		3		1
b. Chemical Oxygen Demand *(COD)*	48						1	mg/L		27		1
c. Total Organic Carbon *(TOC)*	2.6						1	mg/L		3.2		1
d. Total Suspended Solids *(TSS)*	24				13.5		13	mg/L		8		1
e. Ammonia *(as N)*	< 0.02						1	mg/L		0.05		1
f. Flow	VALUE 42.2		VALUE		VALUE 24.7		53	MGD		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 27.3		VALUE		VALUE		1	°C		VALUE 26.5		1
i. pH	MINIMUM 6.6	MAXIMUM 8.6	MINIMUM	MAXIMUM			73	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)			<2						1	mg/L		< 2		1
b. Chlorine, Total Residual			< 0.05						1	mg/L		< 0.05		2
c. Color			< 1						1	PC Units		5		1
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)			0.30						1	mg/L		0.15		1
f. Nitrate-Nitrite *(as N)*			< 0.03						1	mg/L		0.20		1

ITEM V-B CONTINUED FROM PAGE V-1

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)	X		0.26						1	mg/L		0.28		1
h. Oil and Grease	X		< 5				< 5		13	mg/L		< 5		1
i. Phosphorus (as P), Total (7723-14-0)	X		0.21						1	mg/L		0.04		1
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium Total		X												
(4) Radium 226, Total		X												
k. Sulfate (as SO_4) (14808-79-8)	X		63						1	mg/L		24		1
l. Sulfide (as S)	X		< 0.02						1	mg/L		< 0.02		1
m. Sulfite (as SO_3) (14265-45-3)	X		0.64						1	mg/L		0.64		1
n. Surfactants	X		< 0.1						1	mg/L		< 0.1		1
o. Aluminum, Total (7429-90-5)	X		0.99						1	mg/L		0.28		1
p. Barium, Total (7440-39-3)	X		0.45						1	mg/L		0.043		1
q. Boron, Total (7440-42-8)	X		0.3						1	mg/L		< 0.2		1
r. Cobalt, Total (7440-48-4)	X		< 0.001						1	mg/L		< 0.001		1
s. Iron, Total (7439-89-6)	X		0.28						1	mg/L		0.21		1
t. Magnesium, Total (7439-95-4)	X		11						1	mg/L		9.9		1
u. Molybdenum, Total (7439-98-7)	X		0.086						1	mg/L		< 0.02		1
v. Manganese, Total (7439-96-5)	X		0.034						1	mg/L		0.082		1
w. Tin, Total (7440-31-5)	X		< 0.05						1	mg/L		< 0.05		1
x. Titanium, Total (7440-32-6)	X		0.037						1	mg/L		0.0075		1

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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			0.0073						1	mg/L		< 0.001		1
2M. Arsenic, Total (7440-38-2)	X			0.09						1	mg/L		< 0.001		1
3M. Beryllium, Total (7440-41-7)	X			< 0.001						1	mg/L		< 0.001		1
4M. Cadmium, Total (7440-43-9)	X			< 0.0001						1	mg/L		< 0.0001		1
5M. Chromium, Total (7440-47-3)	X			0.007						1	mg/L		< 0.001		1
6M. Copper, Total (7440-50-8)	X			< 0.001						1	mg/L		< 0.001		1
7M. Lead, Total (7439-92-1)	X			< 0.002						1	mg/L		< 0.001		1
8M. Mercury, Total (7439-97-6)	X			< 0.0001						1	mg/L		< 0.0001		1
9M. Nickel, Total (7440-02-0)	X			0.002						1	mg/L		0.009		1
10M. Selenium, Total (7782-49-2)	X			0.024						1	mg/L		< 0.001		1
11M. Silver, Total (7440-22-4)	X			0.0001						1	mg/L		< 0.0001		1
12M. Thallium, Total (7440-28-0)	X			< 0.002						1	mg/L		< 0.002		1
13M. Zinc, Total (7440-66-6)	X			0.014						1	mg/L		0.012		1
14M. Cyanide, Total (57-12-5)	X			< 0.005						1	mg/L		< 0.005		1
15M. Phenols, Total	X			< 0.005						1	mg/L		< 0.005		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM PAGE V-3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			< 0.001						1	mg/L		< 0.001		1
2V. Acrylonitrile (107-13-1)	X			< 0.001						1	mg/L		< 0.001		1
3V. Benzene (71-43-2)	X			< 0.001						1	mg/L		< 0.001		1
4V. Bis (*Chloromethyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			< 0.001						1	mg/L		< 0.001		1
6V. Carbon Tetrachloride (56-23-5)	X			< 0.001						1	mg/L		< 0.001		1
7V. Chlorobenzene (108-90-7)	X			< 0.001						1	mg/L		< 0.001		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.001						1	mg/L		< 0.001		1
9V. Chloroethane (75-00-3)	X			< 0.001						1	mg/L		< 0.001		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			< 0.001						1	mg/L		< 0.001		1
11V. Chloroform (67-66-3)	X			< 0.0005						1	mg/L		< 0.0005		1
12V. Dichlorobromomethane (75-27-4)	X			< 0.001						1	mg/L		< 0.001		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.001						1	mg/L		< 0.001		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.001						1	mg/L		< 0.001		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.001						1	mg/L		< 0.001		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.001						1	mg/L		< 0.001		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.001						1	mg/L		< 0.001		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.001						1	mg/L		< 0.001		1
19V. Ethylbenzene (100-41-4)	X			< 0.001						1	mg/L		< 0.001		1
20V. Methyl Bromide (74-83-9)	X			< 0.001						1	mg/L		< 0.001		1
21V. Methyl Chloride (74-87-3)	X			< 0.001						1	mg/L		< 0.001		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.001						1	mg/L		< 0.001		1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			< 0.0005						1	mg/L		< 0.0005		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.0005						1	mg/L		< 0.0005		1
25V. Toluene (108-88-3)	X			< 0.001						1	mg/L		< 0.001		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			< 0.001						1	mg/L		< 0.001		1
27V. 1,1,1-Trichloroethane (71-55-6)	X			< 0.001						1	mg/L		< 0.001		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.0002						1	mg/L		< 0.0002		1
29V. Trichloroethylene (79-01-6)	X			< 0.001						1	mg/L		< 0.001		1
30V. Trichlorofluoromethane (75-69-4)	X			< 0.001						1	mg/L		< 0.001		1
31V. Vinyl Chloride (75-01-4)	X			< 0.002						1	mg/L		< 0.002		1
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.005						1	mg/L		< 0.005		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.005						1	mg/L		< 0.005		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.005						1	mg/L		< 0.005		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.024						1	mg/L		< 0.024		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.042						1	mg/L		< 0.042		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.005						1	mg/L		< 0.005		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.03						1	mg/L		< 0.03		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.024						1	mg/L		< 0.024		1
9A. Pentachlorophenol (87-86-5)	X			< 0.005						1	mg/L		< 0.005		1
10A. Phenol (108-95-2)	X			< 0.005						1	mg/L		< 0.005		1
11A. 2,4,6-Trichlorophenol (88-06-2)	X			< 0.0027						1	mg/L		< 0.0027		1

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.001						1	mg/L		< 0.001		1
2B. Acenaphtylene (208-96-8)	X			< 0.001						1	mg/L		< 0.001		1
3B. Anthracene (120-12-7)	X			< 0.0007						1	mg/L		< 0.0007		1
4B. Benzidine (92-87-5)	X			< 0.00008						1	mg/L		< 0.00008		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.0003						1	mg/L		< 0.0003		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.0003						1	mg/L		< 0.0003		1
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			< 0.0003						1	mg/L		< 0.0003		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.001						1	mg/L		< 0.001		1
9B. Benzo *(k)* Fluoranthene (207-08-9)	X			< 0.0003						1	mg/L		< 0.0003		1
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)	X			< 0.005						1	mg/L		< 0.005		1
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)	X			< 0.001						1	mg/L		< 0.001		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.005						1	mg/L		< 0.005		1
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)	X			0.009						1	mg/L		0.007		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			< 0.005						1	mg/L		< 0.005		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.005						1	mg/L		< 0.005		1
16B. 2-Chloro-naphthalene (91-58-7)	X			< 0.005						1	mg/L		< 0.005		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			< 0.005						1	mg/L		< 0.005		1
18B. Chrysene (218-01-9)	X			< 0.001						1	mg/L		< 0.001		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.001						1	mg/L		< 0.001		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.002						1	mg/L		< 0.002		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.002						1	mg/L		< 0.002		1

CONTINUE ON PAGE V-7

EPA I.D. NUMBER (copy from Item 1 of Form 1): TN8640006682

OUTFALL NUMBER: 001

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.0044						1	mg/L		< 0.0044		1
23B. 3,3'-Dichlorobenzidine (91-94-1)	X			< 0.025						1	mg/L		< 0.025		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.0019						1	mg/L		< 0.0019		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.0016						1	mg/L		< 0.0016		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.0025						1	mg/L		< 0.0025		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.001						1	mg/L		< 0.001		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.005						1	mg/L		< 0.005		1
29B. Di-N-Octyl Phthalate (117-84-0)	X			< 0.01						1	mg/L		< 0.01		1
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X												
31B. Fluoranthene (206-44-0)	X			< 0.001						1	mg/L		< 0.001		1
32B. Fluorene (86-73-7)	X			< 0.0003						1	mg/L		< 0.0003		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.001						1	mg/L		< 0.001		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.005						1	mg/L		< 0.005		1
35B. Hexachlorocyclopentadiene (77-47-4)	X			< 0.03						1	mg/L		< 0.03		1
36B. Hexachloroethane (67-72-1)	X			< 0.0005						1	mg/L		< 0.0005		1
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			< 0.001						1	mg/L		< 0.001		1
38B. Isophorone (78-59-1)	X			< 0.005						1	mg/L		< 0.005		1
39B. Naphthalene (91-20-3)	X			< 0.001						1	mg/L		< 0.001		1
40B. Nitrobenzene (98-95-3)	X			< 0.01						1	mg/L		< 0.01		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.001						1	mg/L		< 0.001		1
42B. N-Nitrosodi-Propylamine (621-64-7)	X			< 0.00008						1	mg/L		< 0.00008		1

CONTINUED FROM PAGE V-7

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)	X			< 0.005						1	mg/L		< 0.005		1
44B. Phenanthrene (85-01-8)	X			< 0.0007						1	mg/L		< 0.0007		1
45B. Pyrene (129-00-0)	X			< 0.0003						1	mg/L		< 0.0003		1
46B. 1,2,4 - Trichlorobenzene (120-82-1)	X			< 0.005						1	mg/L		< 0.005		1
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X	< 0.00001						1	mg/L		< 0.00001		1
2P. α-BHC (319-84-6)			X	< 0.00001						1	mg/L		< 0.00001		1
3P. β -BHC (319-85-7)			X	< 0.00001						1	mg/L		< 0.00001		1
4P. γ- BHC (58-89-9)			X	< 0.00001						1	mg/L		< 0.00001		1
5P. δ- BHC (319-86-8)			X	< 0.00001						1	mg/L		< 0.00001		1
6P. Chlordane (57-74-9)			X	< 0.00001						1	mg/L		< 0.00001		1
7P. 4,4'-DDT (50-29-3)			X	< 0.00001						1	mg/L		< 0.00001		1
8P. 4,4'-DDE (72-55-9)			X	< 0.00001						1	mg/L		< 0.00001		1
9P. 4,4'-DDD (72-54-8)			X	< 0.00001						1	mg/L		< 0.00001		1
10P. Dieldrin (60-57-1)			X	< 0.00001						1	mg/L		< 0.00001		1
11P. α-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L		< 0.00001		1
12P. β-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L		< 0.00001		1
13P. Endosulfan Sulfate (1031-07-8)			X	< 0.00001						1	mg/L		< 0.00001		1
14P. Endrin (72-20-8)			X	< 0.00001						1	mg/L		< 0.00001		1
15P. Endrin Aldehyde (7421-93-4)			X	< 0.00001						1	mg/L		< 0.00001		1
16P. Heptachlor (76-44-8)			X	< 0.00001						1	mg/L		< 0.00001		1

CONTINUE ON PAGE V-9

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
TN8640006682	001

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. LONG TERM AVERAGE VALUE		a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES (continued)															
17B. Heptachlor Epoxide (1024-57-3)			X	< 0.00001						1	mg/L		< 0.00001		1
18P. PCB-1242 (53469-21-9)			X	< 0.00005						1	mg/L		< 0.00005		1
19P. PCB-1254 (11097-69-1)			X	< 0.00005						1	mg/L		< 0.00005		1
20P. PCB-1221 (11104-28-2)			X	< 0.00005						1	mg/L		< 0.00005		1
21P. PCB-1232 (11141-16-5)			X	< 0.00005						1	mg/L		< 0.00005		1
22P. PCB-1248 (12672-29-6)			X	< 0.00005						1	mg/L		< 0.00005		1
23P. PCB-1260 (11096-82-5)			X	< 0.00005						1	mg/L		< 0.00005		1
24P. PCB-1016 (12674-11-2)			X	< 0.00005						1	mg/L		< 0.00005		1
25P. Toxaphene (8001-35-2)			X	< 0.0005						1	mg/L		< 0.0005		1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: TN8640006682

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 002

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	6						1	mg/L				
b. Chemical Oxygen Demand *(COD)*	41						1	mg/L				
c. Total Organic Carbon *(TOC)*	3.9						1	mg/L				
d. Total Suspended Solids *(TSS)*	7.0						1	mg/L				
e. Ammonia *(as N)*	0.05						1	mg/L				
f. Flow	VALUE 1389		VALUE		VALUE 1316		365	MGD		VALUE		
g. Temperature *(winter)*	VALUE 27.1		VALUE		VALUE 18.6		182	°C		VALUE		
h. Temperature *(summer)*	VALUE 34.7		VALUE		VALUE 28.8		183	°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 8.2	MINIMUM	MAXIMUM			61	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X	<2						1	mg/L				
b. Chlorine, Total Residual		X	< 0.05						2	mg/L				
c. Color	X		5						1	PC Unit				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X	0.10						1	mg/L				
f. Nitrate-Nitrite *(as N)*	X		0.26						1	mg/L				

ITEM V-B CONTINUED FROM PAGE V-1

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)	X		0.29						1	mg/L				
h. Oil and Grease		X	< 5						1	mg/L				
i. Phosphorus (as P), Total (7723-14-0)	X		0.04						1	mg/L				
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (as SO_4) (14808-79-8)	X		26						1	mg/L				
l. Sulfide (as S)	X		< 0.02						1	mg/L				
m. Sulfite (as SO_3) (14265-45-3)	X		0.64						1	mg/L				
n. Surfactants	X		< 0.1						1	mg/L				
o. Aluminum, Total (7429-90-5)	X		0.29						1	mg/L				
p. Barium, Total (7440-39-3)	X		0.055						1	mg/L				
q. Boron, Total (7440-42-8)	X		< 0.2						1	mg/L				
r. Cobalt, Total (7440-48-4)	X		< 0.001						1	mg/L				
s. Iron, Total (7439-89-6)	X		0.23						1	mg/L				
t. Magnesium, Total (7439-95-4)	X		11						1	mg/L				
u. Molybdenum, Total (7439-98-7)	X		< 0.02						1	mg/L				
v. Manganese, Total (7439-96-5)	X		0.066						1	mg/L				
w. Tin, Total (7440-31-5)	X		< 0.05						1	mg/L				
x. Titanium, Total (7440-32-6)	X		0.0083						1	mg/L				

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
TN8640006682	002

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-0)	X			< 0.001						1	mg/L				
2M. Arsenic, Total (7440-38-2)	X			0.0024						1	mg/L				
3M. Beryllium, Total, (7440-41-7)	X			< 0.001						1	mg/L				
4M. Cadmium, Total (7440-43-9)	X			< 0.0001						1	mg/L				
5M. Chromium, Total (7440-47-3)	X			< 0.001						1	mg/L				
6M. Copper, Total (7440-50-8)	X			0.004						1	mg/L				
7M. Lead, Total (7439-92-1)	X			< 0.001						1	mg/L				
8M. Mercury, Total (7439-97-6)	X			< 0.0001						1	mg/L				
9M. Nickel, Total (7440-02-0)	X			< 0.001						1	mg/L				
10M. Selenium, Total (7782-49-2)	X			0.0028						1	mg/L				
11M. Silver, Total (7440-22-4)	X			< 0.0001						1	mg/L				
12M. Thallium, Total (7440-28-0)	X			< 0.002						1	mg/L				
13M. Zinc, Total (7440-66-6)	X			0.012						1	mg/L				
14M. Cyanide, Total (57-12-5)	X			< 0.005						1	mg/L				
15M. Phenols, Total	X			< 0.005						1	mg/L				
DIOXIN														
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS										

CONTINUED FROM PAGE V-3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			< 0.001						1	mg/L				
2V. Acrylonitrile (107-13-1)	X			< 0.001						1	mg/L				
3V. Benzene (71-43-2)	X			< 0.001						1	mg/L				
4V. Bis *(Chloromethyl)* Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			< 0.001						1	mg/L				
6V. Carbon Tetrachloride (56-23-5)	X			< 0.001						1	mg/L				
7V. Chlorobenzene (108-90-7)	X			< 0.001						1	mg/L				
8V. Chlorodibromomethane (124-48-1)	X			< 0.001						1	mg/L				
9V. Chloroethane (75-00-3)	X			< 0.001						1	mg/L				
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			< 0.001						1	mg/L				
11V. Chloroform (67-66-3)	X			< 0.0005						1	mg/L				
12V. Dichlorobromomethane (75-27-4)	X			< 0.001						1	mg/L				
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.001						1	mg/L				
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.001						1	mg/L				
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.001						1	mg/L				
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.001						1	mg/L				
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.001						1	mg/L				
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.001						1	mg/L				
19V. Ethylbenzene (100-41-4)	X			< 0.001						1	mg/L				
20V. Methyl Bromide (74-83-9)	X			< 0.001						1	mg/L				
21V. Methyl Chloride (74-87-3)	X			< 0.001						1	mg/L				

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.001						1	mg/L				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			< 0.0005						1	mg/L				
24V. Tetrachloroethylene (127-18-4)	X			< 0.0005						1	mg/L				
25V. Toluene (108-88-3)	X			< 0.001						1	mg/L				
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			< 0.001						1	mg/L				
27V. 1,1,1-Trichloroethane (71-55-6)	X			< 0.001						1	mg/L				
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.0002						1	mg/L				
29V. Trichloroethylene (79-01-6)	X			< 0.001						1	mg/L				
30V. Trichlorofluoromethane (75-69-4)	X			< 0.001						1	mg/L				
31V. Vinyl Chloride (75-01-4)	X			< 0.002						1	mg/L				
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.005						1	mg/L				
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.005						1	mg/L				
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.005						1	mg/L				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.024						1	mg/L				
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.042						1	mg/L				
6A. 2-Nitrophenol (88-75-5)	X			< 0.005						1	mg/L				
7A. 4-Nitrophenol (100-02-7)	X			< 0.03						1	mg/L				
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.024						1	mg/L				
9A. Pentachlorophenol (87-86-5)	X			< 0.005						1	mg/L				
10A. Phenol (108-95-2)	X			< 0.005						1	mg/L				
11A. 2,4,6-Trichlorophenol (88-06-2)	X			< 0.0027						1	mg/L				

CONTINUE ON PAGE V-6

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.001						1	mg/L				
2B. Acenaphtylene (208-96-8)	X			< 0.001						1	mg/L				
3B. Anthracene (120-12-7)	X			< 0.0007						1	mg/L				
4B. Benzidine (92-87-5)	X			< 0.00008						1	mg/L				
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.0003						1	mg/L				
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.0003						1	mg/L				
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			< 0.0003						1	mg/L				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.001						1	mg/L				
9B. Benzo *(k)* Fluoranthene (207-08-9)	X			< 0.0003						1	mg/L				
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)	X			< 0.005						1	mg/L				
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)	X			< 0.001						1	mg/L				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.005						1	mg/L				
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)	X			0.003						1	mg/L				
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			< 0.005						1	mg/L				
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.005						1	mg/L				
16B. 2-Chloro-naphthalene (91-58-7)	X			< 0.005						1	mg/L				
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			< 0.005						1	mg/L				
18B. Chrysene (218-01-9)	X			< 0.001						1	mg/L				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.001						1	mg/L				
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.002						1	mg/L				
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.002						1	mg/L				

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST-ING REQUIRED	b. BE-LIEVED PRESENT	c. BE-LIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANAL-YSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichloro-benzene (106-46-7)	X			< 0.0044						1	mg/L				
23B. 3,3'-Dichloro-benzidine (91-94-1)	X			< 0.025						1	mg/L				
24B. Diethyl Phthalate (84-66-2)	X			< 0.0019						1	mg/L				
25B. Dimethyl Phthalate (131-11-3)	X			< 0.0016						1	mg/L				
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.0025						1	mg/L				
27B. 2,4-Dinitro-toluene (121-14-2)	X			< 0.001						1	mg/L				
28B. 2,6-Dinitro-toluene (606-20-2)	X			< 0.005						1	mg/L				
29B. Di-N-Octyl Phthalate (117-84-0)	X			< 0.01						1	mg/L				
30B. 1,2-Diphenyl-hydrazine (as Azo-benzene) (122-66-7)			X												
31B. Fluoranthene (206-44-0)	X			< 0.001						1	mg/L				
32B. Fluorene (86-73-7)	X			< 0.0003						1	mg/L				
33B. Hexachlorobenzene (118-74-1)	X			< 0.001						1	mg/L				
34B. Hexa-chlorobutadiene (87-68-3)	X			< 0.005						1	mg/L				
35B. Hexachloro-cyclopentadiene (77-47-4)	X			<0.03						1	mg/L				
36B. Hexachloro-ethane (67-72-1)	X			< 0.0005						1	mg/L				
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			< 0.001						1	mg/L				
38B. Isophorone (78-59-1)	X			< 0.005						1	mg/L				
39B. Naphthalene (91-20-3)	X			< 0.001						1	mg/L				
40B. Nitrobenzene (98-95-3)	X			< 0.01						1	mg/L				
41B. N-Nitro-sodimethylamine (62-75-9)	X			< 0.001						1	mg/L				
42B. N-Nitrosodi-Propylamine (621-64-7)	X			< 0.00008						1	mg/L				

CONTINUE ON PAGE V-8

CONTINUED FROM PAGE V-7

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)	X			< 0.005						1	mg/L				
44B. Phenanthrene (85-01-8)	X			< 0.0007						1	mg/L				
45B. Pyrene (129-00-0)	X			< 0.0003						1	mg/L				
46B. 1,2,4 - Trichlorobenzene (120-82-1)	X			< 0.005						1	mg/L				
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X	< 0.00001						1	mg/L				
2P. α -BHC (319-84-6)			X	< 0.00001						1	mg/L				
3P. β -BHC (319-85-7)			X	< 0.00001						1	mg/L				
4P. γ- BHC (58-89-9)			X	< 0.00001						1	mg/L				
5P. δ- BHC (319-86-8)			X	< 0.00001						1	mg/L				
6P. Chlordane (57-74-9)			X	< 0.00001						1	mg/L				
7P. 4,4'-DDT (50-29-3)			X	< 0.00001						1	mg/L				
8P. 4,4'-DDE (72-55-9)			X	< 0.00001						1	mg/L				
9P. 4,4'-DDD (72-54-8)			X	< 0.00001						1	mg/L				
10P. Dieldrin (60-57-1)			X	< 0.00001						1	mg/L				
11P. α-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L				
12P. β-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L				
13P. Endosulfan Sulfate (1031-07-8)			X	< 0.00001						1	mg/L				
14P. Endrin (72-20-8)			X	< 0.00001						1	mg/L				
15P. Endrin Aldehyde (7421-93-4)			X	< 0.00001						1	mg/L				
16P. Heptachlor (76-44-8)			X	< 0.00001						1	mg/L				

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
TN8640006682	002

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. LONG TERM AVERAGE VALUE a. CONCENTRATION	a. LONG TERM AVERAGE VALUE b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - PESTICIDES (continued)															
17B. Heptachlor Epoxide (1024-57-3)			X	< 0.00001						1	mg/L				
18P. PCB-1242 (53469-21-9)			X	< 0.00005						1	mg/L				
19P. PCB-1254 (11097-69-1)			X	< 0.00005						1	mg/L				
20P. PCB-1221 (11104-28-2)			X	< 0.00005						1	mg/L				
21P. PCB-1232 (11141-16-5)			X	< 0.00005						1	mg/L				
22P. PCB-1248 (12672-29-6)			X	< 0.00005						1	mg/L				
23P. PCB-1260 (11096-82-5)			X	< 0.00005						1	mg/L				
24P. PCB-1016 (12674-11-2)			X	< 0.00005						1	mg/L				
25P. Toxaphene (8001-35-2)			X	< 0.0005						1	mg/L				

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: TN8640006682

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 005

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*												
e. Ammonia *(as N)*												
f. Flow	VALUE 3.2		VALUE		VALUE		1	MGD		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly or indirectly but expressly in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)														
b. Chlorine Total Residual														
c. Color														
d. Fecal Coliform														
e. Fluoride (16984-48-8)														
f. Nitrate-Nitrite *(as N)*														

ITEM V-B CONTINUED FROM PAGE V-1

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)														
h. Oil and Grease														
i. Phosphorus (as P), Total (7723-14-0)														
j. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														
(4) Radium 226, Total														
k. Sulfate (as SO_4) (14808-79-8)														
l. Sulfide (as S)														
m. Sulfite (as SO_3) (14265-45-3)														
n. Surfactants														
o. Aluminum, Total (7429-90-5)														
p. Barium, Total (7440-39-3)														
q. Boron, Total (7440-42-8)														
r. Cobalt, Total (7440-48-4)														
s. Iron, Total (7439-89-6)			0.19						2	mg/l				
t. Magnesium, Total (7439-95-4)														
u. Molybdenum, Total (7439-98-7)														
v. Manganese, Total (7439-96-5)														
w. Tin, Total (7440-31-5)														
x. Titanium, Total (7440-32-6)														

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
TN8640006682	005

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium, Total (7440-41-7)															
4M. Cadmium, Total (7440-43-9)															
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7440-50-8)				0.066						2	mg/l				
7M. Lead, Total (7439-92-1)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-22-4)															
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440-66-6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

CONTINUED FROM PAGE V-3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)															
2V. Acrylonitrile (107-13-1)															
3V. Benzene (71-43-2)															
4V. Bis (Chloromethyl) Ether (542-88-1)															
5V. Bromoform (75-25-2)															
6V. Carbon Tetrachloride (56-23-5)															
7V. Chlorobenzene (108-90-7)															
8V. Chlorodibromomethane (124-48-1)															
9V. Chloroethane (75-00-3)															
10V. 2-Chloroethylvinyl Ether (110-75-8)															
11V. Chloroform (67-66-3)															
12V. Dichlorobromomethane (75-27-4)															
13V. Dichlorodifluoromethane (75-71-8)															
14V. 1,1-Dichloroethane (75-34-3)															
15V. 1,2-Dichloroethane (107-06-2)															
16V. 1,1-Dichloroethylene (75-35-4)															
17V. 1,2-Dichloropropane (78-87-5)															
18V. 1,3-Dichloropropylene (542-75-6)															
19V. Ethylbenzene (100-41-4)															
20V. Methyl Bromide (74-83-9)															
21V. Methyl Chloride (74-87-3)															

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)															
23V. 1,1,2,2-Tetrachloroethane (79-34-5)															
24V. Tetrachloroethylene (127-18-4)															
25V. Toluene (108-88-3)															
26V. 1,2-Trans-Dichloroethylene (156-60-5)															
27V. 1,1,1-Trichloroethane (71-55-6)															
28V. 1,1,2-Trichloroethane (79-00-5)															
29V. Trichloroethylene (79-01-6)															
30V. Trichlorofluoromethane (75-69-4)															
31V. Vinyl Chloride (75-01-4)															
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)															
2A. 2,4-Dichlorophenol (120-83-2)															
3A. 2,4-Dimethylphenol (105-67-9)															
4A. 4,6-Dinitro-O-Cresol (534-52-1)															
5A. 2,4-Dinitrophenol (51-28-5)															
6A. 2-Nitrophenol (88-75-5)															
7A. 4-Nitrophenol (100-02-7)															
8A. P-Chloro-M Cresol (59-50-7)															
9A. Pentachlorophenol (87-86-5)															
10A. Phenol (108-95-2)															
11A. 2,4,6-Trichlorophenol (88-06-2)															

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS														
1B. Acenaphthene (83-32-9)														
2B. Acenaphtylene (208-96-8)														
3B. Anthracene (120-12-7)														
4B. Benzidine (92-87-5)														
5B. Benzo *(a)* Anthracene (56-55-3)														
6B. Benzo *(a)* Pyrene (50-32-8)														
7B. 3,4-Benzo-fluoranthene (205-99-2)														
8B. Benzo *(ghi)* Perylene (191-24-2)														
9B. Benzo *(k)* Fluoranthene (207-08-9)														
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)														
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)														
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)														
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)														
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)														
15B. Butyl Benzyl Phthalate (85-68-7)														
16B. 2-Chloro-naphthalene (91-58-7)														
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)														
18B. Chrysene (218-01-9)														
19B. Dibenzo *(a,h)* Anthracene (53-70-3)														
20B. 1,2-Dichloro-benzene (95-50-1)														
21B. 1,3-Dichloro-benzene (541-73-1)														

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: TN8640006682

OUTFALL NUMBER: 005

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)															
23B. 3,3'-Dichlorobenzidine (91-94-1)															
24B. Diethyl Phthalate (84-66-2)															
25B. Dimethyl Phthalate (131-11-3)															
26B. Di-N-Butyl Phthalate (84-74-2)															
27B. 2,4-Dinitrotoluene (121-14-2)															
28B. 2,6-Dinitrotoluene (606-20-2)															
29B. Di-N-Octyl Phthalate (117-84-0)															
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)															
31B. Fluoranthene (206-44-0)															
32B. Fluorene (86-73-7)															
33B. Hexachlorobenzene (118-74-1)															
34B. Hexachlorobutadiene (87-68-3)															
35B. Hexachlorocyclopentadiene (77-47-4)															
36B. Hexachloroethane (67-72-1)															
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)															
38B. Isophorone (78-59-1)															
39B. Naphthalene (91-20-3)															
40B. Nitrobenzene (98-95-3)															
41B. N-Nitrosodimethylamine (62-75-9)															
42B. N-Nitrosodi-Propylamine (621-64-7)															

CONTINUE ON PAGE V-8

CONTINUED FROM PAGE V-7

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)															
44B. Phenanthrene (85-01-8)															
45B. Pyrene (129-00-0)															
46B. 1,2,4 - Trichlorobenzene (120-82-1)															
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β -BHC (319-85-7)															
4P. γ- BHC (58-89-9)															
5P. δ- BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
TN8640006682	005

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. LONG TERM AVERAGE VALUE		a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES *(continued)*															
17B. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)															
19P. PCB-1254 (11097-69-1)															
20P. PCB-1221 (11104-28-2)															
21P. PCB-1232 (11141-16-5)															
22P. PCB-1248 (12672-29-6)															
23P. PCB-1260 (11096-82-5)															
24P. PCB-1016 (12674-11-2)															
25P. Toxaphene (8001-35-2)															

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

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V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 007

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	<2						1	mg/L				
b. Chemical Oxygen Demand *(COD)*	39						1	mg/L				
c. Total Organic Carbon *(TOC)*	2.9						1	mg/L				
d. Total Suspended Solids *(TSS)*	50						1	mg/L				
e. Ammonia *(as N)*	0.63						1	mg/L				
f. Flow	VALUE 0.51		VALUE		VALUE		1	MGD		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 25.7		VALUE		VALUE		2	°C		VALUE		
i. pH	MINIMUM 5.9	MAXIMUM 6.5	MINIMUM	MAXIMUM			12	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X	<2						1	mg/L				
b. Chlorine, Total Residual		X	< 0.05						2	mg/L				
c. Color		X	45						1	PC Units				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X	0.24						1	mg/L				
f. Nitrate-Nitrite *(as N)*		X	0.03						1	mg/L				

ITEM V-B CONTINUED FROM PAGE V-1

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)		X	0.1						1	mg/L				
h. Oil and Grease		X	< 5						1	mg/L				
i. Phosphorus (as P), Total (7723-14-0)		X	0.05						1	mg/L				
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (as SO_4) (14808-79-8)	X		490						1	mg/L				
l. Sulfide (as S)	X		< 0.02						1	mg/L				
m. Sulfite (as SO_3) (14265-45-3)	X		0.64						1	mg/L				
n. Surfactants	X		< 0.1						1	mg/L				
o. Aluminum, Total (7429-90-5)	X		1.3						1	mg/L				
p. Barium, Total (7440-39-3)	X		0.043						1	mg/L				
q. Boron, Total (7440-42-8)	X		1.5						1	mg/L				
r. Cobalt, Total (7440-48-4)	X		0.0017						1	mg/L				
s. Iron, Total (7439-89-6)	X		55						1	mg/L				
t. Magnesium, Total (7439-95-4)	X		27						1	mg/L				
u. Molybdenum, Total (7439-98-7)	X		0.04						1	mg/L				
v. Manganese, Total (7439-96-5)	X		2.4						1	mg/L				
w. Tin, Total (7440-31-5)	X		< 0.05						1	mg/L				
x. Titanium, Total (7440-32-6)	X		0.006						1	mg/L				

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
TN8640006682	007

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			0.0037						1	mg/L				
2M. Arsenic, Total (7440-38-2)	X			0.031						1	mg/L				
3M. Beryllium, Total, (7440-41-7)	X			< 0.001						1	mg/L				
4M. Cadmium, Total (7440-43-9)	X			0.00058						1	mg/L				
5M. Chromium, Total (7440-47-3)	X			< 0.001						1	mg/L				
6M. Copper, Total (7440-50-8)	X			< 0.001						1	mg/L				
7M. Lead, Total (7439-92-1)	X			< 0.001						1	mg/L				
8M. Mercury, Total (7439-97-6)	X			< 0.0001						1	mg/L				
9M. Nickel, Total (7440-02-0)	X			0.008						1	mg/L				
10M. Selenium, Total (7782-49-2)	X			< 0.001						1	mg/L				
11M. Silver, Total (7440-22-4)	X			< 0.0001						1	mg/L				
12M. Thallium, Total (7440-28-0)	X			< 0.002						1	mg/L				
13M. Zinc, Total (7440-66-6)	X			0.048						1	mg/L				
14M. Cyanide, Total (57-12-5)	X			< 0.005						1	mg/L				
15M. Phenols, Total	X			< 0.005						1	mg/L				
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM PAGE V-3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			< 0.001						1	mg/L				
2V. Acrylonitrile (107-13-1)	X			< 0.001						1	mg/L				
3V. Benzene (71-43-2)	X			< 0.001						1	mg/L				
4V. Bis *(Chloromethyl)* Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			< 0.001						1	mg/L				
6V. Carbon Tetrachloride (56-23-5)	X			< 0.001						1	mg/L				
7V. Chlorobenzene (108-90-7)	X			< 0.001						1	mg/L				
8V. Chlorodibromomethane (124-48-1)	X			< 0.001						1	mg/L				
9V. Chloroethane (75-00-3)	X			< 0.001						1	mg/L				
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			< 0.001						1	mg/L				
11V. Chloroform (67-66-3)	X			< 0.0005						1	mg/L				
12V. Dichlorobromomethane (75-27-4)	X			< 0.001						1	mg/L				
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.001						1	mg/L				
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.001						1	mg/L				
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.001						1	mg/L				
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.001						1	mg/L				
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.001						1	mg/L				
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.001						1	mg/L				
19V. Ethylbenzene (100-41-4)	X			< 0.001						1	mg/L				
20V. Methyl Bromide (74-83-9)	X			< 0.001						1	mg/L				
21V. Methyl Chloride (74-87-3)	X			< 0.001						1	mg/L				

EPA I.D. NUMBER (copy from Item 1 of Form 1): TN8640006682

OUTFALL NUMBER: 007

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.001						1	mg/L				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			< 0.0005						1	mg/L				
24V. Tetrachloroethylene (127-18-4)	X			< 0.0005						1	mg/L				
25V. Toluene (108-88-3)	X			< 0.001						1	mg/L				
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			< 0.001						1	mg/L				
27V. 1,1,1-Trichloroethane (71-55-6)	X			< 0.001						1	mg/L				
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.0002						1	mg/L				
29V. Trichloroethylene (79-01-6)	X			< 0.001						1	mg/L				
30V. Trichlorofluoromethane (75-69-4)	X			< 0.001						1	mg/L				
31V. Vinyl Chloride (75-01-4)	X			< 0.002						1	mg/L				
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.005						1	mg/L				
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.005						1	mg/L				
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.005						1	mg/L				
4A. 4,6 Dinitro O Cresol (534-52-1)	X			< 0.024						1	mg/L				
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.042						1	mg/L				
6A. 2-Nitrophenol (88-75-5)	X			< 0.005						1	mg/L				
7A. 4-Nitrophenol (100-02-7)	X			< 0.03						1	mg/L				
8A. P-Chloro-M Cresol (59-50-7)	X			< 0.024						1	mg/L				
9A. Pentachlorophenol (87-86-5)	X			< 0.005						1	mg/L				
10A. Phenol (108-95-2)	X			< 0.005						1	mg/L				
11A. 2,4,6-Trichlorophenol (88-06-2)	X			< 0.0027						1	mg/L				

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.001						1	mg/L				
2B. Acenaphtylene (208-96-8)	X			< 0.001						1	mg/L				
3B. Anthracene (120-12-7)	X			< 0.0007						1	mg/L				
4B. Benzidine (92-87-5)	X			< 0.00008						1	mg/L				
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.0003						1	mg/L				
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.0003						1	mg/L				
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			< 0.0003						1	mg/L				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.001						1	mg/L				
9B. Benzo *(k)* Fluoranthene (207-08-9)	X			< 0.0003						1	mg/L				
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)	X			< 0.005						1	mg/L				
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)	X			< 0.001						1	mg/L				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.005						1	mg/L				
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)	X			0.015						1	mg/L				
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			< 0.005						1	mg/L				
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.005						1	mg/L				
16B. 2-Chloro-naphthalene (91-58-7)	X			< 0.005						1	mg/L				
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			< 0.005						1	mg/L				
18B. Chrysene (218-01-9)	X			< 0.001						1	mg/L				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.001						1	mg/L				
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.002						1	mg/L				
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.002						1	mg/L				

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.0044						1	mg/L				
23B. 3,3'-Dichlorobenzidine (91-94-1)	X			< 0.025						1	mg/L				
24B. Diethyl Phthalate (84-66-2)	X			< 0.0019						1	mg/L				
25B. Dimethyl Phthalate (131-11-3)	X			< 0.0016						1	mg/L				
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.0025						1	mg/L				
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.001						1	mg/L				
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.005						1	mg/L				
29B. Di-N-Octyl Phthalate (117-84-0)	X			< 0.01						1	mg/L				
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X												
31B. Fluoranthene (206-44-0)	X			< 0.001						1	mg/L				
32B. Fluorene (86-73-7)	X			< 0.0003						1	mg/L				
33B. Hexachlorobenzene (118-74-1)	X			< 0.001						1	mg/L				
34B. Hexachlorobutadiene (87-68-3)	X			< 0.005						1	mg/L				
35B. Hexachlorocyclopentadiene (77-47-4)	X			<0.03						1	mg/L				
36B. Hexachloroethane (67-72-1)	X			< 0.0005						1	mg/L				
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			< 0.001						1	mg/L				
38B. Isophorone (78-59-1)	X			< 0.005						1	mg/L				
39B. Naphthalene (91-20-3)	X			< 0.001						1	mg/L				
40B. Nitrobenzene (98-95-3)	X			< 0.01						1	mg/L				
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.001						1	mg/L				
42B. N-Nitrosodi-Propylamine (621-64-7)	X			< 0.00008						1	mg/L				

CONTINUE ON PAGE V-8

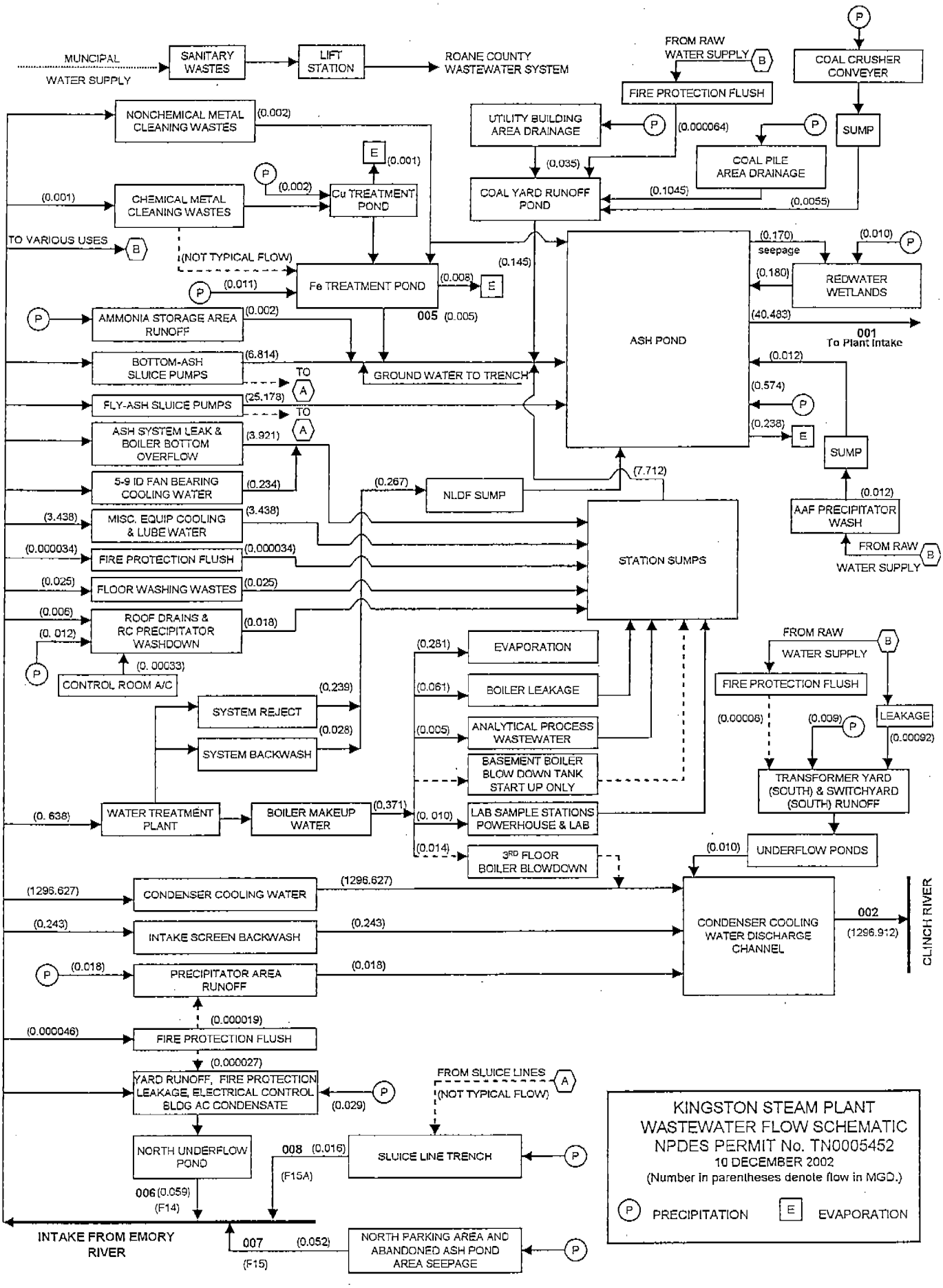
CONTINUED FROM PAGE V-7

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)	X			< 0.005						1	mg/L				
44B. Phenanthrene (85-01-8)	X			< 0.0007						1	mg/L				
45B. Pyrene (129-00-0)	X			< 0.0003						1	mg/L				
46B. 1,2,4 - Trichlorobenzene (120-82-1)	X			< 0.005						1	mg/L				
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X	< 0.00001						1	mg/L				
2P. α-BHC (319-84-6)			X	< 0.00001						1	mg/L				
3P. β -BHC (319-85-7)			X	< 0.00001						1	mg/L				
4P. γ- BHC (58-89-9)			X	< 0.00001						1	mg/L				
5P. δ- BHC (319-86-8)			X	< 0.00001						1	mg/L				
6P. Chlordane (57-74-9)			X	< 0.00001						1	mg/L				
7P. 4,4'-DDT (50-29-3)			X	< 0.00001						1	mg/L				
8P. 4,4'-DDE (72-55-9)			X	< 0.00001						1	mg/L				
9P. 4,4'-DDD (72-54-8)			X	< 0.00001						1	mg/L				
10P. Dieldrin (60-57-1)			X	< 0.00001						1	mg/L				
11P. α-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L				
12P. β-Endosulfan (115-29-7)			X	< 0.00001						1	mg/L				
13P. Endosulfan Sulfate (1031-07-8)			X	< 0.00001						1	mg/L				
14P. Endrin (72-20-8)			X	< 0.00001						1	mg/L				
15P. Endrin Aldehyde (7421-93-4)			X	< 0.00001						1	mg/L				
16P. Heptachlor (76-44-8)			X	< 0.00001						1	mg/L				

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
TN8640006682	007

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. LONG TERM AVERAGE VALUE		a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES (continued)															
17B. Heptachlor Epoxide (1024-57-3)			X	< 0.00001						1	mg/L				
18P. PCB-1242 (53469-21-9)			X	< 0.00005						1	mg/L				
19P. PCB-1254 (11097-69-1)			X	< 0.00005						1	mg/L				
20P. PCB-1221 (11104-28-2)			X	< 0.00005						1	mg/L				
21P. PCB-1232 (11141-16-5)			X	< 0.00005						1	mg/L				
22P. PCB-1248 (12672-29-6)			X	< 0.00005						1	mg/L				
23P. PCB-1260 (11096-82-5)			X	< 0.00005						1	mg/L				
24P. PCB-1016 (12674-11-2)			X	< 0.00005						1	mg/L				
25P. Toxaphene (8001-35-2)			X	< 0.0005						1	mg/L				



Please type or print in the unshaded areas only.

EPA ID Number *(copy from Item 1 of Form 1)* AL7640006675

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

Form **2E** NPDES

EPA Facilities Which Do Not Discharge Process Wastewater

I. Receiving Waters

For this outfall, list the latitude and longitude, and name of the receiving water(s).

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	
006	35	54	00	84	31	00	Plant intake canal (Emory River)

II. Discharge Date *(If a new discharger, the date you expect to begin discharging)*

III. Type of Waste

A. Check the box(es) indicating the general type of wastes discharged. **A/C Cooling Water from Electrical Control Bldg**

[ ] Sanitary Wastes [ ] Restaurant or Cafeteria Wastes [X] Noncontact Cooling Water [ ] Other Nonprocess Wastewater *(identify)*

B. If any cooling water additives are used, list them here. Briefly describe their composition if this information is available.

No additives are used.

IV. Effluent Characteristics

A. Existing Sources - Provide measurements for the parameters listed in the left-hand column below, unless waived by the permitting authority *(see instructions)*.

B. New Discharges - Provide estimates for the parameters listed in the left-hand column below, unless waived by the permitting authority. Instead of the number of measurements taken, provide the source of estimated values *(see instructions)*.

Pollutant or Parameter	(1) Maximum Daily Value *(include units)*		(2) Average Daily Value *(last year)* *(include units)*		(3) Number of Measurements Taken *(last year)*	(4) Source of Estimate *(if new discharger)*
	Mass	Concentration	Mass	Concentration		
Biochemical Oxygen Demand (BOD)		< 2 mg/L			1	
Total Suspended Solids (TSS)		< 1 mg/L			1	
Fecal Coliform *(if believed present or if sanitary waste is discharged)*		N/A				
Total Residual Chlorine *(if chlorine is used)*		< 0.05 mg/L Cl			2	
Oil and Grease		< 5 mg/L			1	
*Chemical oxygen demand (COD)		34 mg/L			1	
*Total organic carbon (TOC)		3.7 mg/L			1	
Ammonia *(as N)*		0.02 mg/L			1	
Discharge Flow	Value 0.52 MGD				1	
pH *(give range)*	Value 7.45 - 7.92				13	
Temperature *(Winter)*		°C		°C		
Temperature *(Summer)*	33.7	°C		°C	2	

*If noncontact cooling water is discharged

V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? If yes, briefly describe the frequency of flow and duration. [ ] Yes [X] No

VI. Treatment System *(Describe briefly any treatment system(s) used or to be used)*

NONE

VII. Other Information *(Optional)*

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitation. Attach additional sheets, if necessary.

VIII. 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 person or 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.

A. Name & Official Title	B. Phone No. *(area code & no.)*
Masoud Bajestani, Senior Vice President, Fossil Operations	423-751-3013
C. Signature	**D. Date Signed**
M. Bajestani	12/17/02

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

NPDES PERMIT APPLICATION ADDRESSES

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

NPDES PERMIT NUMBER: TN0005452

CORPORATE HEADQUARTERS (where permit should be sent) :

CONTACT PERSON: Janet K. Watts, Manager, Environmental Affairs TELEPHONE: (423) 751-7292
Name Title

COMPANY NAME: Tennessee Valley Authority – Kingston Fossil Plant

STREET AND/OR P.O. BOX: 1101 Market Street, LP 5D

CITY: Chattanooga STATE TN ZIP CODE: 37402

PERMIT BILLING ADDRESS (where invoices should be sent):

CONTACT PERSON: Janet K. Watts, Mgr. Environmental Affairs TELEPHONE: (423) 751-7292
Name Title

FACILITY NAME : Tennessee Valley Authority – Kingston Fossil Plant

STREET AND/OR P.O. BOX: 1101 Market Street, LP 5D

CITY: Chattanooga STATE: TN ZIP CODE: 37402

FACILITY LOCATION (actual location of permit site):

CONTACT PERSON: Linda Campbell, Program Administrator (Environmental)
Name Title

FACILITY NAME: Tennessee Valley Authority – Kingston Fossil Plant

STREET AND/OR P.O. BOX: 714 Swan Pond Road

CITY: Kingston STATE: TN ZIP CODE: 37748

COUNTY: Roane County TELEPHONE: (865) 717-2157

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

CONTACT PERSON: Linda Campbell, Prog. Adm. (Environmental) TELEPHONE: (865) 717-2157
Name Title

FACILITY NAME: Tennessee Valley Authority – Kingston Fossil Plant

STREET AND/OR P.O. BOX: 714 Swan Pond Road

CITY: Kingston STATE: TN ZIP CODE: 37748

CN-1090 RDAs 2352 AND 2366