



Tennessee Valley Authority, 714 Swan Pond Road, Harriman, Tennessee 37748

July 8, 2023

Joshua Frazier
TDEC – KEFO, Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921
DWRWater.Compliance@tn.gov; joshua.fraizer@tn.gov

Dear Mr. Frazier:

TENNESSEE VALLEY AUTHORITY KINGSTON FOSSIL PLANT MULTI-SECTOR GENERAL PERMIT
FOR INDUSTRIAL ACTIVITY TNR051787 – ANNUAL STORMWATER REPORT - 2023

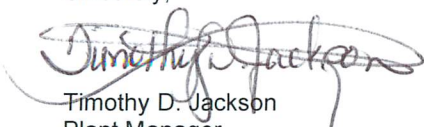
Enclosed is the analytical and Annual Storm Water Monitoring Report for Kingston and a table summarizing the samples collected in 2023. F20 result for TSS is above the cut-off concentration and corrective actions have been implemented. The stormwater drainage pipe has been vacuumed to remove sediment buildup.

Outfall Number	Total Iron (mg/l)	TSS (mg/l)
Cut-off Concentration	5.0 mg/L	150 mg/L
F6A	<0.0500	NA
F7	0.0538	NA
F13B	0.331	NA
F15B	0.305	NA
F16	0.170	NA
F17A	0.140	NA
F17C	0.817	NA
F18	0.117	NA
F19A	0.828	35.6
F20	4.28	238
F21	0.258	26.5
F22	0.550	10.7
F23	0.590	33.5
F24	0.701	77.8

If you have any questions about this report, please contact Adele Dennison at (865) 717-2157.

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 gathered and evaluated 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Sincerely,


Timothy D. Jackson
Plant Manager
TVA - Kingston Fossil Plant
TDJ:amd



Tennessee Valley Authority, 714 Swan Pond Road, Harriman, Tennessee 37748

July 8, 2023

Joshua Frazier
TDEC – KEFO, Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921
DWRWater.Compliance@tn.gov
joshua.fraizer@tn.gov

Dear Mr. Frazier:

TENNESSEE VALLEY AUTHORITY (TVA) - KINGSTON FOSSIL PLANT (KIF) - TENNESSEE MULTI-SECTOR PERMIT NUMBER TNR051787 - EFFLUENT BENCHMARK EXCEEDANCE & CORRECTIVE ACTIONS

As required by the permit, notification is given that annual analysis at KIF has exceeded storm water monitoring results with effluent concentrations above the monitoring benchmark of 150.0 mg/L Total Suspended Solids. We are submitting the following monitoring information for the annual sample

Storm Water Outfall# F20 Outfall Description:

This storm water outfall carries runoff from the Peninsula Landfill material haul roads.

Storm water Monitoring Data Summary

Annual 2023 = 238 mg/L Total Suspended Solids

Benchmark

150 mg/L Total Suspended Solids

Likely Source(s) of Pollution:

Gypsum fines built up in the drainage piping leading to F20

Summary of Corrective Actions:

There is gypsum built up in the drainage pipe leading to a rock check dam prior to the sample point. The drainage pipes have been vacuumed out.

If you have any questions regarding storm water monitoring, please contact Adele Dennison at (865) 717-2157.

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 gathered and evaluated 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy D. Jackson", with a large, sweeping flourish at the end.

Timothy D. Jackson
Plant Manager
TVA - Kingston Fossil Plant
TDJ:amd



Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

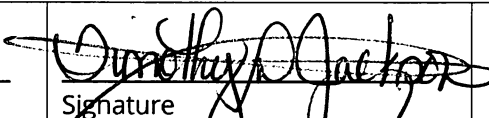
Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: F17C
List all TMSP sectors which apply to discharge from this outfall: O	Sample Date: 7/20/2023
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)	Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75		Magnesium, Total	0.0636	
Ammonia	4.0		Mercury, Total	0.0024	
Arsenic, Total	0.16854		Nickel, Total	0.875	
BOD, 5-Day	30		Nitrate + Nitrite Nitrogen	0.68	
Cadmium, Total	0.0159		Oil and Grease	15	
COD	120		pH	5.0-9.0	
Copper, Total	0.018		Phosphorus, Total (as P)	2.0	
Cyanide, Total	0.064		Selenium, Total	0.2385	
Fluoride	1.8		Silver, Total	0.032	
Iron, Total	5.0	0.817	Total Suspended Solids	150	
Lead, Total	0.15		Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

I certify under penalty of law that this document and all of its attachments were prepared under my direction or my supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Timothy D. Jackson	Plant Manager		8/8/2023
Printed Name	Official Title	Signature	Date



Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

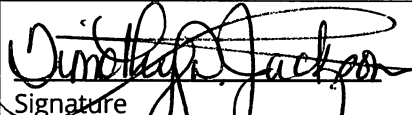
ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: F19A
List all TMSP sectors which apply to discharge from this outfall: L, O	Sample Date: 7/20/2023
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

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Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)	Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75		Magnesium, Total	0.0636	
Ammonia	4.0		Mercury, Total	0.0024	
Arsenic, Total	0.16854		Nickel, Total	0.875	
BOD, 5-Day	30		Nitrate + Nitrite Nitrogen	0.68	
Cadmium, Total	0.0159		Oil and Grease	15	
COD	120		pH	5.0-9.0	
Copper, Total	0.018		Phosphorus, Total (as P)	2.0	
Cyanide, Total	0.064		Selenium, Total	0.2385	
Fluoride	1.8		Silver, Total	0.032	
Iron, Total	5.0	0.828	Total Suspended Solids	150	35.6
Lead, Total	0.15		Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

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Timothy D. Jackson	Plant Manager		8/8/2023
Printed Name	Official Title		Signature



Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

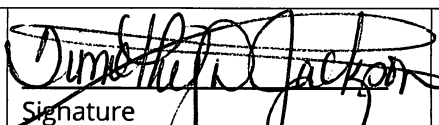
ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: TVA-Kingston Fossil Plant	TMSP Number: TNR051787
Contact Person: Adele Dennison	Phone Number: 865-717-2157
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: F20
List all TMSP sectors which apply to discharge from this outfall: L, O	Sample Date: 7/20/2023
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

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Ammonia	4.0		Mercury, Total	0.0024	
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BOD, 5-Day	30		Nitrate + Nitrite Nitrogen	0.68	
Cadmium, Total	0.0159		Oil and Grease	15	
COD	120		pH	5.0-9.0	
Copper, Total	0.018		Phosphorus, Total (as P)	2.0	
Cyanide, Total	0.064		Selenium, Total	0.2385	
Fluoride	1.8		Silver, Total	0.032	
Iron, Total	5.0	4.28	Total Suspended Solids	150	238
Lead, Total	0.15		Zinc, Total	0.395	

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Timothy D. Jackson	Plant Manager		8/8/2023
Printed Name	Official Title	Signature	Date

ANALYTICAL REPORT

PREPARED FOR

Attn: Adele Dennison
Tennessee Valley Authority
714 Swan Pond Road
Harriman, Tennessee 37748

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JOB DESCRIPTION

2023 Stormwater

JOB NUMBER

180-159747-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

Eurofins Pittsburgh

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



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7/31/2023 3:13:03 PM

Authorized for release by
Cathy Gartner, Project Manager II
Cathy.Gartner@et.eurofinsus.com
(615)301-5041

Case Narrative

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Job ID: 180-159747-1

Laboratory: Eurofins Pittsburgh

Narrative

Job Narrative
180-159747-1

Receipt

The samples were received on 7/22/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-159747-1	F20	Water	07/20/23 09:30	07/22/23 09:30
180-159747-2	F17C	Water	07/20/23 09:37	07/22/23 09:30
180-159747-3	F19A	Water	07/20/23 09:54	07/22/23 09:30

Client Sample Results

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Client Sample ID: F19A

Lab Sample ID: 180-159747-3

Date Collected: 07/20/23 09:54

Matrix: Water

Date Received: 07/22/23 09:30

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Iron	0.828		0.0500		mg/L		07/31/23 15:28	1	RJR

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Total Suspended Solids	35.6		0.877		mg/L		07/26/23 07:56	1	CMC

Action Limit Summary

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Client Sample ID: F20

Lab Sample ID: 180-159747-1

Action Limits

Results have been compared against the following action or regulatory limits. Any results or detection limits which exceed the limit are highlighted in bold.

Analyte	Result	Qualifier	Unit	TVA01A		RL	Method	Prep Type
				Limit				
Total Suspended Solids	238		mg/L	100		2.94	SM 2540D	Total/NA

Client Sample ID: F19A

Lab Sample ID: 180-159747-3

Action Limits

Results have been compared against the following action or regulatory limits. Any results or detection limits which exceed the limit are highlighted in bold.

Analyte	Result	Qualifier	Unit	TVA01A		RL	Method	Prep Type
				Limit				
Total Suspended Solids	35.6		mg/L	100		0.877	SM 2540D	Total/NA

Client Sample Results

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Client Sample ID: F20

Lab Sample ID: 180-159747-1

Date Collected: 07/20/23 09:30

Matrix: Water

Date Received: 07/22/23 09:30

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Iron	4.28		0.0500		mg/L		07/31/23 15:11	1	RJR

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Total Suspended Solids	238		2.94		mg/L		07/26/23 07:56	1	CMC

Client Sample Results

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Client Sample ID: F17C

Lab Sample ID: 180-159747-2

Date Collected: 07/20/23 09:37

Matrix: Water

Date Received: 07/22/23 09:30

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Iron	0.817		0.0500		mg/L		07/31/23 15:25	1	RJR

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-24
Illinois	NELAP	004375	06-30-24
Kansas	NELAP	E-10350	01-31-24
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-23
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-24
Minnesota	NELAP	042-999-482	12-31-23
New Hampshire	NELAP	2030	04-04-24
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-24
North Carolina (WW/SW)	State	434	12-31-23
North Dakota	State	R-227	04-30-24
Oregon	NELAP	PA-2151	02-06-24
Pennsylvania	NELAP	02-00416	04-30-24
Rhode Island	State	LAO00362	12-31-22 *
South Carolina	State	89014	04-30-23 *
Texas	NELAP	T104704528	03-31-24
US Fish & Wildlife	US Federal Programs	058448	03-31-24
USDA	US Federal Programs	P330-16-00211	06-21-24
Utah	NELAP	PA001462019-8	05-31-24
Virginia	NELAP	10043	09-14-23
West Virginia DEP	State	142	01-31-24
Wisconsin	State	998027800	08-31-23

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pittsburgh

Accreditation/Certification and Definitions Summary

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
MRL	Method Reporting Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
SDL	Sample Detection Limit
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pittsburgh

Method Summary

Client: Tennessee Valley Authority
Project/Site: 2023 Stormwater

Job ID: 180-159747-1

Method	Method Description	Protocol	Laboratory
EPA 200.8 Rev 5	Metals (ICP/MS)	EPA	EET PIT
SM 2540D	Solids, Total Suspended (TSS)	SM	EET PIT
200.8	Preparation, Total Recoverable Metals	EPA	EET PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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