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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAY 24 1985
4PM-EA/AGL

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Joe La Grone, Manager
Oak Ridge Operations
United States Department of Energy
Oak Ridge Operations
Post Office Box "E"
Oak Ridge, Tennessee 37830

1 Copy of NPDES Permit

Re: NPDES Permit No. TN0002968
Oak Ridge Operations
Oak Ridge Y-12 Plant

Dear Sir:

Enclosed is the National Pollutant Discharge Elimination System (NPDES) permit for the above referenced facility. This action constitutes the Environmental Protection Agency's final permit decision in accordance with 40 C.F.R. §124.15(a).

The permit will become effective as specified in the permit, provided that no request for a hearing is granted by the Agency under 40 C.F.R. §124.75 or §124.114. In the event that such a request is granted:

- For discharge(s) previously authorized by an NPDES permit, the contested provision of this permit will be stayed and will not become effective; but the conditions applicable to the discharge(s) from the previous NPDES permit will continue in effect during the administrative review process. However, the uncontested provisions of this permit will be effective and enforceable as provided for in 40 C.F.R. §124.60.

- For discharge(s) not previously authorized by an NPDES permit, the Agency's granting of a hearing (requested by you or any other person) will result in a withdrawal of your authorization to commence such discharge(s) until the administrative review process is completed. In other words, there will not be an NPDES permit authorizing the discharge(s) and if such a discharge(s) occurs, the discharge(s) will constitute a violation of Section 301 of the Clean Water Act, (33 U.S.C. §1311) for which there is civil and/or criminal liability.

This document has been reviewed by the Y-12 Plant Classification Office and has been determined to be
UNCLASSIFIED
This review does not constitute clearance for Public Release
SW 11/18/92

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If you wish to request a hearing under 40 C.F.R. §124.75 or §124.114, you must submit a request (an original and two copies) to the Regional Hearing Clerk within thirty (30) days from the receipt of this letter. The request will be timely if mailed by certified mail within the thirty (30) day time period. For the request to be valid, it must conform to the requirements of 40 C.F.R. §124.74. A summary of the requirements of 40 C.F.R. §124.74 is attached.

Information on procedures pertaining to the filing of a hearing request or other legal matters may be obtained by contacting Mr. Thomas M. DeRose, Assistant Regional Counsel, at 404/881-3506.

Sincerely,

Bruce R. Barrett, Director
Water Management Division

Enclosures (2): Hearing Request Requirements
Final NPDES Permit

cc: Kenneth W. Bunting, Director
Division of Water Management
Tennessee Department of Health and Environment

REQUIREMENTS FOR EVIDENTIARY/PANEL
HEARING REQUEST

Evidentiary Hearing (40 CFR 124.74)

1. Requests must be made within 30 days following date of issuance of final permit

2. Requests must contain:

(a) the name, mailing address, and telephone number of the person mailing the request,
(b) a clear and concise factual statement of the nature and scope of the interest of the requester,
(c) the names and addresses of all persons whom the requester represents,
(d) a statement by the requester that upon motion of any party, or upon request of the Presiding Officer and without cost or expense to any other party, the requester shall make available to appear and testify the following:

(i) the requester,
(ii) all persons represented by the requester, and
(iii) all officers, directors, employees, consultants and agents of the requester and the persons represented by the requester,

(e) a statement of each legal or factual question alleged to be at issue and their relevance to the permit decision together with a designation of the specific factual areas to be adjudicated,
(f) an estimate of the hearing time necessary for the adjudication,
(g) specific references to the contested permit terms and conditions as well as suggested revised or alternate permit terms and conditions, (not excluding permit denial) which, in the judgement of the requester, would be required to implement the purposes and policies of the Clean Water Act,
(h) in the case of challenges to the application of control or treatment technologies identified in the statement of basis or the fact sheet, identification of the basis for the objection, and the alternative technologies which the requester believes are necessary to meet the requirements of the Clean Water Act and
*(i) specific identification of each of the discharger's obligations which should be stayed if the request is granted. If the request contests more than one permit term or condition then each obligation which is proposed to be stayed must be referenced to the particular contested term warranting the stay.

Panel Hearing (40 CFR 124.111)

The form and content of a request for a panel hearing is the same as for an evidentiary hearing, except that the permittee may specifically include a request that the hearing be conducted under the non-adversary procedures of subpart I of the regulations.

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*Note: for new source & new dischargers, if the request is granted, the applicant will be considered without a permit pending final agency action.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

Permit No.: TN0002968

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.; the "Act"),

United States Department of Energy
Oak Ridge Operations

is authorized to discharge from a facility located at:

Oak Ridge Y-12 Plant
Oak Ridge, Anderson County, Tennessee

to receiving waters named

East Fork Poplar Creek, Bear Creek,
and the Clinch River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof. The Permit consists of this cover sheet, Part I 44 page(s), Part II 15 page(s), Part III 12 page(s).

This permit shall become effective on May 24, 1985.

This permit and the authorization to discharge shall expire at midnight May 23, 1990.

Nothing in this permit shall be deemed to supercede the requirements of the Atomic Energy Act of 1954, as amended, for the protection of restricted information.

MAY 24 1985
Date Signed

Bruce R. Barrett
Director
Water Management Division

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 301 - Kerr Hollow Quarry in Bethel Valley.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Heavy Metals	----	----	----	----	Note (A&C)	Grab	Effluent
Flow-m^3/Day (MGD)	----	----	----	----	Note (A)	Instantaneous	Effluent
Lithium	----	----	----	5.0	Note (A)	Grab	Effluent
Total Suspended Solids	----	----	30.0	50.0	Note (A)	Grab	Effluent
Zirconium	----	----	----	3.0	Note (A)	Grab	Effluent
Potassium	----	----	----	----	Note (A)	Grab	Effluent
Sodium	----	----	----	----	Note (A)	Grab	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Note (A)	Grab	Effluent

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored after each disposal operation by a grab sample taken at the effluent after each disposal operation.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point inside the quarry adjacent to the discharge point but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Note (A): Monitoring for this parameter shall be conducted following each disposal operation involving this material at a time which provides a sample representative of the discharge from this point.

Note (B): The permittee shall maintain and make available for inspections, records of the date of each disposal operation and the type and amount of each material disposed of. A summary of the number of disposal operations and total quantities of each material shall be included with the monitoring report for their discharge.

Note (C): Monitoring for heavy metals following disposal operations shall include total arsenic, cadmium, chromium, copper, iron, nickel, selenium, zinc, lead, and mercury. If significant quantities of heavy metals are recorded, the permit will be modified to reflect appropriate effluent limitations. The sampling procedure and frequency of monitoring shall be consistent with that of the other parameters at this location.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 302 - Rogers Quarry in Bethel Valley.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Weekly	Instantaneous	Effluent
Total Suspended Solids	----	----	30.0	50.0	Weekly(A)	Grab	Effluent
Chemical Oxygen Demand	----	----	----	----	Weekly	Grab	Effluent
Sulfate (As SO_4)	----	----	----	----	Weekly	Grab	Effluent
Turbidity (NTU)	----	----	----	----	Weekly	Grab	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Weekly(B)	Grab	Effluent
Oil and Grease	----	----	10.0	15.0	Weekly	Grab	Effluent
Heavy Metals	----	See Note (C)		----	Weekly	Grab	Effluent

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per week by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The settleable solids shall not exceed 0.5 ml/l during normal operations and shall be monitored once per week by a grab sample taken at the effluent.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Note (A): Suspended solids limitations shown above shall be applicable only during periods of normal operation and shall not apply during periods of increased surface runoff resulting from precipitation. Monitoring shall be conducted during such periods but shall not be included in determination of daily average or daily maximum values.

Note (B): The temperature shall be controlled such that the stream temperature standards delineated in the General Water Quality Criteria for the Definition and Control of Pollution in the Waters of Tennessee, as amended, are not violated as a result of this discharge.

Note (C): Monitoring for heavy metals during active periods of discharge shall include total arsenic, cadmium, chromium, copper, iron, nickel, selenium, zinc, lead, and mercury. If significant quantities of heavy metals are recorded, the permit will be modified to reflect appropriate effluent limitations.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - INTERIM

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until the 03/30/89 "Compliance Level Attained" date contained in the Compliance Schedule, Part I, Sections 2(A) to 2(J) have been complied with for outfall(s) Serial Number(s) 303 - New Hope Pond.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Ammonia (as N)	----	----	----	1.60	Weekly	Composite	Effluent
Chromium, Total	----	----	0.05	0.08	Weekly	Composite	Effluent
Fluoride	----	----	1.50	2.00	Weekly	Composite	Effluent
Lithium, Total	----	----	----	5.0	Weekly	Composite	Effluent
Surfactants (as MBAS)	----	----	5.0	8.0	Weekly	Composite	Effluent
Dissolved Solids	----	----	----	2,000	Weekly	Composite	Effluent
Oil and Grease	----	----	10.0	15.0	Weekly	Grab	Effluent
Total Suspended Solids	----	----	----	20.0	Weekly	Composite	Effluent
Zinc, Total	----	----	0.20	0.30	Weekly	Composite	Effluent
Nitrogen, Total (as N)	----	----	----	20.0	Weekly	Composite	Effluent
Cadmium, Total	----	----	0.0025	0.0035	Weekly	Composite	Effluent
Lead, Total	----	----	0.012	0.17	Weekly	Composite	Effluent
Copper, Total	----	----	0.015	0.022	Weekly	Composite	Effluent
Mercury, Total	----	----	0.0035	0.008	Weekly	Composite	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Weekly	Grab	Effluent

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - INTERIM (Continued)

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Biochemical Oxygen Demand	----	----	----	----	Weekly	Composite	Effluent
Chemical Oxygen Demand	----	----	----	----	Weekly	Composite	Effluent

2. The Settleable Solids concentrations shall not exceed 0.5 ml/l during normal operations and shall be monitored once per month by a grab sample taken at the effluent.
3. The Dissolved Oxygen concentration shall not be less than 5.0 mg/l and shall be monitored daily by a grab sample taken at the effluent.
4. The pH shall not be less than 6.5 standard units nor greater than 10.0 standard units and shall be monitored once per week by a grab sample taken at the effluent.
5. There shall be no discharge of floating solids or visible foam in other than trace amounts.
6. The effluent shall not cause a visible sheen on the receiving waters.
7. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
8. The Total Suspended Solids concentration shall not exceed the limitation shown during normal operations. If the discharge volume exceeds 8.0 mgd as a result of precipitation, the total suspended solids concentration may not exceed 100 mg/l.
9. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS INTERIM (continued)

10. The nickel and beryllium effluent characteristics shall be monitored once per week by a composite sample taken at the effluent.

11. A biological monitoring plan shall be established for the East Fork Poplar Creek above the existing sampling location. The biological monitoring plan shall conform to Part III, Special Condition Number 7 - Biological Monitoring Plan and Abatement Program.

12. The total chlorine residual shall be monitored once per week by a grab sample taken at the inlet to New Hope Pond.

13. The perchloroethylene shall be monitored once per week by a grab sample taken at the effluent.

14. The conditions, effluent limitations, and monitoring requirements of this outfall shall also apply to the alternate New Hope Pond Discharge Point.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by March 30, 1989, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 303 - New Hope Pond.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point

There shall be no unpermitted process wastewater discharges to the headwaters of the East Fork Poplar Creek which may have an adverse effect on human health or to the environment.

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.5 standard units nor greater than 10.0 standard units and shall be monitored once per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
8. Appropriate indicator parameters will be determined after all untreated process wastewaters have been eliminated from the Upper East Fork Poplar Creek.
9. The total chlorine residual shall be monitored once per week by a grab sample taken at the inlet to New Hope Pond.
10. The conditions, effluent limitations, and monitoring requirements of this outfall shall also apply to the alternate New Hope Pond Discharge Point.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 304 - Bear Creek.

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Oil and Grease	----	----	10.0 mg/l	15.0 mg/l	Weekly	Grab	Effluent

2. The biochemical oxygen demand (5-day), chemical oxygen demand, dissolved solids, nitrate, and suspended solids shall be monitored once per week by a composite sample taken at the effluent.
3. The conductivity, dissolved oxygen, and turbidity shall be monitored once per week by a grab sample taken at the effluent.
4. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Instream sampling station on Bear Creek at Hwy. 95.
5. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per week by a grab sample taken at the effluent.
6. There shall be no discharge of floating solids or visible foam in other than trace amounts.
7. The effluent shall not cause a visible sheen on the receiving waters.
8. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 305 - Leaking Burial Grounds and Wet Weather Springs (Oil Pond Number 1).

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Instantaneous	Effluent
Oil and Grease	----	----	10.0	15.0	Monthly	Grab	Effluent
Total Suspended Solids	----	----	30.0	50.0	Monthly	Grab	Effluent
Heavy Metals	----	----	See Note (A)	----	Monthly	Grab	Effluent

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per month by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
7. There shall be no adverse effect on the classified uses of the receiving stream from heavy metals or other constituents of the discharge, as determined by the EPA and TDHE evaluation of Bear Creek watershed area data.

Note (A): Monitoring for heavy metals shall include total beryllium, cadmium, lead, mercury, and silver. If significant quantities of heavy metals are recorded, the permit will be modified to reflect appropriate effluent limitations.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for outfall(s) Serial Number(s) 306 - Seepage From Burial Pit and Surface Water Runoff (Oil Pond Number 2).

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Instantaneous	Effluent
Oil and Grease	----	----	10.0	15.0	Monthly	Grab	Effluent
Total Suspended Solids	----	----	30.0	50.0	Monthly	Grab	Effluent
Heavy Metals	----	----	See Note (A)	----	Monthly	Grab	Effluent

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per month by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
7. There shall be no adverse effect on the classified uses of the receiving stream from heavy metals or other constituents of the discharge, as determined by the EPA and TDHE evaluation of Bear Creek Watershed area data.

Note (A): Monitoring for heavy metals shall include total cadmium, nickel, lead, mercury, and silver. If significant quantities of heavy metals are recorded, the permit will be modified to reflect appropriate effluent limitations.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for the Category I Outfalls - Precipitation Runoff and Small Amounts of Groundwater.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Yearly	Instantaneous	Effluent

This permit imposes no limitations with the exception of pH on the discharge of groundwater seepage, rainwater, or natural precipitation uncontaminated by any industrial or commercial activity and not discharge through any oil/water separator or other treatment equipment or facility. This condition applies to the Category I Outfalls listed on Page I-15. Once per year each of the Category I Outfalls shall be sampled to verify minimal releases of pollutants to the environment. This permit imposes a Best Management Plan (BMP) which shall conform to Special Condition 1, Part III, Page III-2 of this permit.

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per year by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Figure 1: Description of Category I Outfalls

Outfall	Discharge Description	Outfall	Discharge Description
1	Surface Drainage	177	Culvert
3	Surface Drainage	178	Precipitation Runoff
6	Surface Drainage	179	Precipitation Runoff
7	Surface Drainage	180	Hillside Runoff
9	Surface Drainage	182	Hillside Runoff
11	No Flow	183	No Flow
12	Precipitation Runoff	184	Precipitation Runoff
15	Precipitation Runoff	186	Precipitation Runoff
17	Spring Fed	193	Area Drains
18	Precipitation Runoff	194	Precipitation Runoff
19	Precipitation Runoff	195	Precipitation Runoff
31	No Flow	196	Precipitation Runoff
32	Precipitation Runoff	197	Precipitation Runoff
41	No Flow	198	Precipitation Runoff
44	Precipitation Runoff	199	No Access
45	Area Drain	200	No Access
57	Precipitation Runoff	202	Precipitation Runoff
62	Precipitation Runoff	205	Runoff
86	Precipitation Runoff	206	Precipitation Runoff
101	No Flow	207	Precipitation Runoff
102	No Flow	208	No Access
108	No Flow	209	No Sample
127	No Flow	215	No Access
134	Spring Fed	221	Precipitation Runoff
136	No Flow	223	Precipitation Runoff
138	Precipitation Runoff	224	Precipitation Runoff
140	Surface Drain	228	Precipitation Runoff
145	Precipitation Runoff	229	No Access
146	Precipitation Runoff	230	Precipitation Runoff
149	Precipitation Runoff	231	No Sample
151	Precipitation Runoff	232	No Sample
152	Precipitation Runoff	233	No Sample
153	Precipitation Runoff	234	Area Drainage
155	Hillside Runoff	235	Precipitation Runoff
156	No Flow	236	Precipitation Runoff
159	No Flow	237	Precipitation Runoff
161	Precipitation Runoff	247	Culvert
164	No Sample	248	No Access
170	Culvert		

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for the Category II Outfalls - Cooling Water, Condensate, Precipitation Runoff, and Building, Roof, and Foundation Drains.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Quarterly	Instantaneous	Effluent
Temperature, °F(°C)	----	----	----	----	Quarterly(A)	Grab	Effluent

This permit imposes a Best Management Plan (BMP) on the discharges from roof drains, cooling water discharges, condensate, and other effluents uncontaminated by any industrial or commercial activity and not discharge through any oil/water separator or other treatment equipment or facility. The permittee shall develop and implement the BMP which prevents, or minimizes the potential for, the release of pollutants to the environment. The BMP shall be written for the Category II Outfalls listed on Page I-17. The BMP shall conform to Special Condition 1, Part III, Page III-2 of this permit.

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per quarter by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Note (A): The temperature shall be controlled such that the stream temperature standards delineated in the General Water Quality Criteria for the Definition and Control of Pollution in the Waters of Tennessee, as amended, are not violated as a result of this discharge.

(comtinued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Figure II: Description of Category II Outfalls

Outfall	Discharge Description	Outfall	Discharge Description
13	Area Drainage	115	No Flow
16	Rinse Water	117	Precipitation Runoff
20	Rinse Water	118	Abandoned
23	Steam Condensate	119	Abandoned
24	No Flow	120	Abandoned
25	Steam Condensate	123	Abandoned
26	Steam Condensate	124	Area Drain
27	No Flow	131	Area Drain
28	No Flow	133	Abandoned
29	Steam Condensate	137	Drain
30	No Sample	144	Area Drain
35	Precipitation Runoff	171	Area Drain
40	No Flow	172	Area Drain
43	Area Drain	173	Area Drain
46	Precipitation Runoff	174	Area Drain
53	No Flow	175	Area Drain
54	Runoff from Pumphouse	185	Precipitation Runoof
58	Runoff	188	Abandoned
59	Precipitation Runoff	201	Area Drain
60	Once-through Cooling	203	Area Drain
66	No Flow	204	Area Drain
68	Area Drainage	210	Cooling Tower Blowdown
69	No Sample	212	Abandoned
73	Area Drainage	213	Pumphouse Drain
74	Area Drainage	214	Not Found
75	Area Drainage	216	Abandoned
76	Precipitation Runoff	217	Abandoned
77	Abandoned	218	Abandoned
78	Abandoned	219	Abandoned
79	Abandoned	220	Abandoned
80	Abandoned	226	No Sample
81	Rain Spill	238	No Access
84	No Flow	239	No Access
87	Cooling Tower Drainage	240	Roof Drain
92	Abandoned	241	Roof Drain
93	Abandoned	243	Area Drain
94	Abandoned	244	Area Drain
95	Abandoned	245	Area Drain
96	Precipitation Runoff	246	Area Drain
98	Precipitation Runoff		
100	No Flow		
111	Precipitation Runoff		
112	Precipitation Runoff		

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for the Category III Outfalls - Process Wastewaters.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Quarterly	Instantaneous	Effluent

This permit imposes the following criteria to the Category III Outfalls: There shall be no discharge of unpermitted process wastewaters to the headwaters of the East Fork Poplar Creek which may have an adverse effect on human health or to the environment (See Special Condition 8 - Category III Outfalls - Process Wastewaters).

Refer to the attached Federal Facility Compliance Agreement for a listing of the Category III Outfalls and the proposed method for eliminating process wastewaters from these outfalls.

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per quarter by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for the Category IV - Discharges - Untreated Process Waste Streams.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Yearly	Instantaneous	Effluent

The permittee shall reduce to a minimum pollutants contained in the below described discharges by the application of best management practices in accordance with 40 C.F.R. 122.15(g). Best management practices include but are not limited to the operation and maintenance of all facilities in accordance with good standard practices and best engineering judgment. This permit imposes a Toxicity Control and Monitoring Program (TCMP) which shall conform to Special Condition 2, Part III, Page III-3 of this permit.

a. Discharge of rinse waters containing traces of dye penetrant and penetrant emulsifier - Building 9204-4 and 9201-5.
b. Steam condensate with traces of deuterium and traces of lithium compound - Building 9204-2.
c. Still overhead, steam condensate and cooling water from Building 9818.
d. Photographic processing wastewaters from Buildings 9201-5N, 9204-2E, 9204-4, 9980/9981, 9201-5, and 9201-3.
e. Sanitary Landfill #2 - Leachate Pond.
f. Plasma torch cutting slag basin cooling wastewater from metal cutting operations - Building 9201-1.
g. Electro-Chemical Machining Operations - Sink Rinses - Building 9201-4.
h. 9202 Catch Basin - Sink Rinses - Building 9202.
i. Building 9737 circuit board manufacturing rinse waters.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per week by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving wates.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for Serial Number Discharge 623 - Y-12 Steam Plant - Fly Ash Sluice Water.

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Weekly	Instantaneous	Effluent

2. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per week by a grab sample taken at the effluent.
3. The effluent shall not cause a visible sheen on the receiving waters.
4. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
5. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 501 - Y-12 Central Pollution Control Facility (CPCF-I) and shall remain in effect until permit expiration, however, at the end of one year the final effluent limitations shall be reviewed and may be revised to protect the stream use classification of the receiving stream (See Note (A)).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Oil and Grease	7.1(16.0)	14.2(31.2)	26.0	52.0	Daily	Grab	Effluent
Cyanide, Total	0.2(0.40)	0.33(0.72)	0.65	1.20	Daily	Grab	Effluent
Chromium, Total	0.5(1.0)	0.75(1.70)	1.71	2.77	Daily	Composite	Effluent
Copper, Total	0.6(1.2)	0.9(2.0)	2.07	3.38	Daily	Composite	Effluent
Lead, Total	0.12(0.26)	0.19(0.4)	0.43	0.69	Daily	Composite	Effluent
Nickel, Total	0.65(1.4)	1.1(2.4)	2.38	3.98	Daily	Composite	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Daily	Grab	Effluent
Cadmium, Total	0.07(0.16)	0.19(0.4)	0.26	0.69	Daily	Composite	Effluent
Zinc, Total	0.4(0.9)	0.7(1.6)	1.48	2.61	Daily	Composite	Effluent
Total Toxic Organics	----	0.6(1.3)	----	2.13	*	Composite	Effluent
Total Suspended Solids	8.5(18.6)	16.4(36.0)	31.0	60.0	Daily	Composite	Effluent
Silver, Total	0.07(0.14)	0.12(0.26)	0.24	0.43	Daily	Composite	Effluent

*One representative sample per thirty thousand gallons of discharge.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The color, sodium, nitrate, sulfate, fluoride, aluminum, iron, mercury, surfactants, beryllium, phosphorous, and chloride parameters shall be monitored once per day by a composite sample taken at the effluent. Phenols shall be monitored once per day by a grab sample.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities, unless results of the TCMP (Part III.C.2.) indicate that more stringent limitations are necessary.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 502 - Y-12 Central Pollution Control Facility (CPCF-II) and West End Treatment Facility (WETF) and shall remain in effect until permit expiration, however, at the end of one year the final effluent limitations shall be reviewed and may be revised to protect the stream use classification of the receiving stream (See Note (A)).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Cadmium, Total	0.07(0.16)	0.19(0.40)	0.26	0.69	Daily	Composite	Effluent
Chromium, Total	0.50(1.0)	0.75(1.70)	1.71	2.77	Daily	Composite	Effluent
Copper, Total	0.60(1.24)	0.92(2.0)	2.07	3.38	Daily	Composite	Effluent
Lead, Total	0.12(0.26)	0.19(0.40)	0.43	0.69	Daily	Composite	Effluent
Nickel, Total	0.65(1.43)	1.10(2.40)	2.38	3.98	Daily	Composite	Effluent
Silver, Total	0.07(0.14)	0.12(0.26)	0.24	0.43	Daily	Composite	Effluent
Zinc, Total	0.40(0.90)	0.70(1.60)	1.48	2.61	Daily	Composite	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Daily	Grab	Effluent
Total Toxic Organics	----	0.6(1.30)	----	2.13	Once/Week	Composite	Effluent
Total Suspended Solids	8.5(18.60)	16.40(36.0)	31.0	60.0	Daily	Composite	Effluent
Cyanide	0.2(0.40)	0.33(0.72)	0.65	1.20	Daily	Grab	Effluent
Oil and Grease	7.10(16.0)	14.2(31.2)	26.0	52.0	Daily	Grab	Effluent

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The barium, nitrate, phosphorous, sulfate, fluoride, aluminum, arsenic, beryllium, iron mercury, calcium, cobalt, magnesium, manganese, molybdenum, sodium, chloride, and potassium parameters shall be monitored once per day by a composite sample taken at the effluent.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
8. The total residual chlorine shall be monitored once per day by a grab sample taken at the effluent.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities, unless results of the TCMP (Part III.C.2.) indicate that more stringent limitations are necessary.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 503 - Y-12 Steam Plant Wastewater Treatment Plant and shall remain in effect until permit expiration. However, at the end of the year the final effluent limitations shall be reviewed and may be revised to protect the stream use classifiction of the receiving stream (See Note (A)).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow, m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Chromium, Total	0.38(0.83)	0.38(0.83)	0.20	0.20	3/Week	Composite	Effluent
Copper, Total	1.89(4.17)	1.89(4.17)	1.0	1.0	3/Week	Composite	Effluent
Iron, Total	1.89(4.17)	1.89(4.17)	1.0	1.0	3/Week	Composite	Effluent
Zinc, Total	1.89(4.17)	1.89(4.17)	1.0	1.0	3/Week	Composite	Effluent
Oil and Grease	28.4(62.6)	37.9(83.4)	15.0	20.0	3/Week	Grab	Effluent
Total Suspended Solids	57.0(125)	189(417)	30.0	100.0	3/Week	Composite	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	3/Week	Grab	Effluent

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored three per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The chloride, phosphorous, sulfate, sulfide, fluoride, aluminum, arsenic, cadmium, lead, mercury, nickel, selenium, barium, cobalt, magnesium, manganese, potassium, calcium, sodium, and titanium parameters shall be monitored three times per week by a composite sample taken at the effluent. If significant quantities of these pollutants are recorded, the permit will be modified to reflect appropriate effluent limitations and/or a TCMP shall be implemented.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
8. The total phenols shall be monitored three times per week by a grab sample taken at the effluent.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 504 - Y-12 Plating Rinse Water Treatment Facility and shall remain in effect until permit expiration. However, at the end of one year the final effluent limitations shall be reviewed and may be revised to protect the stream use classification of the receiving stream (See Note (A)).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Cadmium, Total	0.07(0.16)	0.19(0.40)	0.26	0.69	3/Week	Composite	Effluent
Cyanide, Total	0.20(0.40)	0.33(0.72)	0.65	1.20	3/Week	Grab	Effluent
Chromium, Total	0.50(1.0)	0.75(1.70)	1.71	2.77	3/Week	Composite	Effluent
Copper, Total	0.60(1.24)	0.92(2.0)	2.07	3.38	3/Week	Composite	Effluent
Lead, Total	0.12(0.26)	0.19(0.40)	0.43	0.69	3/Week	Composite	Effluent
Nickel, Total	0.65(1.43)	1.10(2.40)	2.38	3.98	3/Week	Composite	Effluent
Silver, Total	0.07(0.14)	0.12(0.26)	0.24	0.43	3/Week	Composite	Effluent
Zinc, Total	0.40(0.90)	0.70(1.60)	1.48	2.61	3/Week	Composite	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	3/Week	Grab	Effluent
Total Toxic Organics	----	0.60(1.30)	----	2.13	Once/Week	Composite	Effluent
Oil and Grease	7.10(16.0)	14.2(31.2)	26.0	52.0	3/Week	Grab	Effluent
Total Suspended Solids	8.5(18.60)	16.40(36.0)	31.0	60.0	3/Week	Composite	Effluent

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored three per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The potassium, nitrate, phosphorous, sulfate, beryllium, fluoride, aluminum, iron, mercury, chloride, and sodium parameters shall be monitored three times per week by a composite sample taken at the effluent.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities, unless results of the TCMP (Part III.C.2.) indicate that more stringent limitations are necessary.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 505 - Oak Ridge National Laboratory (ORNL) - Biology Wastewater Treatment Facility and shall be in effect until permit expiration.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
✓Cadmium, Total	0.071(0.156)	0.19(0.414)	0.26	0.69	3/Week	Composite	Effluent
✓Chromium, Total	0.47(1.03)	0.76(1.66)	1.71	2.77	3/Week	Composite	Effluent
✓Copper, Total	0.56(1.24)	0.92(2.03)	2.07	3.38	3/Week	Composite	Effluent
✓Lead, Total	0.12(0.26)	0.19(0.41)	0.43	0.69	3/Week	Composite	Effluent
✓Mercury, Total	0.0005(.0012)	0.001(0.0024)	0.002	0.004	3/Week	Composite	Effluent
✓Nickel, Total	0.65(1.43)	1.08(2.39)	2.38	3.98	3/Week	Composite	Effluent
✓Silver, Total	0.065(0.14)	0.12(0.26)	0.24	0.43	3/Week	Composite	Effluent
✓Zinc, Total	0.40(0.90)	0.71(1.57)	1.48	2.61	3/Week	Composite	Effluent
Oil and Grease	2.73(6.0)	4.09(9.01)	10.0	15.0	3/Week	Grab	Effluent
Phenols, Total	0.012(0.024)	0.024(0.048)	0.04	0.08	3/Week	Grab	Effluent
✓Cyanide	0.18(0.39)	0.33(0.72)	0.65	1.20	3/Week	Grab	Effluent
Total Toxic Organics	----	0.58(1.28)	----	2.13	3/Week*	Grab	Effluent
Temperature, °F (°C)	----	----	----	86.9(30.5)	3/Week	Grab	Effluent
Total Halomethanes							
✓Chloroform	0.052(0.11)	0.104(0.22)	0.19	0.38	3/Week	Grab	Effluent
Bromodichloromethane	0.052(0.11)	0.104(0.22)	0.19	0.38	3/Week	Grab	Effluent
Dibromochloromethane	0.052(0.11)	0.104(0.22)	0.19	0.38	3/Week	Grab	Effluent
Bromoform	0.052(0.11)	0.104(0.22)	0.19	0.38	3/Week	Grab	Effluent

*For an evaluation period of three months. At the end of the evaluation period the frequency may be adjusted or specific toxic organics will be chosen for further monitoring.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored three per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The barium, iron, selenium, boron, magnesium, manganese, titanium, fluoride, phosphorous, sulfate, aluminum, molybdenum, antimony, arsenic, copper, beryllium, and calcium. Effluent characteristics shall be monitored three times per week by a composite sample taken at the effluent.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
8. The total residual chlorine shall be monitored three times per week by a grab sample taken at the effluent.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities, unless results of the TCMP (Part III.C.2.) indicate that more stringent limitations are necessary.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 506 - Oak Ridge National Laboratory (ORNL) - Building 9204-3 Sump Pump Oil Separator and shall be in effect until permit expiration.

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Weekly	Instantaneous	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Weekly	Grab	Effluent
Oil and Grease	----	----	10.0	15.0	Weekly	Grab	Effluent

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units and shall be monitored once per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the compliance date of Serial Number Discharge 507 - Y-12 Plant S-3 Ponds Liquid Treatment Facility and shall remain in effect until permit expiration. However, at the end of one year the final effluent limitations shall be reviewed and may be revised to protect the stream use classification of the receiving stream (See Note (A)).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Silver, Total	0.13(0.29)	0.23(0.52)	0.24	0.43	Daily	Composite	Effluent
Cadmium, Total	0.14(0.31)	0.38(0.83)	0.26	0.69	Daily	Composite	Effluent
Cyanide, Total	0.35(0.78)	0.65(1.44)	0.65	1.20	Daily	Grab	Effluent
Chromium, Total	0.93(2.05)	1.51(3.33)	1.71	2.77	Daily	Composite	Effluent
Copper, Total	1.13(2.49)	1.84(4.06)	2.07	3.38	Daily	Composite	Effluent
Nickel, Total	1.30(2.86)	2.17(4.78)	2.38	3.98	Daily	Composite	Effluent
Lead, Total	0.23(0.52)	0.38(0.83)	0.43	0.69	Daily	Composite	Effluent
Zinc, Total	0.81(1.78)	1.42(3.14)	1.48	2.61	Daily	Composite	Effluent
Total Toxic Organics	----	1.16(2.56)	----	2.13	Once/Week	Composite	Effluent
Total Suspended Solids	16.9(37.25)	32.7(72.1)	31.0	60.0	Daily	Composite	Effluent
Oil and Grease	14.2(31.2)	28.4(62.5)	26.0	52.0	Daily	Grab	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Daily	Grab	Effluent

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored three per week by a grab sample taken at the effluent.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts.
4. The effluent shall not cause a visible sheen on the receiving waters.
5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving wastes.
6. The arsenic, aluminum, mercury, beryllium, sulfates, barium, nitrates, fluorides, and calcium effluent characteristics shall be monitored once per day by a composite sample taken at the effluent.
7. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
8. The total residual chlorine shall be monitored once per day by a grab sample taken at the effluent.

NOTE (A): During the life of the permit, the stream use classifications of East Fork Poplar Creek shall be protected. East Fork Poplar Creek has been classified for fish and aquatic life, recreation, irrigation, livestock watering, and wildlife.

The final effluent limitations and monitoring requirements for the above effluent characteristics shall remain in effect for an evaluation period of one year, starting from the compliance date of the facility. During the evaluation period, the permittee shall maximize treatment performance. Records indicating the optimization of treatment plant performance shall be made available to EPA and TDHE. At the end of the evaluation, the final effluent limitations may be revised to reflect treatment capabilities, unless results of the TCMP (Part III.C.2.) indicate that more stringent limitations are necessary.

During the life of the permit, water quality of East Fork Poplar Creek shall be studied in accordance with the Biological Monitoring Plan and Abatement Program (Part III.C.7.). If the stream use classifications are not being met by the conclusion of the evaluation period for the last facility constructed, the permittee shall determine the modifications that are necessary to bring the existing treatment processes into compliance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

Prior to initial discharge being allowed and monthly thereafter, the permittee shall demonstrate that the effluent will not cause chronic toxicity in the receiving stream according to the conditions of the TCMP. All quality assurance criteria used shall be in accordance with Methods for Measuring the Acute Toxicity of Effluent to Aquatic Organisms, EPA-600/4-85-013, March 1985, Third Edition. All test organisms and procedures used shall be in accordance with the protocols for the 7-day Fat Head Minnow Larval test as provided by EPA ESD. The selection of an appropriate control water for the chronic toxicity tests shall be submitted to the EPA for review and approval prior to use.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for Serial Number Discharge 508 - Experimental Mobile Wastewater Treatment Facility, disassembly and de-commissioning of Building 9201-4.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Mercury, Total	----	----	0.002	0.004	Daily	Composite	Effluent
Total Suspended Solids	----	----	30.0	45.0	Daily	Composite	Effluent

2. The sulfate, sulfide, fluoride, aluminum, arsenic, beryllium, cadmium, chromium, copper, iron, lead, nickel, silver, sodium, and zinc shall be monitored once per day by a composite sample taken at the effluent.

3. The color, oil and grease, cyanide, and the chlorinated organic compounds shall be monitored once per day by a grab sample taken at the effluent.

4. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.

5. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by a grab sample taken at the effluent.

6. There shall be no discharge of floating solids or visible foam in other than trace amounts.

7. The effluent shall not cause a visible sheen on the receiving waters.

(Continued)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

8. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

9. Following one year of operation, the U.S. DOE will submit a report including monitoring results, cost of treatment, and acute and chronic toxicity data for consideration by the U.S. EPA and by the TDHE to re-evaluate the initial effluent limits. However, the DOE should notify EPA and TDHE within 10 days if any of the monitored parameters exceed the BAT limitations established for the metal finishing industry category.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration for Serial Number Discharge 508 - Experimental Mobile Wastewater Treatment Facility, water main breaks caused by distribution system failures.

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Continuous	Effluent
Mercury, Total	----	----	0.001	0.002	Daily	Composite	Effluent
Total Suspended Solids	----	----	30.0	45.0	Daily	Composite	Effluent

2. The sulfate, sulfide, fluoride, aluminum, arsenic, beryllium, cadmium, chromium, copper, iron, lead, nickel, silver, sodium, and zinc shall be monitored once per day by a composite sample taken at the effluent.
3. The color, oil and grease, cyanide, and the chlorinated organic compounds shall be monitored once per day by a grab sample taken at the effluent.
4. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
5. The ph shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by a grab sample taken at the effluent.
6. There shall be no discharge of floating solids or visible foam in other than trace amounts.
7. The effluent shall not cause a visible sheen on the receiving waters.

A. EFFLUENTS LIMITATIONS AND MONITORING REQUIREMENTS - FINAL (Continued)

8. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.

9. Following one year of operation, the U.S. DOE will submit a report including monitoring results, cost of treatment, and acute and chronic toxicity data for consideration by the U.S. EPA and by the TDHE to re-evaluate the initial effluent limits. These monitoring studies shall continue for the duration of the discharge and include the submission of annual reports as stated above. However, the DOE should notify EPA and TDHE within 10 days if any of the monitored parameters exceed the BAT limitations established for the metal finishing industry category.

30,000 calories / 100 ml

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - FINAL

1. These effluent limitations are to be achieved by the effective date of the permit, and shall remain in effect until permit expiration Serial Number Outfall 510 - Waste Coolant Processing Facility (WCPF).

   Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	kg/day (lbs/day)		Other Units (mg/l)				
	Daily Avg.	Daily Max	Daily Avg.	Daily Max	Measurement Frequency	Sample Type	Sampling Point
Flow-m^3/Day (MGD)	----	----	----	----	Daily	Instantaneous	Effluent
Temperature, °F(°C)	----	----	----	86.9(30.5)	Weekly	Grab	Effluent
Oil and Grease	----	----	15.0	20.0	Weekly	Grab	Effluent
Total Suspended Solids	----	----	----	100.0	Weekly	Grab	Effluent
Biochemical Oxygen Demand (5-day)	1.33(2.92)	2.65(5.84)	----	----	Weekly	Grab	Effluent

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per week by a grab sample taken at the effluent.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts.
5. The effluent shall not cause a visible sheen on the receiving waters.
6. The effluent limits, and any additional requirements, specified in the attached state certification supercede any less stringent limits listed above. During any time in which the more stringent state certification effluent limits are stayed and inoperable, the effluent limits listed above shall be in effect and fully enforceable.
7. The authorization for this discharge will terminate when the West End Treatment Facility compliance level attained date is achieved.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall comply with Final Effluent Limitations specified for discharges in accordance with the following schedule:

Permittee shall comply with Final Effluent Limitations by the effective date of the permit for the following serial numbered and named outfalls:

301 - Kerr Hollow Quarry
302 - Rogers Quarry
303 - New Hope Pond
304 - Bear Creek
305 - Leaking Burial Grounds and Wet Weather Springs
306 - Seepage from Burial Pit and Surface Water Runoff
N/A - Category I Outfalls - Precipitation Runoff and Small Amounts of Groundwater
N/A - Category II Outfalls - Cooling Water, Condensate, Precipitation Runoff, and Building, Roof, and Foundation Drains
508 - Experimental Mobile Wastewater Treatment Facility
623 - Y-12 Plant - Fly Ash Sluice Water
N/A - Category III Outfalls - Process Wastewaters
N/A - Miscellaneous Source Discharges
N/A - Category IV Outfalls - Untreated Waste Streams

2. The permittee shall attain effluent limitations by the compliance level attained date for each of the following new wastewater treatment plant constructions. Construction for these facilities are governed by the Federal Facilities Compliance Agreement which was entered into between the permittee and the U.S. EPA.

A. Central Pollution Control Facility - CPCF I

Completion of Final Plans:	07/18/83
Commence Construction:	10/03/83
Completion of Construction:	06/30/85
Compliance Level Attained:	12/30/85

B. Central Pollution Control Facility - CPCF II

Completion of Final Plans:	03/30/85
Commence Construction:	01/01/85
Completion of Construction:	11/30/85
Compliance Level Attained:	03/30/86

C. West End Treatment Facility (WETF)

Completion of Final Plans:	03/30/85
Commence Contruction:	07/01/85
Completion of Construction:	09/30/86
Compliance Level Attained:	01/31/87

(Continued)

D. Steam Plant Wastewater Treatment Facility

Completion of Final Plans:	10/31/85
Commence Construction:	02/01/86
Completion of Construction:	09/30/87
Compliance Level Attained:	03/30/88

E. Plating Rinse Water Treatment Facility

Completion of Final Plans:	06/30/85
Commence Construction:	10/01/85
Completion of Construction:	11/30/86
Compliance Level Attained:	02/28/87

F. Oak Ridge National Laboratory Facilities Operated at the Y-12 Plant Site

1. Biology Wastewater Treatment Facility

Completion of Final Plans:	10/30/86
Commence Construction:	02/28/87
Completion of Construction:	10/30/88
Compliance Level Attained:	03/30/89

2. Isotope Separation Process Wastewater Collection Tank

Completion of Final Plans:	01/31/85
Commence Construction:	03/31/85
Completion of Construction:	01/31/86
Compliance Level Attained:	04/30/86

3. Building 9204-3 Sump Pump Oil Separator

Completion of Final Plans:	12/31/85
Commence Construction:	02/28/86
Completion of Construction:	01/31/87
Compliance Level Attained:	04/30/87

4. Building No. 9201-2 Ion Resin Regeneration Waste Collection Tank

Completion of Final Plans:	10/31/84
Commence Construction:	02/28/85
Completion of Construction:	09/30/85
Compliance Level Attained:	10/31/85

(Continued)

G. Category III Outfalls: Process Wastewater

Sampling and Characterization Program Completion:	December, 1983
Process Wastewater Elimination Completion:	March, 1989

H. S-3 Ponds Liquid Treatment Facility

Completion of Final Plans:	09/15/84
Commence Construction:	07/01/84
Completion of Construction:	03/31/85
Compliance Level Attained:	Upon initial discharge (Projected to be around May 1985)

I. Waste Coolant Processing Facility (WCPF)

Completion of Final Plans:	08/30/84
Commence Construction:	11/30/84
Completion of Construction:	09/30/85
Compliance Level Attained:	12/31/85

J. East End Waste Facility

Completion of Final Plans:	05/31/85
Commence Construction:	09/03/85
Completion of Construction:	07/31/86
Compliance Level Attained:	08/31/86

3. The permittee shall at all times provide the operation and maintenance necessary to operate the existing facilities at optimum efficiency.

4. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or non-compliance. In the latter case, the notice shall include the cause of non-compliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Any person who violates a permit condition is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, terminated or revoked for cause (as described in 40 CFR 122.62 et seq) including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any conditions that requires either temporary interruption or elimination of the permitted discharge; or

d. Information newly acquired by the Agency indicating the discharge poses a threat to human health or welfare.

If the permittee believes that any past or planned activity would be cause for modification or revocation and reissuance under 40 CFR 122.62, the permittee must report such information to the Permit Issuing Authority. The submittal of a new application may be required of the permittee. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Toxic Pollutants

Notwithstanding Paragraph A-4, above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" Section B, Paragraph B-3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

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

8. State Laws

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

9. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any waters of the United States.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

12. Duty to Provide Information

The permittee shall furnish to the Permit Issuing Authority, within a reasonable time, any information which the Permit Issuing Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Permit Issuing Authority upon request, copies of records required to be kept by this permit.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility, which is not a designed or established operating mode for the facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraphs c. and d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and effect of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-8 (24-hour notice).

d. Prohibition of bypass.

(1) Bypass is prohibited and the Permit Issuing Authority may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notices as required under Paragraph c. of this section.

(2) The Permit Issuing Authority may approve an anticipated bypass, after considering its adverse effects, if the Permit Issuing Authority determines that it will meet the three conditions listed above in Paragraph d.(1) of this section.

4. Upsets

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. An upset constitutes an affirmative defense to an action brought for non-compliance with such technology based permit limitation if the requirements of 40 CFR 122.41(n)(3) are met.

5. Removed Substances

This permit does not authorize discharge of solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters to waters of the United States unless specifically limited in Part 1.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10% from the true discharge rates throughout the range of expected discharge volumes. Once-through condenser cooling water flow which is monitored by pump logs, or pump hour meters as specified in Part I of this permit and based on the manufacturer's pump curves shall not be subject to this requirement. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

1. "A Guide of Methods and Standards for the Measurement of Water Flow", U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 97 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD catalog No. C13.10:421.)

2. "Water Measurement Manual", U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by catalog No. 127.19/2:W29/2, Stock No. S/N 24003-0027.)

(3) "Flow Measurement in Open Channels and Closed Conduits", U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS), Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

(4) "NPDES Compliance Flow Measurement Manual", U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-77, September 1981, 135 pp. (Available from the General Services Administration (8BRC), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver, CO 80225.)

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

5. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by the Permit Issuing Authority at any time.

6. Record Contents

Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

7. Inspection and Entry

The permittee shall allow the Permit Issuing Authority, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable time any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Change in Discharge

The permittee shall give notice to the Permit Issuing Authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source; or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D, Paragraph D-10(a).

2. Anticipated Noncompliance

The permittee shall give advance notice to the Permit Issuing Authority of any planned change in the permitted facility or activity which may result in noncompliance with permit requirements. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Permit Issuing Authority.

3. Transfer of Ownership or Control

A permit may be automatically transferred to another party if:

a. The permittee notifies the Permit Issuing Authority of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The Permit Issuing Authority does not notify the existing permittee of his or her intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph b.

4. Monitoring Reports

See Part III of this permit.

5. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased frequency shall also be indicated.

6. Averaging of Measurements

Calculations for limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Issuing Authority in the permit.

7. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

8. Twenty-Four Hour Reporting

The permittee shall orally report any noncompliance which may endanger health or the environment, within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permit Issuing Authority may verbally waive the written report, on a case-by-case basis, when the oral report is made.

The following violations shall be included in the 24 hour report when they might endanger health or the environment:

a. An unanticipated bypass which exceeds any effluent limitation in the permit.

b. Any upset which exceeds any effluent limitation in the permit.

9. Other Noncompliance

The permittee shall report in narrative form, all instances of noncompliance not previously reported under Section D, Paragraphs D-2, D-4, D-7, and D-8 at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D-8.

10. Changes in Discharges of Toxic Substances

The permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony; or

(3) Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant (listed at 40 CFR 122, Appendix D. Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 ug/l);

(2) One milligram per liter (1 mg/l) for antimony; or

(3) Ten (10) times the maximum concentration value reported for that pollutant(s) in the permit application.

11. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. The Permit Issuing Authority may grant permission to submit an application less than 180 days in advance but not later than the permit expiration date.

Where EPA is the Permit Issuing Authority, the terms and conditions of this permit are automatically continued in accordance with 40 CFR 122.6, only where the permittee has submitted a timely and sufficient application for a renewal permit and the Permit Issuing Authority is unable through no fault of the permittee to issue a new permit before the expiration date.

12. Signatory Requirements

All applications, reports, or information submitted to the Permit Issuing Authority shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (1) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making functions for the corporation, or (2) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Permit Issuing Authority.

c. Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under the 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."

13. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Permit Issuing Authority. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.

14. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

SECTION E. DEFINITIONS

1. Permit Issuing Authority

The Regional Administrator of EPA Region IV or his designee, unless at some time in the future the State receives authority to administer the NPDES program and assumes jurisdiction over the permit; at which time, the Director of the State program receiving authorization becomes the issuing authority.

2. Act

"Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended by Public Law 95-217 and Public Law 95-576, 33 U.S.C. 1251 et seq.

3. Mass/Day Measurements

a. The "average monthly discharge" is defined as the total mass of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month. It is therefore, an arithmetic mean found by adding the weights of the pollutant found each day of the month and then dividing this sum by the number of days the tests were reported. The limitation is identified as "Daily Average" or "Monthly Average" in Part I of the permit and the average monthly discharge value is reported in the " Average" column under "Quantity" on the Discharge Monitoring Report (DMR).

b. The "average weekly discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar week on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such week. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the week and then dividing this sum by the number of days the tests were reported. This limitation is identified as "Weekly Average" in Part I of the permit and the average weekly discharge value is reported in the "Maximum" column under "Quantity" on the DMR.

c. The "maximum daily discharge" is the total mass (weight) of a pollutant discharged during a calendar day. If only one sample is taken during any calendar day the weight of pollutant calculated from it is the "maximum daily discharge". This limitation is identified as "Daily Maximum", in Part I of the permit and the highest such value recorded during the reporting period is reported in the "Maximum" column under "Quantity" on the DMR.

d. The "average annual discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar year on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such year. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the year and then dividing this sum by the number of days the tests were reported. This limitation is defined as "Annual Average" in Part I of the permit and the average annual discharge value is reported in the "Average" column under "Quantity" on the DMR. The DMR for this report shall be submitted in January for the previous reporting calendar year.

4. Concentration Measurements

a. The "average monthly concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average monthly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar month. This limitation is identified as "Monthly Average" or "Daily Average" under "Other Limits" in Part I of the permit and the average monthly concentration value is reported under the "Average" column under "Quality" on the DMR.

b. The "average weekly concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar week on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such week (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average weekly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar week. This limitation is identified as "Weekly Average" under "Other Limits" in Part I of the permit and the average weekly concentration value is reported under the "Maximum" column under "Quality" on the DMR.

c. The "maximum daily concentration" is the concentration of a pollutant discharge during a calendar day. It is identified as "Daily Maximum" under "Other Limits" in Part I of the permit and the highest such value recorded during the reporting period is reported under the "Maximum" column under "Quality" on the DMR.

d. The "average annual concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar year on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such year (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average yearly count for fecal coliform bacteria is the geometric mean of the counts

for samples collected during a calendar year. This limitation is identified as "Annual Average" under "Other Limits" in Part I of the permit and the average annual concentration value is reported under the "Average" column under "Quality" on the DMR. The DMR for this report shall be submitted in January for the previous reporting year.

5. Other Measurements

a. The effluent flow expressed as M^3/day (MGD) is the 24 hour average flow averaged monthly. It is the arithmetic mean of the total daily flows recorded during the calendar month. Where monitoring requirements for flow are specified in Part I of the permit the flow rate values are reported in the "Average" column under "Quantity" on the DMR.

b. An "instantaneous flow measurement" is a measure of flow taken at the time of sampling, when both the sample and flow will be representative of the total discharge.

c. Where monitoring requirements for pH, dissolved oxygen or fecal coliform bacteria are specified in Part I of the permit, the values are generally reported in the "Quality or Concentration" column on the DMR.

6. Types of Samples

a. Composite Sample: A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over the full time period specified in Part I.A. The composite sample must be flow proportioned by either time interval between each aliquot or by volume as it relates to effluent flow at the time of sampling or total flow since collection of the previous aliquot. Aliquots may be collected manually or automatically.

b. Grab Sample: A "grab sample" is a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the total discharge.

7. Calculation of Means

a. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.

b. Geometric Mean: The geometric mean of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

c. Weighted by Flow Value: Weighted by flow value means the summation of each concentration times its respective flow divided by the summation of the respective flows.

8. Calendar Day

A calendar day is defined as the period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

9. Hazardous Substance

A hazardous substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

10. Toxic Pollutant

A toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

Part III

OTHER REQUIREMENTS AND SPECIAL CONDITIONS

A. Reporting of Monitoring Results

Monitoring results obtained during the previous 3 month(s) shall be summarized for each month (each quarter if monitoring frequency is quarterly) and must be reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on July 28, 1985. Duplicate signed copies of these, and all other reports required by Section D of Part II, Reporting Requirements, shall be submitted to the Permit Issuing Authority and the State at the following addresses:

Environmental Protection Agency
Region IV
Facilities Performance Branch
Water Management Division
345 Courtland Street, NE
Atlanta, Georgia 30365

Tennessee Department of Health
and Environment
T.E.R.R.A. Building
150 Ninth Avenue, North
Nashville, Tennessee 37203

B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C), and (D); 304(b)(2); and, 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

C. Special Conditions

1. Category I and II Outfalls Best Management Plan

a. Best Management Plan (BMP)

For purposes of this part, the terms "pollutant" or "pollutants" refer to any substance listed as toxic under Section 307(a)(1) of the Clean Water Act, oil, as defined in Section 311(a)(1) of the Act, and any substance listed as hazardous under Section 311 of the Act. The permittee shall develop and implement a Best Management Practices (BMP) plan which prevents, or minimizes the potential for, the discharge of wastewater from the Category I and II Outfalls. The plan shall include a baseline BMP and an updated version of the permittee's Area Source Pollution Management Control Proposal initially dated February 15, 1984.

b. Implementation

The Baseline BMP plan and update of the Area Source Pollution Control Plan shall be developed within six (6) months after the effective date of this permit. The Baseline BMP shall be implemented as soon as practicable but not later than twelve (12) months after the effective date of the permit. The Area Source Pollution Control Plan shall be implemented according to the proposal.

c. General Requirements

The BMP plan shall:

i. Be documented in narrative form.

ii. Establish specific objectives for the control of pollutants.

1. Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the United States.

iii. Establish specific best management practices to meet the objectives identified under paragraph b. on this section.

iv. Specify the parameters to be monitored, frequency of monitoring, and the results shall be submitted to the USEPA and to the TDHE on a quarterly basis.

d. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available to the permit issuing authority and to the State of Tennessee upon request.

e. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility.

f. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of significant amounts of pollutants to surface waters and the specific objectives and requirements under paragraphs 1(a) and (b) of Section C - Category II Outfalls, the permit and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements and/or effluent limitations.

2. Cooling Towers, Central Pollution Control Facility - CPCF-I, Central Pollution Control Facility - CPCF-II, Plating Rinse Water Treatment Facility, the S-3 Ponds Liquid Treatment Facility, the Category IV Discharges, and the Biology Wastewater Treatment Facility, Toxicity Control and Monitoring Program

a. Toxicity Control and Monitoring Program (TCMP)

In accordance with Section 301(a) and pursuant to the authority of Section 308 of the Clean Water Act, an evaluation of the toxicity of wastewater discharged from the Y-12 Cooling Towers, the Central Pollution Control Facility-CPCF-I, the Central Pollution Control Facility-CPCF-II, the Y-12 Plating Rinse Water Treatment Facility, and the Y-12 S-3 Ponds Liquid Treatment Facility, the Category IV Discharges, and the Biology Wastewater Treatment Facility shall be conducted to determine if there is a need to develop a toxicity control and monitoring program. The required evaluation shall be accomplished by providing existing bioassay or toxicity data or performing bioassay studies that provide information on the toxic and bioaccumulation potential of the identified discharge(s).

i. Where existing data are insufficient, the permittee shall develop a plan of study to evaluate the wastewater toxicity. As a minimum, the plan of study must develop information on the acute and/or chronic toxicity of the whole waste. The plan of study shall include a study implementation schedule, a consideration of waste variability, evaluation of wastewater dispersion and persistence in the receiving water, and an assessment of accumulation and concentration of toxic components in the receiving water body and biota.

ii. If the study results in a determination by EPA, and the State of Tennessee that wastes are discharged in toxic amounts exceeding federal, state, or local requirements, the permittee will then be required to submit a toxicity control plan (including an implementation schedule) within 90 days of the determination. The control plan shall include appropriate measures such as in-plant controls (process, raw material, or product changes) or additional wastewater discharges to acceptable levels. Depending on the complexity of the problem, the timing of the plan submitted and the implementation schedule may be negotiable.

iii. Once the control program has been fully implemented periodic biological monitoring may be required to assure continued control of toxicity.

b. <u>Schedule for Evaluation of Toxicity of Wastewaters</u>

i. The permittee shall submit any existing toxicity or bioassay data for review by the EPA and the TDHE within 30 days of the effective date of this permit. EPA will review submitted data to determine if it is sufficient to assess wastewater toxicity effects.

ii. If such data are unavailable or insufficient, the permittee shall submit a plan of study within 60 days of the compliance date of the facility, or within 30 days of the insufficiency determination by EPA and the TDHE, to evaluate wastewater toxicity. The EPA and the TDHE will review the plan of study and upon approval, the plan of study will become a part of this permit.

iii. The permittee shall submit data concerning wastewater and production variability with the plan of study.

- If the permittee can demonstrate that wastewater characteristics do not change on a seasonal basis or otherwise do not vary, the wastewater toxicity study shall be completed within 6 months of EPA and the TDHE approval of the plan of study.

- If the wastewater characteristics change on a seasonal basis or otherwise vary, the wastewater toxicity study shall be completed within 12 months of EPA and the TDHE approval of the plan of study.

iv. If the study results indicate that the wastewaters are discharged in toxic amounts or are bioaccumulative, the permittee shall submit to the EPA and the TDHE a toxicity control plan and accompany implementation schedule within 90 days of the finalization of the study results.

- o Upon completion of EPA's and the TDHE's review of the toxicity control plan, this permit may be modified, or alternatively, revoked and reissued, in order to reflect appropriate permit conditions and a compliance schedule.

3. Radioactivity in Wastewaters

a. The permittee shall submit to the U.S. EPA and to the TDHE within ninety (90) days from the effective date of the permit a proposal for the radiological monitoring at Serial Number Outfalls 303 - New Hope Pond, 305 - Leaking Burial Grounds and Wet Weather Springs, 306 - Seepage from Burial Pit and Surface Water Runoff, and from the discharges from the Central Pollution Control Facility (CPCF-I), Central Pollution Control Facility (CPCF-II), Steam Plant Wastewater Treatment Plant, the Biology Wastewater Treatment Plant, the Plating Rinse Water Treatment Facility, Isotope Separation Facility, and the S-3 Ponds Liquid Treatment Facility.

4. Polychlorinated Biphenyls - PCB's

a. Polychlorinated biphenyls shall not be discharged into the East Fork Poplar Creek, Bear Creek, or the Clinch River.

The permittee shall submit to the USEPA and the TDHE within ninety days of the effective date of the permit a PCB monitoring Plan which specifies the outfalls to be monitored and their monitoring frequency.

5. Miscellaneous Source Discharges

a. The permittee shall also comply with the discharge limitations and monitoring requirements for the miscellaneous source discharges identified in Part III-Section C (12)a of the permit. The miscellaneous source discharges are those discharges that have not been identified by a serial numbered discharge.

6. Continuous pH Monitoring

a. For those discharge points with continuous monitoring equipment, the rules and regulations of 40 CFR Part 401 as published in the Federal Register, dated Friday, June 4, 1982, shall apply. More specifically, (a) where a permittee continuously measures the pH of wastewater pursuant to a requirement or option in a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to Section 402 of the Act, the permittee shall maintain the pH of such wastewater within the range set forth in the applicable effluent limitations guidelines, except excursions from the range are permitted subject to the following limitations: 1. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and, 2. No individual excursion from the range of pH values shall exceed 60 minutes, (b) The Director, as defined in 122.3 of this chapter, may adjust the requirements set forth in paragraph (a) of this section with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration or other technical factors, (c) For purpose of this section, an "excursion" is an unintential and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines.

7. Biological Monitoring Plan and Abatement Program

a. No later than three months from the effective date of the permit, the permittee will submit to the United States Environmental Protection Agency (EPA) and to the Tennessee Department of Health and Environment (TDHE) a plan for biological monitoring of the East Fork Poplar Creek. The plan shall include studies to evaluate the East Fork Poplar Creek's biological communities throughout the duration of the permit. The permittee's representative shall contact the U.S. EPA and the TDHE representatives for consultation during the preparation period of the monitoring plan. Plans for this work must have the EPA and TDHE approval prior to the work execution.

b. Upon completion of EPA's review of the Biological Monitoring Plan and Abatement Program, this permit may be modified, or alternatively, revoked or reissued, in order to reflect appropriate permit conditions and a compliance schedule.

8. Category III Outfalls - Process Wastewaters

Category III Outfalls are those discharge pipes which have been tentatively identified to contain process wastewaters. These pipes presently discharge into the headwaters of the East Fork Poplar Creek (the industrial ditch). A sampling program has been implemented to further characterize the wastewaters in each pipe. The characterization will determine the Category III wastewaters that will eventually be treated by the Central Pollution Control Facility - CPCF I and other treatment facilities. Once the Category III wastewaters have been identified, they will be allowed to continue to discharge into the East Fork Poplar Creek. The East Fork Poplar Creek discharges into Serial Number Discharge 303, New Hope Pond which has been assigned interim discharge limitations. The interim discharge limitations will remain in effect until the CPCF-I and other treatment facilities are constructed and become operational. When the facilities become operational, no unpermitted process wastewater discharges will enter the headwaters of the East Fork Poplar Creek. The Federal Activities Compliance Agreement, which is attached to the permit, indicates the proposed compliance schedule for eliminating the discharge of contaminants to the headwaters of the East Fork Poplar Creek.

9. Adjusted pH Values

The pH limitations specified for the Central Pollution Control Facility - CPCF-I, the Central Pollution Control Facility - CPCF-II, the Steam Plant Wastewater Treatment Facility, the Plating Rinsewater treatment Facility, the Biological Wastewater Treatment Facility, the S-3 ponds Liquid Treatment Facility, the Waste Coolant Processing Facility and the Experimental Mobile Wastewater Treatment Facility have been raised from 6.5 to 8.5 to 6.0 to 9.0 to allow for better heavy metal removal. At the same time, the Tennessee state water quality standard for pH (6.5 to 8.5) in the East Fork Poplar Creek shall not be violated.

10. Monitoring Requirements

After one year of monitoring and data analyses, as specified for each serial number discharge and/or named outfall, the monitoring requirements shall be reviewed. Based upon this review, the effluent monitoring requirements may be adjusted. The request and justification for these adjustments shall be submitted for approval to the U.S. EPA and to the TDHE.

11. Kerr Hollow and Rogers Quarries

a. The permittee shall submit to the U.S. EPA and to the TDHE within ninety (90) days from the effective date of the permit proposal for monitoring which will demonstrate the protection of each quarry's ground and surface water quality. The proposal shall take into consideration the characteristics of the fly ash and bottom ash.

12. Miscellaneous Source Discharges

a. Facility Definitions

i. Potable and Industrial Water Treatment Facilities: Facilities for removal of objectionable constituents such as suspended solids, taste, odor, hardness or dissolved solids so that the product may be utilized for domestic supply (drinking water) or industrial purposes. Discharges include sludges, filter backwash, brines and ion exchange regeneration wastes.

ii. Cooling Systems: Facilities for the removal of waste heat by transfer to water, all of a portion of which is then discharged. Discharges include blowdown, once through cooling water and wastes from cleaning of the system.

iii. Boilers: Facilities for the transfer of heat produced by combustion to water which is then used in liquid form or converted to steam. Discharges include blowdown, bleed off and waste from cleaning of the system.

iv. Vehicle and Equipment Cleaning Facilities: Facilities for cleaning of aircraft, motor vehicles and other equipment by washing, brushing, abrasion, steam cleaning, paint stripping, chemical degreasing, or other methods.

v. Vehicle and Equipment Maintenance Facilities: Facilities utilized for maintenance and repair of vehicles, engineer equipment and other equipment.

vi. Photographic Laboratories: Facilities utilized for processing of photographic materials.

vii. Firefighter Training Areas: Areas or facilities utilized for training of fire protection personnel utilizing fire and extinguishing materials.

b. Additional Permitted Discharges

i. Applicability

The discharge limitations and monitoring requirements below are applicable to all discharges from sources defined in Part III Section C (12)a with the exception of:

- o Discharges from such sources which are identified as serially numbered discharges in an NPDES permit.
- o Discharges from such sources which are directed to a treatment facility the discharge from which is authorized by an NPDES permit.

Discharges from such sources which when combined with other discharges or surface runoff form a discharge which is identified as a serially numbered discharge in an NPDES permit but which is not the discharge or effluent from a treatment facility, are subject to the requirements specified below.

ii. General Conditions

Discharge from sources identified in Part III Section C (12)a are authorized provided that:

- o Such discharge is in conformance with the limitations and monitoring requirements specified below:

iii. Discharge Limitations and Monitoring Requirements

During the period beginning effective date, and lasting through expiration, discharges from the sources identified in Part III Section C (12)a shall be limited and monitored by the permittee in accordance with the conditions below:

a. General Requirements

Unless otherwise specified the following requirements are applicable to all discharges.

(1) There shall be no discharge of floating solids or visible foam in other than trace amounts.

(2) The pH shall not be less than 6.5 nor greater than 8.5 and shall be monitored at the frequency specified for flow.

b. Discharge Limitations and Monitoring Requirements

i. Potable and industrial water treatment facilities including filters, softeners and demineralizers.

Effluent Characteristics	Dishcarge Limitations		Monitoring Requirements		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Flow, m^3/Day (MGD)	----	----	Daily	N/A	Effluent
Total Suspended Solids	30 mg/l	50 mg/l	1/Week(I)	Equal Volume Composite	Effluent

Note: (I) May be reduced to 1/month for discharges less than 50,000 gpd (daily maximum).

ii. Recirculating cooling water, cooling tower blowdown and cleaning wastes orginating at space cooling facilities.

Effluent Characteristics	Discharge Limitations		Monitoring Requirements(I)		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Flow, m^3/Day (MGD)	----	----	Quarterly	N/A	Effluent
Chromium, Total	----	1.0 mg/l	Quarterly(II)	Grab	Effluent
Zinc, Total	0.5 mg/l	1.0 mg/l	Quarterly(II)	Grab	Effluent
Copper, Total	0.5 mg/l	1.0 mg/l	Quarterly(II)	Grab	Effluent
Temperature, °C	35	38	Quarterly	Grab	Effluent
Temperature, °F	95	100	Quarterly	Grab	Effluent
Free Available Chlorine	0.2 mg/l	0.5 mg/l	Quarterly	Grab	Effluent

Notes:

(I) The above requirements are not applicable where:
- (a) Facilities discharge less than 10,000 GPD and are specifically utilized for space cooling; and
- (b) water conditioning chemicals utilized contain no chromium; and
- (c) discharges do not result in violation of applicable water quality standards, e.g., Temperature 86.9 °F maximum and pH 6.5 to 8.5.

(II) Monitoring of this parameter is not required if treatment or conditioning chemicals do not contain the material limited.

iii. Boiler blowdown originating at space heating facilities.

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Flow, m^3/Day (MGD)	----	----	Quarterly	N/A	Effluent
Temperature, °C	35	38	Quarterly	Grab	Effluent
Temperature, °F	95	100	Quarterly	Grab	Effluent

Note:
(1) The above requirements are not applicable where:
(a) Facilities discharge less than 10,000 GPD and are specifically utilized for space heating.
(b) Disharges do not result in violation of applicable water quality standards.

iv. Vehicle and Equipment Cleaning Facilities

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Flow, m^3/Day (MGD)	----	----	Daily	N/A	Effluent
Oil and Grease	10 mg/l	15 mg/l	1/Month	Grab	Effluent
Total Suspended Solids	25 mg/l	40 mg/l	1/Month	Grab	Effluent
Phenols, Total	1.0 mg/l	2.0 mg/l	1/Month(I)	Grab	Effluent
Biochemical Oxygen Demand (5-day)	30 mg/l	45 mg/l	1/Month(II)	Grab	Effluent
Fecal Coliform Bacteria (No. per 100 ml)	200	----	1/Month(II)	Grab	Effluent

The pH shall not be less than 6.5 nor greater than 8.5 standard unit and shall be monitored once per month by a grab sample taken at the effluent.

Notes:

(I) Required only at facilities at which stripping is performed.
(II) Required only at facilities at which sanitation equipment is cleaned.

v. Vehicle and Equipment Maintenance Areas

Discharges, including surface runoff resulting from precipitation, shall not contain more than 15 mg/l of oil and grease as a dialy maximum and shall be monitored quarterly.

vi. Photographic Laboratories

There shall be no discharge of pollutants from photographic laboratories unless as specifically authorized elsewhere in the permit.

vii. Firefighter Training Areas

Effluent Characteristics	Discharge Limitations		Monitoring Requriements		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Flow, m^3/Day (MGD)	----	----	Upon Occurrence	N/A	Effluent
pH (std. units)	6.5	8.5	1/Quarter	Grab	Effluent
Biochemical Oxygen Demand (5-day)	----	45 mg/l	1/Quarter	Grab	Effluent
Oil and Grease	----	15 mg/l	1/Quarter	Grab	Effluent
Total Suspended Solids	----	50 mg/l	1/Quarter	Grab	Effluent

viii. Vapor Blaster

Effluent Characteristics	Discharge Limitations		Monitoring Requriements		
	Daily Average	Daily Maximum	Frequency	Type	Sample Location
Total Suspended Solids	----	40 mg/l	1/Quarter	Grab	Effluent

13. Definitions

(a) Daily means five days per week excluding holidays.
(b) Weekly Composite means one 24-hour composite, one time per week.

United States Environmental Protection Agency - Region IV

Federal Facility Compliance Agreement

between the

1247

United States Department of Energy

Oak Ridge Operations, Y-12 Plant

Post Office Box "E"

Oak Ridge, Tennessee 37831

and the

United States Environmental Protection Agency - Region IV

345 Courtland Street, N.E.

Atlanta, Georgia 30365

APR 17 1985

Federal Facility Compliance Agreement

I. Scope

A. The United States Environmental Protection Agency - Region IV (U.S. EPA), and the United States Department of Energy (U.S. DOE), Oak Ridge Operations, Y-12 Plant, Oak Ridge, Tennessee, are parties to this agreement which is entered into pursuant to Executive Order 12088, October 13, 1978 (43 FR 47707). The Office of Management and Budget and the Department of Justice will take cognizance of this agreement pursuant to their respective duties to assure compliance with the environmental laws under Executive Order 12088 and the particular statutes herein addressed.

B. This agreement is entered into by the parties to assure compliance by the U.S. DOE, Oak Ridge Operations, Y-12 Plant, with the Clean Water Act (CWA) (33 USC 1251 et seq.), and implementing regulations.

C. This agreement is not and shall not be construed as a permit under the CWA nor shall it relieve the U.S. DOE of any legal obligations under the CWA which are in addition to or different from matters covered in this agreement. This agreement in no way affects requirements for each facility to apply to the U.S. EPA Region IV for applicable wastewater discharge permits under the National Pollutant Discharge Elimination System (NPDES) permitting program.

II. Authorities

A. The duties of the U.S. DOE to operate its facilities in complia with the Clean Water Act are prescribed in Section 313 of the Clean Water Act (33 USC 1323). Executive Order 12088 was promulgated to ensure Federal compliance with applicable pollution control standards. This agreement contains a "plan" as describ in Section 1-601 of Executive Order 12088 to achieve and mainta compliance with water pollution control standards.

III. Statement of Facts

A. The following facilities provide treatment to the wastewaters generated by the different process operations at the Oak Ridge Y-12 Plant and are owned, operated, or are under the control of the U.S. DOE:

1. Kerr Hollow Quarry
2. Rogers Quarry
3. New Hope Pond

B. The following facilities will provide treatment for the Oak Ridge Y-12 Plant wastewaters in the near future:

1. Central Pollution Control Facility - CPCF-I
2. Central Pollution Control Facility - CPCF-II
3. West End Treatment Facility
4. Steam Plant Wastewater Treatment Facility
5. Plating Rinse Water Treatment Facility
6. Oak Ridge National Laboratory
   - o Biology Complex
   - o Isotope Separation Process Collection Tank
   - o Building 9204-3 Sump Pump Oil Separator
   - o Ion Resin Regeneration Waste Collection Tank
7. S-3 Ponds Liquid Treatment Facility
8. Waste Coolant Processing Facility
9. East End Waste Facility

C. Category III Outfalls - Process wastewaters will eventually receive treatment as specified by the Category III Discharge Elimination Plan (Attachment B).

Wastewaters generated by the facilities listed below will not receive treatment:

1. Leaking Burial Ground
2. Seepage from Burial Pit
3. Category IV Outfalls - Untreated Wastestreams

D. Miscellaneous source discharges which may receive treatment include:

1. Potable and industrial water treatment facilities
2. Cooling systems
3. Boilers
4. Vehicle and equipment cleaning facilities
5. Vehicle and equipment maintenance facilities
6. Photographic laboratories
7. Firefighter training areas
8. Storm sewers

E. The Y-12 facility has at times failed to achieve compliance with the limitations stipulated in the National Pollutant Discharge Elimination System (NPDES) permit. Other wastewater treatment plant management practices have also resulted in NPDES permit violations i.e., high zinc concentrations. Of particular concern is the mercury contamination of the East Fork Poplar Creek, Bear Creek, and of New Hope Pond.

IV. <u>Compliance Schedules</u>

A. The Compliance Schedules for the facilities named in Paragraph III are intended to achieve compliance as expeditiously as practicable, pursuant to Section 1-601 of Executive Order 12088, and are set forth as Attachment A. The Attachment is incorporated into and made a part of this agreement. The schedules were determined after consultations between the U.S.

DOE, the U.S. EPA-Region IV and the Tennessee Department of Health and Environment (TDHE). Wherever reasonably possible, the U.S. DOE will expedite the schedules.

V. Funding

A. The U.S. DOE shall request all funds and/or authorizations from the Congress necessary to achieve the compliance schedules. These schedules are fixed and definite except to the extent that the Congress of the United States may fail to approve authorization and/or budget requests for these projects. Steps to be taken in seeking funding shall be consistent with Sections 1-4 and 1-5 of Executive Order 12088 as implemented by the Office of Management and Budget Circular A-106 (as amended).

VI. Reporting Requirements

A. The U.S. DOE shall submit a progress report no later than 14 days after the date of achievement of each incremental step in the Compliance Schedule and upon the final compliance date as set forth in the Attachment. The progress reports will be submitted to the U.S. EPA-Region IV and to the TDHE. The status report shall indicate compliance or non-compliance with the schedule. In the event of non-compliance, the report shall include the cause of non-compliance and any remedial actions taken.

B. If the U.S. DOE has knowledge of any event which causes or may cause a delay in meeting any schedule date, the U.S. DOE shall immediately notify U.S. EPA-Region IV and the TDHE, in writing, of the anticipated delay. The U.S. DOE shall describe the anticipated length of delay, the cause or causes of the delay, the measure taken and to be taken to prevent or minimize the delay, and the timetable by which the measures shall be implemented. The U.S. DOE will take reasonable action to minimize any delay. The Regional Administrator shall make a determination whether the Compliance Schedule set forth in the Attachment shall be revised. If the U.S. DOE disagrees with this determination, the Conflict Resolution procedure described herein shall control.

C. Additionally, beginning three months after the date for achievement of the first milestone specified for each proposed construction in Attachment A, the U.S. DOE shall submit a status report to the U.S. EPA-Region IV and the TDHE detailing the progress made during that quarter. The report shall be submitted quarterly until compliance has been achieved.

D. In the event that there is an amendment of the CWA, or in the event that changes to the regulations promulgated under those statutes change the technology necessary to achieve compliance pursuant to this agreement, the schedules will be renegotiated to effect changed law or regulations. Such renegotiation shall be governed by Executive Order 12088 or any successive

Executive Orders governing such renegotiation. Any disagreements in renegotiation shall be resolved by the Conflict Resolution provisions of this agreement. During the pendency of any request for renegotiation, the attached Compliance Schedule, to the extent it does not conflict with statutory or regulatory changes, shall remain in effect unless specifically waived by the U.S. EPA-Region IV.

E. On the dates for final compliance as shown on the attachment, compliance with NPDES permit requirements must be demonstrable by testing and positive reporting of the achievement of compliance, rather than by the mere completion of construction of pollution abatement facilities.

F. Upon the U.S. DOE's demonstration of compliance, there will be a continuing obligation to comply with applicable discharge limitations under the CWA.

VII. Conflict Resolution

A. Anticipated non-compliance with, or alleged violations of, this agreement shall be brought to the attention of the Administrato: U.S. Environmental Protection Agency, Washington, D.C., for resolution by the U.S. EPA and the U.S. DOE. If necessary, the Director, Office of Management and Budget shall be notified pursuant to Sections 1-602 and 1-603 of Executive Order 12088 and shall consider such steps as are necessary to resolve any conflicts and remedy the violations.

VIII. Sanctions

A. In the event of violations of the terms of this agreement by the U.S. DOE, sanctions under the authority of Section 1-604 of Executive Order 12088, as well as enforcement procedures established by the CWA are available as enforcement mechanisms in addition to the Conflict Resolution procedures cited in Section VII - Conflict Resolution.

B. Provided that the Compliance Schedule, as attached, is met, thi agreement is considered to be in lieu of any other U.S. EPA or Federal enforcement action with regard to the facilities in Paragraph III-Statement of Fact. This agreement in no way modifies Section 504 of the CWA.

The parties agree that all information required by this Federal Facility Compliance Agreement, shall be submitted in writing and mailed to each party as follows:

Mr. Howard D. Zeller
Assistant Regional Administrator
for Policy & Management
United States Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Mr. Joe La Grone, Manager
Oak Ridge Operations
United States Department of Energy
Post Office Box "E"
Oak Ridge, Tennessee 37831

Howard D. Zeller
United States Environmental Protection Agency

March 15, 19

Date

Joe La Grone
United States Department of Energy

April 17, 1985

Date

ATTACHMENT A

Proposed Constructions:

Project Description and Compliance Schedule

Proposed Construction

1. Facility Name

Central Pollution Control Facility - CPCF-I

2. Project Description

The Central Pollution Control Facility - CPCF-I will provide treatment for the non-nitrate wastewaters generated by the Y-12 plant process operations. The treatment plan includes sedimentation, pH adjustment, chemical and/or electrical reduction, precipitation, solids removal, and carbon adsorption.

3. Compliance Schedule

Completion of Final Plans:	07/18/83
Commence Construction:	10/03/83
Completion of Construction:	06/30/85
Compliance Level Attained:	12/30/85

1. Facility Name

Central Pollution Control Facility - CPCF-II

2. Project Description

The Central Pollution Control Facility (CPCF-II) will treat for release nitrate-contaminated wastewaters that have received head end treatment and neutralizaion at Oak Ridge Gaseous Diffusion Plant (ORGDP) followed by insitu biological denitrification in existing 500,000 gallon biological reactor tanks at Y-12. The effluent will then be passed through a rotary vacuum filter before undergoing final effluent polishing steps (including carbon adsorption in existing equipment). Chlorination will be accomplished prior to discharge to one of three equalization basins where sampling will take place prior to discharge to East Fork Poplar Creek.

3. Compliance Schedule

Completion of Final Plans:	03/30/85
Commence Construction:	01/01/85
Completion of Construction:	11/30/85
Compliance Level Attained:	03/30/86

Proposed Construction

1. Facility Name

Steam Plant Wastewater Treatment Facility

2. Project Description

The Steam Plant Wastewater Treatment Facility will provide treatment for acidic and caustic discharges from the Y-12 Coal Yard and Steam Plant. The wastewaters include coal yard runoff, boiler blow down, drain water, demineralizer and ion exchange regeneration water, flyash sump overflow, and carbon backwash wastewater. The treatment facility includes concrete lined collection ditches, neutralization system, lamella tray settlers for solid/liquid separation, and a monitoring/sampling discharge station.

3. Compliance Schedule

Completion of Final Plans:	10/31/85
Commence Construction:	02/01/86
Completion of Construction:	09/30/87
Compliance Level Attained:	03/30/88

1. Facility Name

Plating Rinse Water Treatment Facility

2. Project Description

The Plating Rinse Water Treatment Facility will treat rinse water from the electroplating areas, printed circuit board fabrication area, and from the ultrasonic cleaning area. The facility's ultimate goal is to remove trace metals, organics, and cyanide from plating shop rinse waters.

3. Compliance Schedule

Completion of Final Plans:	06/30/85
Commence Construction:	10/01/85
Completion of Construction:	11/30/86
Compliance Level Attained:	02/28/87

Proposed Construction

1. Facility Name

Oak Ridge National Laboratory - Biology Wastewater Treatment Facility

2. Project Description

The Oak Ridge National Laboratory - Biology Complex's wastewater treatment plant will treat discharges from research laboratories, offices, utility areas, a biology library, storage areas, and animal holding and handling facilities. The treatment system will include pH adjustment, organic removal via carbon bed, and solids handling equipment.

3. Compliance Schedule

Completion of Final Plans:	10/30/86
Commence Construction:	02/28/87
Completion of Construction:	10/30/88
Compliance Level Attained:	03/30/89

1. Facility Name

Oak Ridge National Laboratory - Isotope Separation Process Wastewater Collection Tank

2. Project Description

The Oak Ridge National Laboratory - Isotope Separation Process wastewater collection tank will collect the wastewaters at this facility for transportation to an approved treatment system.

3. Compliance Schedule

Completion of Final Plans:	01/31/85
Commence Construction:	03/31/85
Completion of Construction:	01/31/86
Compliance Level Attained:	04/30/86

Proposed Construction

1. Facility Name

Oak Ridge National Laboratory - Building 9204-3 Sump Pump Oil Separator

2. Project Description

The Oak Ridge National Laboratory - Building 9204-3 Sump Pump Oil Separator treatment system will remove oil and grease from the sump wastewater. The treatment system includes an oil and grease separator to be placed in the discharge line between the sump and the receiving stream.

3. Compliance Schedule

Completion of Final plans:	12/31/85
Commence Construction:	02/28/86
Completion of Construction:	01/31/87
Compliance Level Attained:	04/30/87

1. Facility Name

Building No. 9201-2 Ion Resin Regeneration Waste Collection Tank

2. Project Description

Wastewater now goes to East Fork Poplar Creek as a Category III discharge. The proposed tank will collect the waste for subsequent transport to a treatment plant.

3. Compliance Schedule

Completion of Final Plans:	10/31/84
Commence Construction:	02/28/85
Completion of Construction:	09/30/85
Compliance Level Attained:	10/31/85

Proposed Construction

1. Facility Name

Category III Outfalls - Process Wastewaters

2. Project Description

Category III Outfalls are those discharge pipes which have been tentatively identified to contain process wastewaters. These pipes presently discharge into the headwaters of the East Fork Poplar Creek (the industrial ditch). A sampling program has been completed to characterize the wastewaters in each pipe. Category III wastewaters will eventually be treated by various pollution control facilities. Category III wastewaters will be allowed to continue to discharge into the East Fork Poplar Creek until treatment facilities are constructed. The East Fork Poplar Creek discharges into Serial Number Discharge 303, New Hope Pond which has been assigned interim discharge limitations. The interim discharge limitations and monitoring requirements will remain in effect until all the facilities are constructed and become operational.

3. Compliance Schedule

The Category III Outfalls with the exception of those which are permitted will cease to discharge process wastewaters to the headwaters of the East Fork Poplar Creek in accordance with Attachment B - Category III Discharge Elimination Plan.

Proposed Construction

1. Facility Name

S-3 Ponds Liquid Treatment Facility

2. Project Description

Liquid wastes to be treated by the S-3 Ponds Liquid Treatment Facility include liquid residual contents of the ponds and any contaminated precipitation which may be collected during the facility's closure. The liquids are inorganic but they may contain trace levels of organic compounds. Liquid from the ponds will be treated through six basic steps. Alum and sulfuric acid will be added to lower the pH for breaking oil emulsion.. Both lighter and heavier than water oils shall be removed from the liquid phase by phase separation. The treated effluent is filtered using a back-wash pre-coat filter prior to discharges.

The effluent from the filters will be discharged into concrete lined equalization basins. The discharge from these basins will be monitored and sampled in accordance with the NPDES permit. There are three basins with sufficient capacity for holding a 12-hour collection of treated pond effluent. Each basin has the capability to chlorinate prior to discharge.

3. Compliance Schedule

Completion of Final Plans:	09/15/84
Commence Construction:	07/01/84
Completion of Construction:	03/31/85
Compliance Level Attained:	Upon initial discharge (projected to be around May 1985)

1. Facility Name

Waste Coolant Processing Facility (WCPF)

2. Project Description

This facility will treat the biodegradable, water soluble, waste machine coolants by extended aeration. Oily, floating solids will be fed to a sludge dryer/ribbon blender to remove free liquid. After dewatering, sludges will be emptied into drums then incinerated or buried. Liquid effluent will be pumped to an aerated holding tank and transferred to the West End Treatment Facility. Settleable sludge (biomass) from the biological reactor also will be transferred to the West End Treatment Facility.

3. Compliance Schedule

Completion of Final Plans	08/30/84
Commence Construction:	11/30/84
Completion of Construction:	09/30/85
Compliance Level Attained:	12/31/85

Proposed Construction

1. Facility Name

West End Treatment Facility (WETF)

2. Project Description

The West End Treatment Facility will improve the treatment processes as provided in the Central Pollution Control Facility II (CPCF II). Head end treatment including cyanide destruction, heavy metal precipitation, neutralization, and biological nutrient addition will all be accomplished in a new process building. The WETF will discharge to CPCF II.

3. Compliance Schedule

Completion of Final Plans:	03/30/85
Commence Construction:	07/01/85
Completion of Construction:	09/30/86
Compliance Level Attained:	01/31/87

1. Facility Name

East End Waste Facility

2. Project Description

East End Waste Facility will provide a collection system for wastewater from car cleaning operations in and near Building 9712. The project includes a new sump pump, secondary containment, storage tank, and appropriate pumps and piping for transportation to the Oak Ridge Gaseous Diffusion Plant or appropriate Y-12 facility for wastewater treatment.

3. Compliance Schedule

Completion of Final Plans:	05/31/85
Commence Construction:	09/03/85
Completion of Construction:	07/31/86
Compliance Level Attained:	08/31/86

ATTACHMENT B

Category III Discharge Elimination Plans

ATTACHMENT B

CATEGORY III DISCHARGE ELIMINATION PLANS

Outfall Number	Wastewater Description	Elimination Plan	Elimination* Date
2	Garage Wastewater, Building 9712	Collect, store, and/or treat at an approved facility upon completion of East End Waste Facility	08/31/86
71	Hydroform Facility	Will be further characterized, and a schedule for permitting for direct discharge or collection facility design and construction will be submitted by July 1, 1985	To be determined
135	Decontamination Pad, Building 9206	Collection and treatment at WETF	01/31/87
147	Isotope Separation Process, Building 9204-3	Collect, store, and/or treat at an approved facility upon completion of Isotope Separation Process Wastewater Collection Tank	04/30/86
150	Zirconium-Contaminated Wastewater, Building 9212	Collection and treatment at Central Pollution Control Facility-I (CPCF-I)	12/30/85
157	Plating Rinse Water, Building 9401-2	Collection and treatment at Plating Rinse Water Treatment Facility (PRWTF)	02/28/87
160	Boiler drains, regeneration wastes, cooling water, and flow around Building 9201-4	Treatment at Steam Plant Wastewater Treatment Facility (SPWTF)	03/30/88
162	Boiler blowdown and cooling water from outdoor auxiliaries	Treatment at SPWTF	03/30/88

Outfall Number	Wastewater Description	Elimination Plan	Eliminatio: Date
163	Cooling water from indoor auxiliaries, waste condensate, deareator and floor drains	Treatment at SPWTF	03/30/88
163	Shop Wastewater, Building 9808	Collection and treatment at CPCF-I	12/30/85
166,168	Coal Pile Runoff	Treatment at SPWTF	03/30/88
169	Coolant Degradation Treatment System, Building 9204-4	Collected and treated upon completion of Waste Coolant Processing Facility (WCPF)	12/31/85
181	Plating rinse waters, ultrasonic rinse waters, Building 9201-5N	Collected and treated at PRWTF	02/28/87
191,192	Shop Wastewater, Building 9720-13	Collection and treatment at CPCF-I	12/30/85

*For wastewater treatment facilities, this date represents the "compliance level attained" milestone date stated elsewhere in this agreement.

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
Bureau of Environment
T E R R A BUILDING
150 NINTH AVENUE, NORTH
NASHVILLE, TENNESSEE 37703

May 10, 1985

Mr. Bobby Jo Davis
Chief, Environmental Protection Branch
U.S. Department of Energy-Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37831

Re: NPDES Permit No.TN0002968
Transmittal of State Certification
U.S. Dept. of Energy, Y-12 Plant
Oak Ridge, Anderson County

Dear Mr. Davis:

Enclosed is the State certification of TN0002968. If you disagree with the conditions of the certification, you may appeal the action to the Water Quality Control Board, and you will receive a hearing. The Hearing will be held in accordance with Section 69-3-110, Tennessee Code Annotated, and with the Rules of the Division of Water Pollution Control, Chapter 1200-4. If you elect to exercise your right to appeal the action, you should file a Petition requesting a hearing within thiry (30) days of the date of this letter. Such Petition must be prepared on 8 1/2-inch by 11-inch paper, addressed to the Water Quality Control Board, and filed in duplicate at the following address: Kenneth W. Bunting, Director: Division of Water Pollution Control: TERRA Building, 4th Floor: 150 9th Avenue North: Nashville, TN 37219-5404. In such Petition you must state your contention in numbered paragraphs, describing how the action of the State is inappropriate.

If you have any questions concerning this correspondence or the enclosed certification please contact Natalie Ransone at (615) 546-9221.

Sincerely yours,

Ralph M. Sinclair

Ralph M. Sinclair
Manager, Permits Section
Division of Water Pollution Control

PED/PMS/cpc

Enclosure

cc: Environmental Protection Agency
Division of Water Pollution Control, Knoxville Field
Operations Office

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
Bureau of Environment
T.E.R.R.A. BUILDING
150 NINTH AVENUE, NORTH
NASHVILLE, TENNESSEE 37203

RECEIVED MAY 17 1985 ENVIRONMENTAL ASSESSMENT DIVISION ATLANTA, GA.

May 10, 1985

Mr. Frank J. Silva
Director, Water Management Division, Region IV
Environmental Protection Agency
345 Courtland Street
Atlanta, GA 30365

Re: NPDES Permit No.TN0002968
State Certification
U.S. Department of Energy, Y-12 Plant
Oak Ridge, Anderson County

Dear Mr. Silva:

Pursuant to Section 401 of the Federal Water Pollution Control Act (as amended by the Clean Water Act of 1977), 33 U.S.C. 1251, 1341, the State of Tennessee hereby issues certification to the subject aplicant for a National Pollutant Discharge Elimination System (NPDES) Permit for a wastewater discharge.

The State of Tennessee is not aware of any condition or limitation under Section 301, Section 302, of the Federal Act that would be violated by issuance of the proposed NPDES Permit; additionally, the State of Tennessee is not aware of any standard of performance under Section 306 or Section 307 that would be violated by issuance of the proposed Permit.

This certification is contingent upon the following conditions:

1. Permittee is in no way relieved from any liability for damages which might result from the discharge of wastewater.

2. Permittee must additionally comply with all requirements, conditions, or limitations which may be imposed by any provision of the Tennessee Water Quality Control Act (T.C.A. Sections 69-3-101 through 69-3-120) or any regulations promulgated pursuant thereto.

3. The State of Tennessee reserves the right to modify or revoke this certification or to seek revocation or modification of the NPDES Permit issued subject to this certification should the State determine that the wastewater discharge violates the Tennessee Water Quality Control Act, or any applicable Water Quality Criteria, or any rules or regulations which may be promulgated pursuant to the Clean Water Act of 1977, Public Law 95-217.

4. The following special conditions are applicable to all outfalls containing radioactivity:

   a. Radioactivity shall be reduced to levels as low as reasonably achievable. At a minimum the discharge shall comply with the limitations in Schedule RHS 8-1 Table Table II, Column 2 of the Regulations of the Tennessee Department of Health and Environment, Chapter 1200-5-2. Limits are applicable at the point where the discharge enters the receiving stream.

   b. Within 90 days of the effective date of the permit, the permittee shall submit a radiological monitoring proposal for approval by the TDHE and the USEPA. The proposal shall cover all outfalls containing radioactivity, including those listed in Part III.C.3 of the permit.

If you have any questions concerning this correspondence, please contact Natalie Ransone at (615) 546-9221.

Sincerely yours,

Ralph M. Sinclair

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Manager, Permits Section
Division of Water Pollution Control

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cc: Division of Water Pollution Control, Knoxville Field Operation Office