

3.500 Jefferson Co.  
MO-0000761  
JOHN ASHCROFT  
Governor



RON KUCERA  
Acting Director

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL QUALITY  
P.O. Box 176 Jefferson City, MO 65102

December 11, 1992

Combustion Engineering, Inc.  
900 Lone Ridge Road  
Stamford, CT 06904

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the state of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing your State Operating Permit to Discharge from ABB Combustion Eng., Inc. Hematite Plant.

Monitoring reports required by the special conditions must be submitted on a periodic basis. Copies of the necessary report forms are enclosed and should be mailed to the regional office listed below. Please contact that office for additional forms.

This permit is both your Federal Discharge Permit and your new State Operating Permit and replaces all previous state operating permits for this facility. In all future correspondence regarding this facility, please refer to your State Operating Permit number.

If you have any questions concerning this permit, please do not hesitate to call this office or our St. Louis Regional Office at 10805 Sunset Office Dr., Suite 100, St. Louis, MO 63127, 314-822-0101.

Sincerely,

WATER POLLUTION CONTROL PROGRAM

Richard J. Laux  
Permit Unit Chief

RJL:lf

Enclosure

cc: EPA - Billing Branch  
ABB Combustion Eng Inc-Hematite

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STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION



## MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the law), and the Federal Water Pollution Control Act, Public Law 92-500, 92nd Congress, Hereinafter, the Act) as amended,

Permit No. MO-0000761

Owner: Combustion Engineering, Inc.

Owner's Address 900 Long Ridge Road, Stamford, Connecticut 06904

Operating Authority: N/A

Operating Authority Address: N/A

Facility Name: ABB Combustion Engineering, Inc. - Hematite Plant

Facility Address: Highway P, Hematite, Missouri 63047

Legal Description: U.S. Survey 423, (NW 1/4, SE 1/4, SW 1/4, Sec. 19 projected), T40N, R5E, Jefferson County

Receiving Stream & Basin: Unnamed tributary to Joachim Creek (Mississippi River and (07140101-19-01) (U) Central Tributaries Basin)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

### FACILITY DESCRIPTION

Outfall #001 - Industry (Nuclear Fuel Fabrication)

Flow equalization/extended aeration/chlorination and dechlorination/sludge holding tank/sludge disposal is by contract hauler.

Design population equivalent is 71.

Actual flow is 3,000 gallons per day.

Design flow is 6,000 gallons per day.

Design sludge production is 1.3 dry ton/year.

(continued on next page)

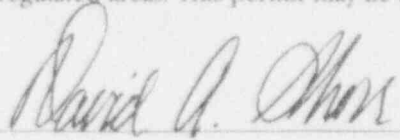
This permit only authorizes wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

December 11, 1992

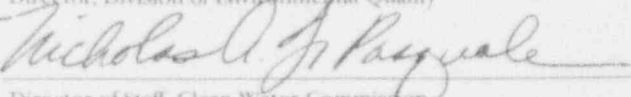
Effective Date

September 21, 1997

Expiration Date

  
David A. Shorr

Director, Division of Environmental Quality

  
Nicholas J. Pasquale  
Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #002 - Industry (Nuclear Fuel Fabrication Plant)

Effluent from Outfall #003/spring water/storm water runoff.  
Flow is dependent upon precipitation.

Outfall #003 - Industry (Nuclear Fuel Fabrication)

Stormwater runoff/cooling water/laboratory/steam condensate boiler blowdown/water softener regeneration.

Dry weather flow is 14,000 gallons per day.

Flow is dependent upon precipitation.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 3 of 6  
 PERMIT NUMBER MO-0000761

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited, and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001 - (Note 1)</u>						
Flow	MGD	*		*	once/month 24 hr. estimate	
Biochemical Oxygen Demand <sub>5</sub>	mg/l		45	30	once/quarter**	***
Total Suspended Solids	mg/l		45	30	once/quarter**	***
pH - Units	SU	****		****	once/quarter**	grab
Fecal Coliform*****	#/100 ml	1000		400	once/quarter**	grab
Chlorine, Total***** Residual (Note 2)	mg/l	1.0			once/quarter**	grab
<u>Outfall #002</u>						
Flow	MGD	*		*	once/month 24 hr. estimate	
Fluoride	mg/l	2.2		1.2	once/quarter**	grab
Total Suspended Solids	mg/l		45	30	once/quarter**	grab
pH - Units	SU	****		****	once/quarter**	grab
Oil & Grease	mg/l	15		10	once/quarter**	grab
Radioactive Materials (See Special Condition #4)						
Note 1 - The first quarterly report due date for this reissued permit is based on a complete calendar quarter monitoring period. Monitoring shall be reported once per quarter for the entire life of the permit. The permittee is still responsible for reporting for the preceding calendar quarter under the previous permit.						

MONITORING REPORTS SHALL BE SUBMITTED quarterly THE FIRST REPORT IS DUE April 28, 1993

THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I  
 STANDARD CONDITIONS DATED October 1 19 80 AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 4 of 6  
 PERMIT NUMBER MO-0000761

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited, and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #003</u>						
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand <sub>s</sub>	mg/l		45	30	once/month	grab
Total Suspended Solids	mg/l		45	30	once/month	grab
pH - Units	SU	****		****	once/month	grab
Oil and Grease	mg/l	15		10	once/month	grab
Temperature	°F	*****		*****	once/month	grab
Fluoride	mg/l	2.2		1.2	once/month	grab
* Monitoring requirement only.						
** Once per quarter during the months of February, May, August, and November.						
*** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.						
**** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.						
***** Final limitations and monitoring requirements for Fecal Coliform and Total Residual Chlorine are applicable only during the recreational season from April 1 through October 31. Fecal Coliform and Total Residual Chlorine must be measured during May, August and October of each calendar year.						
***** Effluent shall not elevate or depress the temperature of the receiving stream beyond the mixing zone more than five (5°)F. The stream temperature beyond the mixing zone shall not exceed ninety (90°)F due to the effluent. Temperature shall be monitored at Outfall #002 and upstream of Outfall #003 for comparison purposes.						
Note 2 - When chlorine is used as a disinfectant, the effluent shall be dechlorinated and there shall be no detectable chlorine in the effluent. Samples shall be taken during the months of May, August, and October.						

MONITORING REPORTS SHALL BE SUBMITTED monthly, THE FIRST REPORT IS DUE January 28, 1993

THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I  
 STANDARD CONDITIONS DATED October 1 19 80, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

C. SPECIAL CONDITIONS

1. Report as no-discharge when a discharge does not occur during the report period.
2. Permittee is to abandon the treatment facilities described herein and shall connect the tributary waste load to trunk sewers within 90 days of notice of availability if trunk sewers operated by one of the authorities outlined in Section (3)(B) 1 or 2 of Clean Water Commission Regulation 10 CSR 20-6.010 are made available to the site during the time a valid discharge permit exists.
3. This permit may 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:
  - (a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - (b) 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.

4. The permittee shall monitor for gross alpha and gross beta radiation at the following locations in accordance with the Nuclear Regulatory Commission License #SNM-33:

<u>Location</u>	<u>Frequency</u>	<u>Sample Type</u>
Effluent discharge at the dam (Outfall #002)	weekly	24 hr. composite
Joachim Creek upstream and downstream from the site creek	monthly	grab
Confluence of Joachim Creek and the site creek	quarterly	grab
On-site water supply well	monthly	grab
Hematite water supply well	quarterly	grab

A summary of all radiological monitoring data during January through June, shall be submitted to the Department by August 28 and data collected during July through December shall be submitted by February 28 of each year. Maximum values recorded at each sampling site shall also be submitted.

5. Sludge Removal and Disposal - (Outfall #001)
  - (a) Sludge shall be removed from the facility on a routine schedule based on operational testing and/or sludge holding capacity and handled in accordance with the permit facility description.
  - (b) Each effluent monitoring report shall also specify the date any sludge is removed from the facility, who removed the sludge and the number of gallons or quantity of sludge removed. When sludge disposal is by the permittee, the final disposal location shall be reported.

(continued on next page)

G. SPECIAL CONDITIONS (continued)

5. Sludge Removal and Disposal - (Outfall #001) (continued)

- (c) Sludge monitoring requirements shall be performed in accordance with, "POTW Sludge Sampling and Analysis Guidance Document", United States Environmental Protection Agency, August 1989, and subsequent revisions.
- (d) This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation so issued or approved under Section 405(d) of the Clean Water Act.
- (e) Approval of sludge handling and disposal features pertains to state regulations only and does not pertain to federal sludge requirements under 40 CFR 503. Upon promulgation of 40 CFR 503, federal sludge regulations and applicable sludge permits are administered directly by EPA.

6. Industrial Sludge Disposal - (Outfalls #001, #002 and #003)

- (a) Disposal of industrial sludge is not authorized by this permit. Industrial sludge shall be disposed at a permitted solid waste disposal facility in accordance with 10 CSR 80; or if the sludge is determined to be hazardous waste, shall be disposed at a permitted hazardous waste disposal facility pursuant to 10 CSR 25.
- (b) Non-hazardous sludge that is disposed on site or that is exempted under 10 CSR 80 must obtain applicable permits under 10 CSR 20-6.015 and 10 CSR 20-6.200.
- (c) Each effluent monitoring report shall also specify the date any sludge is removed from the facility, who removed the sludge and the number of gallons or quantity of sludge removed. The final disposal location shall be reported, including the name of the disposal facility, the solid waste or hazardous waste disposal permit number, and date of permit issuance.
- (d) This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Act.



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL QUALITY

**MONTHLY MONITORING RECORD FOR WASTEWATER TREATMENT FACILITIES**

NAME OF FACILITY		LOCATION	REGION
FOR THE MONTH OF 19__	PERMIT NUMBER	OUTFALL NUMBER	TYPE TREATMENT FACILITY

**NOTE: SEE INSTRUCTIONS ON REVERSE SIDE OF THIS FORM**

DATE	INFLUENT							EFFLUENT									
	MGD FLOW INF. OR EFF.	GPD <input type="checkbox"/>	PH UNITS	BOD mg/l	SUS. SOLIDS mg/l	TEMP. °F - °C	PH UNITS	BOD mg/l	SUS. SOLIDS mg/l	OTHER	OTHER	OTHER	OTHER	RAIN	WEATHER	TIME	
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STANDARD CONDITIONS FOR NPDES PERMITS  
ISSUED BY  
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION  
Revised  
October 1, 1980

**PART I — GENERAL CONDITIONS**  
**SECTION A — MONITORING AND REPORTING**

**1. Representative Sampling**

A. Samples and measurements taken as required herein shall be representative of the nature and volume, respectively, of the monitored discharge. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

B. Monitoring results shall be recorded and reported on forms provided by the Department, postmarked no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the respective Department Regional Office, the Regional Office address is indicated in the cover letter transmitting the permit.

**2. Schedule of Compliance**

No later than fourteen (14) calendar days following each date identified in the "Schedule of Compliance", the permittee shall submit to the respective Department Regional Office as required therein, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements, or if there are no more scheduled requirements, when such noncompliance will be corrected. The Regional Office address is indicated in the cover letter transmitting the permit.

**3. Definitions**

Definitions as set forth in the Missouri Clean Water Law and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein.

**4. Test Procedures**

Test procedures for the analysis of pollutants shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7.015.

**5. Recording of Results**

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

- (i) The date, exact place, and time of sampling or measurements;
- (ii) The individual(s) who performed the sampling or measurements;
- (iii) The date(s) analyses were performed;
- (iv) The individual(s) who performed the analyses;
- (v) The analytical techniques or methods used; and
- (vi) The results of such analyses.

B. The Federal 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.

C. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

**6. Additional Monitoring by Permittee**

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

**7. Records Retention**

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 request of the Department at any time.

**SECTION B — MANAGEMENT REQUIREMENTS**

**1. Change in Discharge**

A. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not authorized by this permit or of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

B. Any facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants shall be reported by submission of a new NPDES application at least sixty (60) days before such changes, or, if they will not violate the effluent limitations specified in this permit, by notice to the Department at least thirty (30) days before such changes.

**2. Noncompliance Notification**

A. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such condition:

- (i) A description of the discharge and cause of noncompliance, and
- (ii) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

B. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally 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 Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

**3. Facilities Operation**

Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions. Operators or supervisors of operations at publicly owned or publicly regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9.020(2) and any other applicable state law or regulation. Operators of other wastewater treatment facilities, water contaminant source or point sources, shall, upon request by the department, demonstrate that wastewater treatment equipment and facilities are effectively operated and maintained by competent personnel.

**4. Adverse Impact**

The permittee shall take all necessary steps to minimize any adverse impact to waters of the state resulting from non-compliance with any effluent limitations specified in this permit or set forth in the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.