



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Lazarus Gov.
Center

RE: **FINAL PERMIT TO INSTALL MODIFICATION** CERTIFIED MAIL
TRUMBULL COUNTY
Application No: 02-07678

DATE: 6/4/2002

Niles Power Plant
Steven Brown
1047 Belmont Ave
Niles, OH 44446

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

NEDO



Permit To Install
Terms and Conditions

Issue Date: 6/4/2002
Effective Date: 6/4/2002

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 02-07678

Application Number: 02-07678
APS Premise Number: 0278060023
Permit Fee: \$0
Name of Facility: Niles Power Plant Brown
Person to Contact: Steven Brown
Address: 1047 Belmont Ave
Niles, OH 44446

Location of proposed air contaminant source(s) [emissions unit(s)]:
1047 Blemont Ave
Weathersfield Twp, OHIO

Description of modification:
MODIFICATION OF BOILER #1 BY INSTALLING A NOZZLE TO BURN ON-SPECIFICATION WASTE OIL AT MAX RATE OF 360 GALLONS/HOUR. Modified to include updated AP-42 emission factors for waste oil burning.

Date of Issuance: January 26, 1994

Effective Date: January 26, 1994

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Niles Power Plant

Facility ID: **0278060023**

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Modification Issued: 6/4/2002

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

PERMIT TO OPERATE APPLICATION AND OPERATION AFTER COMPLETION OF CONSTRUCTION

If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Niles Power Plant** located in **TRUMBULL** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
B001	Modification to Boiler No. 1 by installing a nozzle to burn on-specification waste oil. Modified version.	*	3745-31-05 3745-17-07 3745-17-10 3745-18-84 3745-15-07	Waste oil to meet the specifications listed in Additional Special Term & Condition #9; Emission limits for cofiring coal and waste oil: TSP: 0.10 lb/MMBTU; SO ₂ : 5.70 lbs/MMBTU; NO _x : 1.65 lbs/MMBTU; CO: 0.027 lb/MMBTU; VOC: 6.11 lbs/hr.

* BAT is compliance with applicable OAC rules and specified allowable emission rates, the waste oil specification and allowable usage rates, recordkeeping; see Additional Special Terms and Conditions.

SUMMARY

Niles Power Plant
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TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

TABLE I: ACTUAL EMISSIONS INCREASE/DECREASE DUE TO WASTE OIL COMBUSTION IN B001

<u>Pollutant</u>	<u>Tons/Year</u>
TSP	0.059 (decrease)
SO ₂	64.16 (decrease)
NO _x	22.50 (decrease)
CO	0.23 (increase)
VOC	0.94 (increase)

* Based on burning a maximum of 300,000 gallons of waste oil per year instead of an equivalent amount (in BTU) of coal.

TABLE II: MAXIMUM POTENTIAL EMISSIONS BURNING COAL OR BURNING COAL AND WASTE OIL IN B001

<u>Pollutant</u>	<u>Tons/Year *</u>
TSP*	537.4
SO ₂ **	30,633.2
NO _x ***	8,913.3
CO***	144.8
VOC***	17.8

* Based on 0.1 lb/MMBTU heat input

** Based on 5.70 lbs/MMBTU heat input

*** Based on emission factors from AP-42, Table 1.1-1

This permit does not allow a significant increase in allowable emissions.

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

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MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **OEPA Northeast District Office - DAPC, 2110 East Aurora Road, Twinsburg, Ohio 44087.**

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Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

1. PTI #02-7678 is for the modification of Boiler No. 1 at the Niles Power Plant (source B001) to allow for the intermittent burning of on-specification waste oil. An oil nozzle will be installed into one of the cyclone burners. Source B001 is a cyclone coal-fired boiler with a maximum heat input of 1227 MMBTU/hr. This modification shall not increase the maximum heat input to the boiler.
2. During the cofiring of coal and waste oil, the emissions from this source shall not exceed the following:
 - A. 0.1 pound of particulate matter per million BTU actual heat input;
 - B. 5.70 pounds of sulfur dioxide per million BTU actual heat input.
 - C. 1.65 pounds of nitrogen oxides per million BTU actual heat input.
 - D. 0.027 pound of carbon monoxide per million BTU actual heat input; and
 - E. 6.11 pounds of Volatile Organic Compounds (VOC) per hour.

(The allowable emission rate for nitrogen oxides, carbon monoxide and volatile organic compounds is based on AP-42 emission factors.)
3. Waste oil burned in the nozzle will be used to produce steam for the generation of electricity. Waste oil shall not be burned during light off periods, boiler start ups and boiler shutdowns. Waste oil shall not be fed to the boiler until it is operating at normal operating temperatures.
4. The maximum amount of oil fired in the nozzle shall be 360 gallons per hour and 300,000 gallons per rolling twelve month period.
5. Ohio Edison shall maintain monthly records for source B001 which list the following information:
 - A. The quantity of waste oil burned;

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- B. The rolling twelve month total of waste oil burned;
- C. The hours of waste oil burning operations.

These records shall be maintained at the facility for a period of three years.

6. Waste oil burned in the nozzle shall be limited to insulating and lubricating on-specification waste oil used in the generation and distribution of electricity.
7. In addition to a maximum firing rate of 360 gallons per hour, the actual heat input from the waste oil shall not exceed 5 percent of the actual total heat input to the boiler.
8. In accordance with Ohio Administrative Code (OAC) rule 3745-31-05 (A) (2), this facility shall comply with all applicable laws as defined in OAC Rule 3745-31-01 (F). Therefore, this air PTI cannot exempt Ohio Edison Co. for current or future regulations regarding the disposal of waste or used oil.
9. All waste oil burned in B001 shall meet the following specifications:

Contaminant/Property	Permit Allowable Concentrations
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
Lead	100 ppm, maximum
Mercury	1 ppm, maximum
Polychlorinated biphenyls	50 ppm, maximum
Total halogens	1,000 ppm, maximum
Flash point	100 degrees F, minimum
Heat Content	130,000 BTU/gallon minimum
Sulfur	1.3% wt. maximum

10. Prior to receiving a shipment of waste oil at the Niles facility, Ohio Edison shall receive a chemical analysis from the supplier. The analysis shall identify the name and address of the supplier, the supplier's U.S. EPA identification number and, at a minimum, include:
 - A. The date of shipment or delivery;
 - B. Quantity of used oil received;
 - C. The flash point of the used oil;
 - D. The arsenic content;
 - E. The cadmium content;

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- F. The chromium content;
- G. The lead content;
- H. The PCB content;
- I. The total halogen content;
- J. The mercury content; and
- K. The heat content;
- L. The sulfur content.

Copies of any oil analyses and other records required by this PTI shall be maintained for a minimum of three years and shall be made available to representatives of the Ohio EPA during business hours for review.

11. The Ohio Edison Company shall conduct or have performed an analysis of a sample of waste oil from any waste oil storage tank located at the Niles Facility no less frequently than annually. This analysis shall contain the parameters listed in term and condition #9.
12. Any representative of the Ohio EPA may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any waste oil shipment received by this facility or any waste oil storage tank located at the Niles facility, or of any sample drawn at the boiler (B001) employing waste oil as fuel.
13. Ohio Edison Co. shall notify the United States Environmental Protection Agency and the Ohio EPA if waste oil being burned exceeds the oil specifications contained in this permit. An exceedance would be considered a violation of OAC Rule 3745-31-02.
14. At all times during burning waste oil, the Wheelabrator-Fyre electrostatic precipitator shall be in operation and source B001 shall meet the opacity limit specified in OAC Rule 3745-17-07.
15. Waste oil burned in source B001 at all times shall be on-specification used oil in accordance with definitions in 40 CFR Part 266.40 and OAC Rule 3745-58-50.