



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

IFF Chemical Holdings Inc.
2051 North Lane Avenue
Jacksonville, Florida 32254

Air Permit No. 0310071-016-AC
Permit Expires: 02/06/2016

Authorized Representative:
Mr. Prasad Balakrishnan, Site Manager

Air Construction Permit
Boiler No. 1 On Spec Used Oil

This is the final air construction permit, which authorizes the firing of on specification used oil in the No. 1 Boiler. The proposed change will be implemented at IFF Chemical Holdings Inc., which is a non-SOCMI (Synthetic Organic Chemical Manufacturing Industry) plant (Standard Industrial Classification No. 2869). The facility is located in Duval County at 2051 North Lane Avenue in Jacksonville, Florida. The UTM coordinates are Zone 17, 427.7 km East, and 3357.6 km North. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections.

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

AIR CONSTRUCTION PERMIT

Executed in Jacksonville, Florida

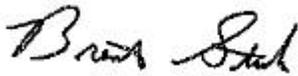


Richard S. Rachal III, P.G.
Permitting Program Administrator

FILING AND ACKNOWLEDGEMENT & CERTIFICATE OF SERVICE

Filed on this date pursuant to § 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. The undersigned hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) and all copies were sent before the close of business on February 6, 2015, to the listed persons.

Prasad Balakrishnan, Site Manager, IFF Chemical Holdings Inc. br.prasad@iff.com
Kennard F. Kosky, P.E., Golder Associates Inc. kkosky@golder.com
Roger Chubin, IFF Chemical Holdings Inc. roger.chubin@iff.com



(Clerk)

02/06/2015
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

Existing Facility

The facility is categorized under Standard Industrial Classification Code No. 2869 (Industrial Organic Chemicals) and consists of a non-SOCMI (Synthetic Organic Chemical Manufacturing Industry) plant. The non-SOCMI plant consists of a crude sulfate turpentine processing facility that uses the crude sulfate turpentine (CST) as a feedstock to produce variety of products which might include pinenes, polymer additives, flavorings, fragrances, pine oil, and oil of turpentine. The facility also consists of a hydrogen chloride gas production plant, and three steam boilers.

Steam Boilers: No.2 & No.3 Boilers are two nearly identical 77.5 million BTU per hour steam generation boilers constructed in 1974 and 1978, respectively. These boilers are used to generate steam for use throughout the plant and also incinerate total reduced sulfur gases obtained from the vapor collection system, as required under local air requirements. Boilers #2 and #3 primarily burn natural gas and process-derived fuels, but are also allowed to burn #2-#4 Distillate Fuel Oils, and on-specification used oil. Boiler #1 is a 51 million BTU per hour steam generation boiler, constructed in September 1998, which is equipped with a packed scrubber to control HCl emissions. This boiler is also used to generate steam for use throughout the plant and is designed to burn natural gas, process-derived fuels, #2-#4 Distillate Fuel Oils, and Residual Process Derived Fuel (RPDF). The No. 1 boiler is also equipped with a pH continuous monitoring system (CMS) to be used so that the pH of the scrubbing medium can be kept at or above 7.3 to assure HCl compliance. These boilers are regulated by Rule 62-296.702 or 406, F.A.C. – for Fossil Fuel Fired Steam Generators. The boilers are also used as the control for the TRS emissions from the vapor recovery system, therefore subject to TRS & VOCs limit of Jacksonville Environmental Protection Board (JEPB) Rule 5 - Control of TRS and VOC Emissions from Crude Sulfate Turpentine Processing Facilities.

Crude Sulfate Turpentine (CST) Processing Facilities: The crude sulfate turpentine processing facility uses the crude sulfate turpentine (CST) as a feedstock to produce variety of products which might include pinenes, polymer additives, flavorings, fragrances, pine oil, and oil of turpentine. Crude sulfate turpentine (CST) is a volatile amber liquid that is generated from kraft pulp mill. It is a mixture of α - and β - pinene (approximately 30 and 60% respectively) and other monoterpenes of the general formula $C_{10}H_{16}$ and various impurities such as small quantities of unpleasant-smelling sulphurous compounds (e.g. methyl mercaptan and dimethyl sulphide) and inorganics. The facility consists of a Vapor Collection System (VCS) collecting the vapors from various process equipments, and the collected vapors are incinerated in #2 Boiler and/or #3 Boiler. This unit is regulated by Jacksonville Environmental Protection Board (JEPB) Rule 5 –Control of TRS and VOC Emissions from Crude Sulfate Turpentine Processing Facilities.

Based on the construction permit application received November 5, 2014, this facility is not a major source of hazardous air pollutants (HAPs).

SECTION 1. GENERAL INFORMATION

Proposed Project

This project is for the authorization of the firing of on spec used oil in the No. 1 Boiler. This project will affect the following **emissions units**:

Facility ID No. 0310071	
ID No.	Emission Unit Description
037	No. 1 Boiler – steam generator

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C. and Rule 2.501, JEPB.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C. and Rule 2.401, JEPB

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority & Compliance Authority: The permitting authority for this project is the Florida Department of Environmental Protection (Department), Northeast District Office, Waste and Air Resource Management, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office, Waste and Air Resource Management Program.

The compliance authority for this project is the Florida Department of Environmental Protection (Department), Northeast District Office, Compliance Assurance, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256. All documents related to compliance for an emissions unit shall be submitted to the Northeast District Office, Compliance Assurance.

The Permitting Authority and Compliance Authority phone number is 904-256-1700.

2. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions; and
 - d. Appendix D. Common Testing Requirements.
 - e. Appendix BACT, BACT Determination updated February 6, 2015
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.; Rule 2.201, JEPB]
5. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.; Rule 2.301, JEPB, and Rule 2.401, JEPB]
6. Source Obligation:
 - (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
 - (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation)

SECTION 2. ADMINISTRATIVE REQUIREMENTS

solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C., and Rule 2.401, JEPB]

7. Relation to Other Permits: The conditions of this permit supplements all other previously issued air construction and operation permits for these emissions units. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The Permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, and the like.

[Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Modification of Permit No. 0310071-008-AC

The following permit conditions are revised as indicated. **Strikethrough** is used to denote the deletion of text. **Double-underlines** are used to denote the addition of text. All changes are emphasized with **yellow highlight**.

Permit Being Modified: Permit No. 0310071-008-AC

Affected Emissions Unit: EU 037

Specific Condition No. 3. is hereby revised as follows:

3. Permitted Capacity and Methods of Operation:

The heat input rate and methods of operation are stated below:

Alternative Method	Fuel Options[†]	Maximum Heat Input Rate	Maximum Fuel Rate
1	Natural Gas	51 MMBtu/hr	46,360 ft ³ /hr ^{2,3}
2	No. 2 fuel oil	51 MMBtu/hr	375 gal/hr ^{3,4}
3	Distilled Process Derived Fuel (DPDF)	51 MMBtu/hr	410 gal/hr ^{4,5} , 18.0 MMlb/yr
4	Residue Process Derived Fuel (RPDF) ^{1,2}	51 MMBtu/hr	362 gal/hr ^{5,6} , 3.0 MMlb/yr
5	<u>On Spec Used Oil</u>	<u>51 MMBtu/hr</u>	<u>---</u>

[†] ~~On specification used oil shall not be burned in this boiler.~~

^{1,2} The firing of RPDF as the only fuel is prohibited. RPDF shall only be fired when blended with DPDF.

^{2,3} Based on 1,100 Btu/ft³.

^{3,4} Based on 136,000 Btu/gal.

^{4,5} Based on 7.48 lb/gal and 16,626 Btu/lb.

^{5,6} Based on 7.59 lb/gal and 18,529 Btu/lb.

The following Specific Conditions are hereby added as follows:

14. On-Specification Used Oil Usage. The burning of on-spec used oil shall not exceed 2000 gallons/year for all # 1, # 2 and # 3 boilers combined. The used oil shall meet the requirements described in Specific Conditions 15 through 17.

15. The on-specification used oil fired shall not exceed 2000 gallons burned per year at this facility and shall be blended with other permitted liquid fuels. The on-spec used oil limits listed below are the provisions of 40 CFR 279 & 761:

<u>ON-SPEC USED OIL SPECIFICATIONS</u>	
<u>Constituent/Property</u>	<u>Allowable Level</u>
<u>Arsenic</u>	<u>5 ppm maximum</u>
<u>Cadmium</u>	<u>2 ppm maximum</u>
<u>Chromium</u>	<u>10 ppm maximum</u>
<u>Lead</u>	<u>100 ppm maximum</u>
<u>Total Halogens</u>	<u>1,000 ppm maximum</u>
<u>Flash Point</u>	<u>100°F minimum</u>

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Modification of Permit No. 0310071-008-AC

16. On-specification used oil may be fired as follows:

1. At any time provided the maximum concentration of PCBs shall be less than 2 ppm and whether generated on or off-site. The analysis and recordkeeping requirements apply to each amount prior to blending.
2. Only during normal operation temperature and not during startup or shutdown if the maximum concentration of PCBs is ≥ 2 but < 50 ppm.

[40 CFR 761]

17. Approved EPA, DEP or ASTM test methods shall be used to document that each batch of on-specification used oil complies with the above limits. All of these data shall be retained for inspection, submitted to the Department on request and reported as required in the AOR (Annual Operating Report) by each 04/01.

[Rule 62-210.370(3), F.A.C.]