



Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE

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

Air Permit No. 0310071-019-AC
Permit Expires: June 13, 2018
Minor Air Construction Permit

Authorized Representative:
Thomas Rollins, Plant Manager

Jacksonville Site
(EU041) Iso-E Production
increase and steam input
increases over all three boilers

PROJECT

This is the final air construction permit, which authorizes (EU041) Iso-E Super (a fragrance product) production increase from the current level of 4,200 tons/year (TPY) to 5,200 TPY; and steam input increase of 2,685,000 lb/year over all three boilers (EU003) Boiler No. 2, (EU014) Boiler No. 3, and (EU037) Boiler No. 1. The proposed project will also automate the existing distillation column, and add new holding tanks to facilitate the Iso-E production increase. The proposed work will be conducted at the existing Jacksonville Site, which is an Industrial Organic Chemicals and consists of a non-SOCMI (Synthetic Organic Chemical Manufacturing Industry) (Standard Industrial Classification No. 2869). This facility is located at 2051 North Lane Avenue, Jacksonville, Duval County, Florida; UTM Coordinates: Zone 17, 427.7 km East and 3357.6 km North; Latitude: 30° 20' 52" North and Longitude: 81° 45' 07" West.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and 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. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

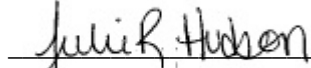
This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the 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.

FINAL PERMIT

Executed in Jacksonville, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Julie R. Hudson
Environmental Manager
Permitting Program

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

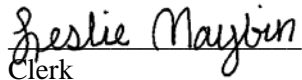
Thomas Rollins, Plant Manager - IFF Chemical Holdings, Inc. (Thomas.rollins@iff.com)

Richard Frain, EHS Manager- International Flavors & Fragrances Inc. (Richard.Frain@iff.com)

Kennard Kosky, P.E. - Golder Associates Inc. (kkosky@golder.com)

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

June 13, 2017

Date

SECTION 1. GENERAL INFORMATION (FINAL)

FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

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.

Facility ID No. 0310071	
ID No.	Emission Unit Description
003	Boiler No. 2
014	Boiler No. 3
037	Boiler No. 1
---	Crude Sulfate Turpentine (CST) Processing Facilities. <i>Unregulated Emissions Units and Activities (as stated in the Title V Operation Permit)</i>

PROPOSED PROJECT

- Air construction permit, which authorizes (EU041) Iso-E Super (a fragrance product) production increase from the current level of 4,200 tons/year (TPY) to 5,200 TPY;
- Steam input increase over all three boilers (EU003) Boiler No. 2, (EU014) Boiler No. 3, and (EU037) Boiler No. 1.
- The proposed project will also automate the existing distillation column, and add new holding tanks to facilitate the Iso-E production increase.

This project will change the following emissions units.

Facility ID No. 0310071	
ID No.	Emission Unit Description
003	Boiler No. 2
014	Boiler No. 3
037	Boiler No. 1
---	Crude Sulfate Turpentine (CST) Processing Facilities. <i>Unregulated Emissions Units and Activities (as stated in the Title V Operation Permit)</i>

This project will add the following emissions units.

ID No.	Emission Unit Description
041	Iso-E Production Process

SECTION 1. GENERAL INFORMATION (FINAL)

FACILITY REGULATORY CLASSIFICATION

- The facility **is not** a major source of hazardous air pollutants (HAP).
- The facility **does not operate** 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 62-213, F.A.C.
- The facility **is** a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

1. Permitting Authority: The permitting authority for this project is the Northeast District Office of the Department of Environmental Protection (Department). The Northeast District Office mailing address is 8800 Baymeadows Way W., Suite 100, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 904/256-1700.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office, Compliance Assurance at: 8800 Baymeadows Way W., Suite 100, Jacksonville, Florida 32256. The Compliance Authority's telephone number is 904/256-1700.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
4. 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.
5. 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.]
6. 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.]
7. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]
8. Source Obligation:
 - a. Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

- 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) 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.
- c. 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 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.]

- 9. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS (FINAL)

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
003 014	No. 2 Boiler - Steam Generator. No. 3 Boiler - Steam Generator. These boilers are steam generators and used to incinerate vapors from the Vapor Collection System (VCS). <ul style="list-style-type: none">▪ Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators.▪ 40 CFR 63, Subpart JJJJJ- National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, and 40 CFR 63, Subpart A – General Provisions.
037	No. 1 Boiler - Steam Generator. (Manufacturer: Indeck/Volcano, Model: D2-40) is a steam generator with a packed scrubber which has a pH CMS (Continuous Monitoring System) for controlling HCl and SO ₂ emissions. The boiler also incorporates a Peabody low-NOx burner. <ul style="list-style-type: none">▪ NSPS – 40 CFR 60, Subpart Dc- Standards of Performance for Small Industrial- Commercial- Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and▪ NSPS – 40 CFR 60, Subpart A – General Provisions, and▪ Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less Than 250 Million Btu Per Hour Heat Input, New and Existing Emissions Units, and▪ Best Available Control Technology (BACT) Determination, dated 6/17/2002, updated February 6, 2015 under Permit No. 0310071-016-AC.▪ 40 CFR 63, Subpart JJJJJ- National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, and 40 CFR 63, Subpart A – General Provisions.
041	Iso-E Production Process.

PREVIOUS PERMITS

1. **Existing Permits:** This permit supplements all existing valid air permits. Unless otherwise specified, the permittee shall continue to comply with all applicable conditions from valid air construction and operation permits.

[Rule 62-4.070(3), F.A.C.]

EQUIPMENT

2. **Iso-E Equipment:** The permittee is authorized to operate and install the following equipment on the Iso-E production line:
 - Increase the production of Iso-E Super (a fragrance product) from 4,200 TPY to 5,200 TPY;
 - Automate the existing distillation column;

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS (FINAL)

- Piping, containment walls, junction box, and transfer manifolds, which will be constructed to facilitate the Iso-E production increase; and
- New holding Tank Nos. 468, 470, 472, 473, and 475.

{Permitting Note: The storage tanks have a capacity greater than or equal to 151 cubic meters (m³) with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or have a capacity between 75 m³ and 151 m³ with a maximum true vapor pressure less than 15.0 kPa. Therefore, the tanks are not subject to any unit-specific limitation or requirement in NSPS Subpart Kb of 40 CFR 60.}

[Design, Application No. 0310071-019-AC]

3. **Boiler Nos. 1 – 3:** This permit authorizes a total steam input increase of 2,685,000 lb/year (equivalent to 3,774.6 MMBtu/hour) over all three boilers (EU003, EU014 and EU037) for distillation Column A95 to accommodate the higher Iso-E production. The maximum heat input capacity of the boilers will remain unchanged.

[Application No. 0310071-019-AC; and Rule 62-210.200(PTE), F.A.C.]

PERFORMANCE RESTRICTIONS

4. **Hours of Operation:** The hours of operation of the Iso-E production line and the existing boilers are not limited (8,760 hours/year).

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

5. **30-Day Trial:** The facility is required to conduct a 30-day sulfur ratio trial, during which time the facility shall also monitor the Iso-E product stream throughputs. The 30-day trial shall occur within the first 90-day operating period after the Iso-E product increase to ensure a normal operating period and a representative Iso-E product throughput and sulfur content compared to calendar year 2016 sulfur data. The 30-day trial does not have to be consecutive days. The trial may consist of several intervals so long as the total number of days during all intervals does not exceed 30-days.

[Application No. 0310071-019-AC; and Rule 62-4.070(3), F.A.C.]

6. **Sulfur Sampling:** The sulfur content sampling location shall be prior to the Terpenes and Aromatics Plants streams entering the Vapor Collection System line and then Boiler No. 2 (EU003) or Boiler No. 3. (EU014). The facility shall take a sample twice daily for the product stream (myrcene, Iso-E/Iso-G) for analysis to determine the sulfur concentration in parts per million by volume (ppmv) for obtaining a daily “average” during the 30-day trial. The concentration values shall be converted to a mass basis based on process stream throughput measure per **Specific Condition 5** of this subsection. The permittee shall ensure that the locations for the sampling of each feed and product stream will be representative for obtaining a daily “average” sulfur content. The daily results shall be utilized for determining the total 30-day sulfur (S) ratios in the different product streams such that myrcene + Iso-E + Iso-G.

[Application No. 0310071-019-AC and Rule 62-4.070(3), F.A.C.]

REPORTS

7. **Summary Report:** Within 30 days after the completion of the 30-day sulfur ratio trial, the facility shall provide a summary report to the Department (Christopher.Kirts@dep.state.fl.us) specifying the average Iso-E sulfur content on a daily and weekly basis and during the entire 30-day trial. In addition, the report shall contain the average sulfur ratio of each process stream on a daily and weekly basis and during the entire 30-day trial. If varying Iso-E throughput or sulfur content occurs compared to the calendar year 2016 levels, the facility shall attempt to account for the change in the summary report to be provided to the Department such that an accurate evaluation of the change in sulfur ratio associated with the Iso-E production line can be determined.

[Application No. 0310071-019-AC and Rule 62-4.070(3), F.A.C.]

8. **Department Review:** The Department shall review the submitted summary report required by **Specific Condition 7** of this subsection to determine if there is reasonable assurance that a significant increase (≥ 40 TPY) in SO₂ emissions will **not** occur due to the installation of the Iso-E production line. If the Department determines that no significant increase will occur, the permittee may continue to operate the Iso-E production line with its hours of operation unrestricted.

[Rule 62-4.070(3), F.A.C.]

9. **Permit Applications:** If the Department determines, based on the review required by **Specific Condition 8** of this subsection, that a significant increase in SO₂ emissions will occur, the applicant shall submit a PSD permit application to the Department no later than 90 days after the permittee is notified of the PSD determination (see Source Obligation **Specific Condition No. 8 of Section 2**). If the permittee so chooses, they can submit a permit application within 90 days of the PSD determination that would restrict operation of the Iso-E production such that there is reasonable assurance that a significant increase in SO₂ emissions will not occur.

[Rules 62-212.400(12) and 62-4.070(3), F.A.C.]

10. **Emissions Unit Determination:** If, after the sulfur sampling process proves that no emissions of SO₂ exceeds the (≥ 40 TPY Prevention of Significant Deterioration Significant Emissions Rate), then the Iso-E Production Process will be considered an Unregulated Emissions Unit.

[Rule 62-4.070(3), F.A.C.]

11. **Commencement of Construction and Operation:** After the automation of the existing distillation column; steam input increase; Iso-E production increase; and construction of the new holding tanks for **EU041** are installed/ initiated, the permittee shall submit to the Air Compliance Authority of this Office written notifications of the date of commencement of construction and operation of **EU041**. These notifications shall be submitted or postmarked to Christopher.Kirts@dep.state.fl.us within as many days prior to the date of construction and operation commencement as practical, but no later than thirty (30) business day following commencement of construction and operation.

[Rule 62-4.070(3), F.A.C.]