

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Thomson Consumer Electronics
3301 South Adams Street
Marion, Indiana 46952**

is hereby authorized to construct

the replacement of base plant blackener #3 with a new blackener #3, increasing
excelene gas usage from 10,000 cubic feet per hour to 13,000 cubic feet per hour, with
the maximum CO content of the gas decreasing from 3.5% to 2.5%, exhausting to
stacks 26B-12 and 26B-13.

This permit is issued to the above mentioned company (herein known as the Permittee) under
the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-053-8981-00020	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

- (e) The Permittee has submitted their Part 70 permit on November 18, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.
7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
- (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
- (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
- (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
- (a) In the event that ownership of this blackener operation is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
- (a) Violation of any conditions of this permit.
 - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
 - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
 - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
 - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM or other public official having jurisdiction.

PSD Minor Source Limit

7. That the CO content of the excelene gas stream from the excelene generators to blackener #3 shall be limited to 2.5 percent. This production limitation is equivalent to CO emissions of 6.5 tons per year. This limit, combined with the limit placed on the blackener process in permit CP 053-6884 of 89 tons per year, will limit the CO emissions from the blackener process modifications to less than 99 tons per year. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

Annual Emission Reporting

8. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Data Support Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

Opacity Limitations

9. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-

3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

Reporting Requirements

10. That a log of information necessary to document compliance with operation permit condition number 7 shall be maintained. These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAM).

- (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within thirty (30) calendar days after the end of the quarter being reported in the format attached. These reports shall include the weekly CO content of the excelene gas stream from the excelene generators to blackener #3. The CO content of the gas stream shall be measured and recorded at least once per week with an infrared scan device.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:

- (i) Postmarked on or before the date it is due; or

- (ii) Delivered by any other method if it is received and stamped by IDEM, OAM on or before the date it is due.

- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exeedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
- (e) The first report shall cover the period commencing the postmarked submission date of the Affidavit of Construction.

Open Burning

11. That the permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

Emergency Reduction Plans

12. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within 180 calendar days from the issuance date of this permit.

(c) If the ERP is disapproved by IDEM, OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permittee does not submit an approvable ERP, IDEM, OAM shall supply such a plan.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAM that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3]

**Indiana Department of Environmental Management
Office of Air Management
Compliance Data Section
Monthly Report**

Company Name: Thomson Consumer Electronics
Location: 3301 South Adams Street, Marion, Indiana 46952
Permit No.: CP 053-8981-00020
Source: blackener #3
Pollutant: CO
Limit: 2.5 percent (%) CO in the excelene gas stream

Month: _____ **Year:** _____

Week	CO content of excelene gas to blackener #3 (%)

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	Thomson Consumer Electronics
Source Location:	3301 South Adams Street, Marion, Indiana 46952
County:	Grant
Construction Permit No.:	CP-053-8981-00020
SIC Code:	3671
Permit Reviewer:	Nisha Sizemore

The Office of Air Management (OAM) has reviewed an application from Thomson Consumer Electronics relating to the construction and operation of an expansion to the blackener process, consisting of the following modifications:

the replacement of base plant blackener #3 with a new blackener #3, increasing excelene gas usage from 10,000 cubic feet per hour to 13,000 cubic feet per hour, with the maximum CO content of the gas decreasing from 3.5% to 2.5%, exhausting to stacks 26B-12 and 26B-13.

Previously Issued Permit

This source was issued permit CP 053-6884 on April 14, 1997 for the expansion to base plant blackener #2. That permit limited CO emissions to 89 tons per year. In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the CO emissions from both expansions (blackener #2 and blackener #3) will need to be limited to 99 tons per year. The projects must be combined under one single PSD limit because the modifications occur within 18 months of each other and both projects involve the expansion of the base plant blackening process.

Other Permit Applications Currently Under Review

The OAM is also currently reviewing two other permit applications from Thomson Consumer Electronics. These include application number CP 053-8511 submitted on April 23, 1997 for the construction of very large screen television picture tube manufacturing facilities and application number CP 053-8592 submitted on May 15, 1997 for additional surface coating facilities. The OAM has determined that it is not necessary to combine these other two applications with this modification because the modifications proposed in the other two applications do not include any increase in the potential to emit carbon monoxide (CO). CO is the only criteria pollutant affected by this proposed modification. Therefore, combining the other two applications with this application would not have any affect on the PSD applicability for this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
26B-12	blackener #3	18	1.0	800	85
26B-13	blackener #3	18	1.0	800	85

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on September 16, 1997.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (1 page).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Potential Emissions (tons/year)
Particulate Matter (PM)	0.00
Particulate Matter (PM10)	0.00
Sulfur Dioxide (SO ₂)	0.00
Volatile Organic Compounds (VOC)	0.00
Carbon Monoxide (CO)	111
Nitrogen Oxides (NO _x)	0.00
Single Hazardous Air Pollutant (HAP)	0.00
Combination of HAPs	0.00

Allowable emissions (as defined in the Indiana Rule) of carbon monoxide (CO) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Grant County has been classified as attainment or unclassifiable for CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	36.7
PM10	36.7
SO ₂	241
VOC	263
CO	361
NO _x	216

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.
- (b) These emissions were based on permit 053-6884, plus the allowable PSD emissions from the modification permitted at that time.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	0.00	0.00	0.00	0.00	6.5	0.00
Modification to blackener #2 permitted by CP053-6884	0.00	0.00	0.00	0.00	89	0.00
Net Emissions	0.00	0.00	0.00	0.00	95.5	0.00
PSD or Offset Significant Level	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) The throughput of excelene gas to blackener #3 is limited to 13,000 cubic feet per hour with a maximum CO content of 2.8%. This is equivalent to limiting the potential to emit CO to less than 99 tons per year, therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-053-7202-00020) application on November 18, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.

There are no National Emissions Standards for Hazardous Air Pollutants (NESHAPs) applicable to this facility.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons per year of VOC, CO, SO₂, and NO_x. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to this rule, the CO content of the excelene gas stream from the excelene generators to the blackener #3 shall not exceed 2.5 percent. Compliance with this limit is necessary in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

This facility is not subject to this rule because the source is not a type as described in sections 1 through 3 of this rule. This source produces picture tubes for televisions.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

None of these listed air toxics will be emitted from this proposed construction.

Conclusion

The modification of blackener #3 will be subject to the conditions of the attached proposed Construction Permit No. CP-053-8981-00020.

Appendix A: Emissions Summary

Company Name: Thomson Consumer Electronics
Address City IN Zip: 3301 South Adams Street, Marion, IN 46952
CP: 053-8981
Plt ID: 053-00020
Reviewer: Nisha Sizemore

Expansion to Base Plant Blackener #3

Limit for Modification to Avoid PSD: 99 tons/yr of Carbon Monoxide (CO)

(Base Plant Blackener #3 future potential - Base Plant Blackener past actual)

An additional 3000 cubic feet per hour of Excelene gas will be required for the expansion

The gas is 2.5% CO = 0.00195 lb CO / cf gas

Base Plant Blackener #3 - Potential after Modification

Current Maximum gas usage rate: 10000 cf/hr

additional gas usage with expansion: 3000 cf/hr

Future maximum usage rate: 13000 cf/hr of excelene gas

13000 cf/hr x 0.00195 lb CO / cf gas x 8760 hr/yr x 1 ton / 2000 lbs = 111.03 tons/yr CO

Base Plant Blackener #3 - Past Actual Emissions

reported actual excelene gas usage for Sept 1995 through Sept 1996:

76,608,000 cf per year at 3.5% CO which = 0.00273 lb CO / cf gas

76608000 cf / yr x 0.00273 lb CO / cf gas x 1 ton/2000 lb : 104.57 tons/yr CO

Future Potential minus Past Actual

111.0 tons/yr CO

104.6 tons/yr CO

6.5 tons/yr CO =