Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

State of Florida
Department of Environmental Protection
Notice of Permit

In the matter of an
Application for Permit by:

DEP File No. AC 01-265409
PSD-FL-153A
Alachua County

Mr. Gary V. Bishop, Plant Manager
Metal Container Corporation
5909 Northwest 18th Drive
Gainesville, Florida 32606

Enclosed is Permit Number AC 01-265409 (PSD-FL-153A) for the modification of the Gainesville Lid Plant. The modification consists of a switch to a new sealant used to attach lids to aluminum cans. Allowable emissions of volatile organic compounds will be reduced to 319 tons per year (TPY) from present limit of 484 TPY by use of low volatility solvents, coatings, and sealants. The new sealant is less toxic and less is required due to a trend toward smaller lids. The facility is located in Gainesville, Alachua County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT** and all copies were mailed by certified mail before the close of business on 8-24-95 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

8-24-95
Date

Copies furnished to:
Robert Lanham, MCC
Pat Reynolds, NEDB
Robert Leetch, NED
Jeff Meling, P.E., ECT

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Gary V. Bishop, Plant Mgr
Metal Container Corp
5909-NW 18th Dr
Gainesville, Fl 32606

4a. Article Number
Z 392 979 028

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
8/26

5. Signature (Addressee)
X Gary Bishop

6. Signature (Agent)
X

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, December 1991 *U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Z 392 979 028

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
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UNITED STATES POSTAL SERVICE

PS Form **3800**, March 1993

Sent to Gary Bishop	
Street and No. Metal Container	
P.O., State and ZIP Code Gainesville, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	8-24-95

ACO1-265409
PSO-Fl-153A

Final Determination

Metal Container Corporation
Gainesville, Florida

Gainesville Lid Plant
Permit No. AC 01-265409
PSD-FL-153A

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

August 16, 1995

FINAL DETERMINATION

Metal Container Corporation's application for a permit to modify the Lid Center Plant at their facility in Gainesville, Alachua County, Florida has been reviewed by the Bureau of Air Regulation in Tallahassee.

The Technical Evaluation and Preliminary Determination for the permit to modify the Lid Center facility in Gainesville, Florida, was distributed on July 6, 1995. The Notice of the Intent to Issue was published in The Gainesville Sun on July 11, 1995. Copies of the evaluation were available for inspection at the Department's offices in Jacksonville, Gainesville and Tallahassee.

Comments regarding the Technical Evaluation and Preliminary Determination and Specific Conditions of the permit were submitted by Mr. Robert M. Lanham, P.E. Manager, Environmental Engineering of Metal Container Corporation. The Bureau has considered Mr. Lanham's comments and has agreed to the changes he proposed. Specific Conditions Nos. 5, 9 and 17 will be changed as follows:

DEP PERMIT NUMBER AC 01-265409, PSD-FL-153A.

SPECIFIC CONDITION No. 5:

FROM:

5. The permitted materials and utilization rates are as stated in the application. These rates include the following:

- A maximum annual production of 10.047 billion lids.
- A maximum annual usage of end sealant compound, tab lube, and clean up solvents of 168,027 gallons during any consecutive 12 month period.
- A maximum usage rate (all coatings and solvents) of 0.019 gallons/1000 lids.

TO:

5. The permitted materials and utilization rates are as stated in the application. These rates include the following:

- A maximum annual production of 10.049 billion lids.
- A maximum usage rate (all coatings and solvents) of 0.019 gallons/1000 lids.

SPECIFIC CONDITION No. 9:

FROM:

9. The permittee shall maintain a record of the clean up solvents used on a six month basis. A composite sample of the VOC content in the waste solvents shall be established every six months using Method 24 or 24A as contained in 40 CFR 60, and adopted by reference in Chapter 62-297, F.A.C.

TO:

9. The permittee shall maintain a record of the clean-up solvents used on a six month basis.

SPECIFIC CONDITION No. 17

FROM:

17. Pursuant to Rule 62-210.300(2), F.A.C., Air Operating Permits, the permittee shall be required to submit annual reports on the actual operation and emissions of the facility. Material balance reports are required to determine compliance with the emission limits in this permit and shall be sent to the Northeast District office to confirm emissions and update area-wide VOC emissions inventories. The quantity of lids processed per module shall be included in the report. At a minimum, this report shall also include VOC emission limits [lb/hr (monthly average)], [lb/day (monthly average)], [lb/month, (ton/yr)], manufacturer's certification of VOC content of coating, coating usage records, hours of operation, and test results.

TO:

17. Pursuant to Rule 62-210.300(2), F.A.C., Air Operating Permits, the permittee shall be required to submit annual reports on the actual operation and emissions of the facility. Material balance reports are required to determine compliance with the emission limits in this permit and shall be sent to the Northeast District office to confirm emissions and update area-wide VOC emissions inventories. **The quantity of lids processed by the facility shall be included in the report.** At a minimum, this report shall also include VOC emission limits [lb/hr (monthly average)], [lb/day (monthly average)], [lb/month, (ton/yr)], manufacturer's certification of VOC content of coating, coating usage records, hours of operation, and test results.

The final action of the Department is to issue construction permit AC01-265409 (PSD-Fl-153A) with the changes noted above.

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
Metal Container Corp.
4102 Main Street
Lakeland, FL 33801

Permit Number: AC01-265409
PSD-FL-153A
Expiration Date: July 30, 1996
County: Alachua
Latitude/Longitude: 29°42'5"
82°20'53"
Project: Lid Center Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.); Chapters 62-210 through 62-297 and 62-4, Florida Administrative Code (F.A.C.); and, 40 CFR 52.21 and 60. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

For the modification of the Lid Center (Modules 4 through 7) at the Metal Container Corp. facility in Gainesville, Alachua County, Florida. The UTM coordinates are Zone 17, 369.38 km and 3287.23 N.

The source shall be constructed/installed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application to Construct Air Pollution Sources, DEP Form 62-210.900(1), received on February 15, 1995.
2. Department's letter dated March 10, 1995.
3. Metal Container Corporation's letter dated March 20, 1995.
4. Department's letter dated May 9, 1995.
5. Metal Container Corporation's letter dated May 12, 1995.
6. Environmental Consulting & Technology's letter dated May 22, 1995.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;
b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of non-compliance; and,

b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes;

(X) Determination of Best Available Control Technology (BACT)
(X) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;

GENERAL CONDITIONS:

- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum VOC content of the coating and solvents used in this operation shall not exceed the following limits.

Material	lbs VOC/Gallon
End Sealant	3.5 (excluding water)
Tab Lube	6.0 (excluding water)
Mineral Spirits	6.32
Heptane	5.84

2. The ambient reference concentrations (ARC) levels for the following pollutants shall not be exceeded:

Pollutant	Ambient Reference Concentrations (ug/m^3) 8-hr	24-hr	Annual
n-hexane	1,760	419	200
toluene	1,880	448	400
benzene	30	7	0.12
odor	none objectionable		

3. The total permitted VOC emissions from coatings and organic solvents at this facility shall not exceed 78 lbs/hr and 319 tons/yr.

Operating Requirements

4. This facility is allowed to operate continuously (8760 hours per year).

SPECIFIC CONDITIONS:

5. The permitted materials and utilization rates are as stated in the application. These rates include the following:

- A maximum annual production of 10.049 billion lids.
- A maximum usage rate (all coatings and solvents) of 0.019 gallons/1000 lids.

6. Any other operating parameter established during compliance testing and/or inspection that will confirm the proper operation of this facility shall be included in the operating permit.

Compliance Determination

7. The permittee shall provide the Department with a determination of the VOC content of each coating using EPA Method 24 or 24A contained in 40 CFR 60, Appendix A. The enclosed Appendix B (EPA 450/3-84-019), if properly completed for each affected coating, may be submitted in lieu of the Method 24 or 24A tests. New coating or a similar coating supplied by a different manufacturer shall be tested for VOC content using EPA Method 24 and 24A or the above mentioned Appendix B prior to initial use in production. Each coating shall be tested after it is diluted with the maximum amount of solvent used by the permittee for production. The use of a different coating with a higher than permitted VOC content or BACT limit is not allowed. Prior written notification is required in the event that the VOC content of a coating (not included in the application) increases above that of the previous coating in use. Material Safety and Data Sheets shall be maintained for all materials that are used. Notification shall be provided to the Northeast District office and shall include EPA Method 24 or Appendix B test results on the VOC content of the proposed coating and solvent. Testing procedures shall be consistent with applicable provisions of Chapter 62-297.

8. Compliance with the ambient reference concentrations shall be demonstrated based on calculations certified by a Professional Engineer registered in Florida using actual operating conditions. Determination of the ambient concentration for chemical organic compounds shall be determined by Department approved dispersion modeling calculations. These calculations shall be available upon request by the Department.

9. The permittee shall maintain a record of the clean-up solvents used on a six month basis.

SPECIFIC CONDITIONS:

10. The permittee shall maintain accurate records of all coatings and solvents used at the facility for at least a two year period.

11. The permittee shall notify the Northeast District office in writing at least 15 days prior to any emissions testing performed by the permittee. The period prior to testing shall not exceed 180 days after construction is completed. Compliance test results shall be submitted to the Northeast District office no later than 45 days after the final test run.

12. When the Department, after investigation, has good reason (such as odor complaints, increased visible emissions, etc.) to believe that any applicable emission standard contained in Chapter 62-296, F.A.C., or in this permit is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of the tests to the Department.

Rule Requirements

13. This facility shall comply with all applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-4 and 62-210 through 297, Florida Administrative Code.

14. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state or local permitting requirements and regulations (Rule 62-210.300(1), F.A.C.).

15. According to Rule 62-296.320(1)(a, F.A.C., no person shall store, pump, handle, process, load, unload, or use in any process or installation volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Currently, there are no control strategies associated with this operation other than good operating practices to minimize pollutant emissions. At a minimum, the following procedures shall be followed to minimize pollutant emissions:

- Maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.,
- Where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, bath, etc., of VOC so that it can be covered when not in use;

SPECIFIC CONDITIONS:

- All fittings, valves, lines, etc., shall be properly maintained; and,
- All VOC spills shall be attended to immediately and the waste properly disposed of, recycled, etc.,

16. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to Rule 62-296.320(2), F.A.C.

17. Pursuant to Rule 62-210.300(2), F.A.C., Air Operating Permits, the permittee shall be required to submit annual reports on the actual operation and emissions of the facility. Material balance reports are required to determine compliance with the emission limits in this permit and shall be sent to the Northeast District office to confirm emissions and update area-wide VOC emissions inventories. The quantity of lids processed by the facility shall be included in the report. At a minimum, this report shall also include VOC emission limits [lb/hr (monthly average)], [lb/day (monthly average)], [lb/month, (ton/yr)], manufacturer's certification of VOC content of coating, coating usage records, hours of operation, and test results.

18. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).

19. An application for an operation permit or a Title V operation permit must be submitted to the Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the permittee shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (Rules 62-4.055 and 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For Virginia B. Wetherell, Secretary

Revised Best Available Control Technology (BACT) Determination
Metal Container Corporation
Alachua County

The applicant intends to modify an aluminum lid manufacturing facility in Gainesville, Florida by changing the hexane based end sealant compound with a heptane based compound. The modernization project accomplished in 1992 resulted in an increase in the facility's annual production capacity, from an existing 6.528 billion lids to 10.047 billion lids.

VOC emissions will be minimized through the use of low-solvent, high solids compounds.

In accordance with Rule 62-212.400(2)(f)(3) of the Florida Administrative Code (F.A.C.) a BACT review for volatile organic compounds (VOC) is required since the potential emissions increase exceeds the significant emission rate of 40 tons per year.

BACT Determination Requested by the Applicant:

The BACT determination requested by the applicant is based on the use of high solid/low VOC end sealant. The VOC content for the end sealant and other compounds proposed for use at the facility is given below:

Compound	VOC Content (weight fraction)
End Sealant	0.417
Tab Lube	0.945
Solvents	1.0

Date of Receipt of BACT Application:

February 15, 1995

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 62-212, Air Pollution, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

(a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of

Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).

(b) All scientific, engineering, and technical material and other information available to the Department.

(c) The emission limiting standards or BACT determinations of any other state.

(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Analysis:

A review of the BACT/LAER Clearinghouse indicates that BACT for lid manufacturing (total of two determinations) has been based on limiting the VOC content of the end sealant compound.

The first determination, made January 10, 1986, showed that BACT for a modified source was the use of an end sealant compound with a VOC content of 4.2 pounds/gallon minus water. The second, issued January 21, 1988, determined that BACT for a new source was the use of an end sealant compound with a VOC content of 3.7 pounds/gallon. These determinations are less stringent than that proposed by the applicant as being BACT for this project (VOC content equals 3.5 pounds/gallon). Originally, the BACT determination done in 1991 for this facility set a VOC limit of 3.2 pounds/gallon. Although this limit is being relaxed, it is important to note that the new end sealant compound proposed, DAREX SLC 4357NP-57.5, a heptane-based compound, will replace the compound currently in use, DAREX S9357 MHV, a hexane-based compound. Hexane compounds are considered hazardous air pollutants (HAPs). Therefore emissions of a HAP will be traded for those of a much less toxic, non-HAP.

In accordance with the "top-down" BACT procedure the applicant has evaluated two control technologies which would further reduce VOC emissions. The two technologies are:

1. The use of non-VOC (water-base) end sealant compounds.
2. Collection and destruction of VOC emissions through the use of an incinerator.

Both of these technologies were considered during the 1991 BACT review and were reconsidered in the present review. A summary of this review follows:

Water-Based End Sealant:

The applicant has indicated that there are both operational and technical difficulties associated with the use of water-based end sealant compound.

According to the applicant, water-based end sealant compound requires a longer curing time. In order to reduce the curing time, drying ovens must be added to drive off the water.

Additional equipment would be required if water-base sealant was used. Lid dryers, tankage, piping, instrumentation, and conveying equipment would be the minimum additional equipment required.

The applicant has indicated that the total levelized annual cost (operating plus amortized capital cost) to install and operate the additional equipment needed to utilize water-base end sealant compound would be approximately $1.43 million. When this cost is taken into consideration with the annual VOC reductions that would be realized by using water-base end sealant compound (251 tons per year) the cost per ton of controlling VOC would be $5,700.

This cost ($5,700/ton) is not representative of costs that have been previously justified as BACT and is judged not to be cost effective for this facility.

Incineration:

Incineration is a commonly used method to control the emissions of VOC from various processes that utilize VOC-containing compounds. Emission reductions are achieved through this method by capturing the VOC which are "flashed-off" during the manufacturing process and conveying them to an incinerator.

The applicant has stated that the lid manufacturing process does not lend itself to the capture of VOC due to the nature of the compounds used and the speed at which the ends pass through the lines. However, the applicant originally assumed that the largest reductions could be achieved by ducting the scrap cyclones (VOC from tab lube) and the end liner and balancers (VOC from end sealant) to the thermal oxidizer. As such it was conceptually estimated that 65% of the VOC from these materials can be captured and ducted to a thermal oxidizer with a 90% destruction efficiency.

Subsequent to the original proposal, the applicant obtained additional technical information that invalidated assumptions made in the conceptual design of the thermal oxidation system control alternative as proposed above.

The applicant has indicated that due to the fugitive nature of the end sealant compound (heavier than air) and the slow evaporation rate of the tab lube, the system, as proposed, will not capture an appreciable amount of VOC emissions. It is estimated that 80% of the end sealant compound emissions will occur after the lining operation as fugitive emissions.

According to the applicant, the only method to ensure capture of significant quantities of emissions for incineration would be to fully enclose each of the liners and associated conveyors and balancers. This would lead to a loss of production due to the operational and maintenance inefficiencies associated with the enclosure and equipment required for the thermal oxidation system.

Regarding tab lube VOC emissions, the applicant has performed several evaporation tests. Based on the extremely low vapor pressure, and the fact that the scrap has a 30 second residence time in the cyclone system, it has been concluded that capture and incineration of the tab lube emissions is not a technically feasible means of control. Tab lube emissions will be minimized by the use of pre-lubricated tab stock.

The applicant has indicated that the total levelized annual cost to install and operate the additional equipment needed to capture and incinerator VOC emissions would, assuming 95% destruction in the incinerator, be approximately over $1.57 million. When this cost is taken into consideration with the annual VOC reduction that would be realized by using the thermal oxidation system (95 tons per year), the cost per ton of controlling VOC would be over $16,500. This cost is not representative of costs that have been previously justified as BACT and is judged to be cost prohibitive for this facility.

Environmental Impact Analysis:

In addition to the bulk VOC control that could be achieved by using either water-based end sealant or thermal oxidation, such control would also reduce the amount of potential toxic emissions. The type and quantity of air toxics that are expected from the use of the proposed end sealant are given as follows:

Air Toxic	pounds/hr	tons/yr
n-hexane	0.2	0.8
n-heptane	33.8	138.9
cyclohexane	25.0	102.5
toluene	0.1	0.5
benzene	<0.001	<0.01

A review of the maximum impacts expected from these air toxics indicates that the use of the proposed end sealant, without additional control, results in ambient levels which are less than the Ambient Reference Concentrations.

BACT Determination by DEP:

The information presented by the applicant indicates that the use of high solid/low VOC end sealant still represents BACT for the proposed facility. Although the use of water-based end sealant would provide the greatest VOC control, the resulting cost to control VOC ($5,700/ton) is judged to be too costly. The next level of control (thermal oxidation) was judged to be even more expensive.

A comparison of the economics and technical viability of the alternate technologies, and review of recent BACT/LAER determinations, show that the use of high solids/low VOC end sealant compounds, and the use of pre-lubricated tab stock to minimize tab lube usage, is BACT for the proposed lid plant modernization.

Conclusion:

Based on the discussion presented in this analysis, BACT for the Metal Container Corporation is represented by controlling the solvent content of the end sealant not to exceed 3.5 pounds VOC per gallon of sealant excluding water and by using pre-lubricated tab stock to minimize tab lube usage.

Details of the Analysis may be Obtained by Contacting:

Administrator, New Source Review Section
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

August 18 1995
Date

Approved by:

for Virginia B. Wetherell, Secretary
Dept. of Environmental Protection

23 August 1995
Date

Florida Department of
Environmental Protection

Memorandum

TO: Virginia B. Wetherell

THROUGH: Dan Thompson

FROM: Howard L. Rhodes

DATE: August 18, 1995

SUBJECT: Approval of Construction Permit PSD-Fl-153A and AC 01-265409, Metal Container Corporation Gainesville, Alachua County, Florida

Attached for your approval and signature is a permit prepared by the Bureau of Air Regulation for the above mentioned company to modify the Gainesville Lid Plant.

The modification involves a new sealant used in attaching lids to aluminum cans. Allowable emissions of volatile organic compounds will be reduced to 319 tons per year (TPY) from the present limit of 484 TPY by use of low volatility solvents, coatings, and sealants. The new sealant is less toxic and less is required due to a trend toward smaller lids.

The original Intent to Issue was published in the Gainesville Sun on July 11, 1995. Some modifications were made in response to comments by Metal Container Corporation.

This permit is not controversial. I recommend your approval and signature.

HLR/th/t