



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

July 5, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

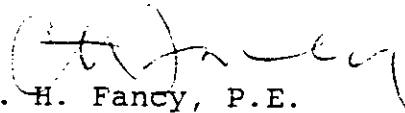
Mr. Gary V. Bishop, Plant Manager  
Metal Container Corporation  
5909 Northwest 18th Drive  
Gainesville, Florida 32606

Dear Mr. Bishop:

Attached is a copy of the Technical Evaluation and Preliminary Determination, proposed BACT determination, and proposed permit to construct/modify the Gainesville Lid Plant. Also included is the Intent to Issue as well as the Notice of Intent to Issue for you to publish.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. A. A. Linero of the Bureau of Air Regulation. If you have any questions regarding this matter, please call Teresa Heron at (904)488-1344.

Sincerely,

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

CHF/TH/t

Attachments

cc: Dean E. Pusch, MCC  
Robert Leetch, NED  
Pat Reynolds, NEDB  
Jeff Meling, P.E., ECT

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an  
Application for Permit by:

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

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

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INTENT TO ISSUE

The Department of Environmental Protection hereby gives notice of its intent to issue a construction permit (copy attached) for the proposed project, as detailed in the application specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Metal Container Corporation, applied on February 15, 1995 to the Department of Environmental Regulation for a permit to construct/modify the Gainesville Lid Plant.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed action.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information;

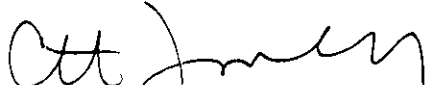
- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a

waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

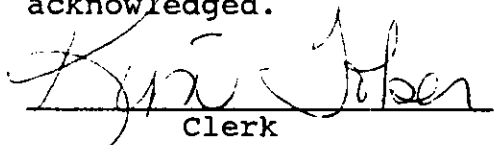
  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
904-488-1344

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 7-6-95 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 7-6-95  
Date

Copies furnished to:

Dean E. Pusch, MCC  
Robert Leetch, NED  
Pat Reynolds, NEDB  
Jeff Meling, P.E., ECT

2 392 979 042



**Receipt for  
Certified Mail**

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

PS Form 3800, March 1993

To <i>Gary Bishop</i>	
Street and No. <i>Metal Container</i>	
City, State, and ZIP Code <i>Gainesville, FL</i>	
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 <i>AC 01-265409 7-6-95</i> <i>PSD-FL-153A</i>	

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF INTENT TO ISSUE PERMIT

AC 01-265409  
PSD-FL-153A

The Department of Environmental Protection gives notice of its intent to issue a construction permit, No. AC 01-265409, to Metal Container Corporation, 5909 Northwest 18th Drive, Gainesville, Alachua County, Florida 32606 for the modification of their 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.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida 32301

Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Florida 32256-7577

Department of Environmental Protection  
Northeast District Branch Office  
5700 Southwest 34th Street, Suite 204  
Gainesville, Florida 32605

Any person may send written comments on the proposed action to Administrator, New Source Review at the Department of Environmental Protection, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such request must be submitted within 30 days of this notice.

Technical Evaluation  
and  
Preliminary Determination

Metal Container Corporation  
Gainesville, Alachua County, Florida

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

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

June 30, 1995



SYNOPSIS OF APPLICATION

I. FACILITY INFORMATION

I.1 Applicant Name and Address

Metal Container Corporation  
5909 Northwest 18th Drive  
Gainesville, Florida 32606

I.2 Reviewing and Process Schedule

Date of Receipt of Application: February 15, 1995.

Application Completeness Reviews: Department's letters dated March 10, and May 9, 1995.

Responses to Incompleteness Letters: Company's letters dated March 20, May 12 and May 22, 1995.

I.3 Facility Location

Metal Container Corporation is located at 5909 N.W. 18th Drive in Gainesville, Alachua County, Florida. The UTM coordinates are Zone 17, 369.38 km East and 3287.23 km North.

I.4 Standard Industrial Classification Code (SIC)

This facility is classified as follows:

Major Group No. 34 - Fabricated Metal Products, Except Machinery and Transportation Equipment

Group No. 341 - Metal Can and Shipping Containers

Industry No. 3411 - Metal Cans

I.5 Facility Category

Metal Container Corporation (MCC) is classified as a major emitting facility for volatile organic compounds (VOC). Allowable emissions of VOC were 484 TPY in 1994. The proposed project will decrease total allowable VOC emissions by 165 TPY. Actual volatile organic emissions for this facility will increase by 70.4 tons per year. Total permitted emissions for this facility after the proposed project will not exceed 319 TPY.

## II. PROCESS DESCRIPTION

Major steps in this process are as follows:

Aluminum stock is stamped into lids (shells) by the shell presses. The rims of these shells are curled in the presses, and end sealant is applied in the curl by the liners. The lids are "finished" by the conversion presses which emboss the lids, score the openings, and fabricate and attach the tabs. Figure 1 shows the basic process flow diagram. Material inputs (Items 1 through 5 in Figure 1) are shell stock, tab stock, end sealant compound, tab lube, and cleanup solvents, respectively. Material outputs (Items 6 through 7) are scrap aluminum and the finished lids. Emissions (Items 8 through 10) are end sealant VOC from the end liners, tab lube VOC from the conversion presses, and VOC from the use of cleanup solvents.

## III. PERMITTING CHRONOLOGY

On June 28, 1991, Florida Construction Permits AC 01-185835 and PSD-FL-153 were issued to Metal Container Corporation to modernize its Gainesville Lid Center (Table I). This modernization increased the facility's annual shell press production capacity to 10.047 billion lids from 6.528 billion lids. It also consolidated all previous state air permitting actions into a single federally-enforceable permit. All equipment previously assigned to Modules 1-4 was either retired or reallocated to Modules 4-7. New equipment was also assigned to Modules 4-7.

The modernization project consisted of:

- 1) The removal of all existing shell presses and conversion presses with the exception of:
  - a) The shell press, two conversion presses, and two liners previously permitted as Module 4,
  - b) The shell press, three conversion presses, and three liners previously permitted as Module 6,
  - c) The six remaining existing liners.
- 2) The addition of the following new equipment:
  - a) Two shell presses,
  - b) Seven conversion presses,
  - c) Three liners, and
  - d) A shell press scrap cyclone, and
  - e) Supporting equipment (e.g., balancers and baggers).

Permitted annual VOC emissions for the whole facility are 484 TPY.

In 1994, MCC requested to revise permits AC01-185835 and PSD-FL-153 to allow temporary use of a new end sealant compound to meet revised customer specifications.

The new sealant was a hexane-based compound which did not increase VOC emissions but raised concerns since hexane is a hazardous air pollutant (HAP). The permit was revised to reflect the use of the new compound. However, the HAPs emissions and ground level concentrations were evaluated to insure compliance with the Department's Ambient Reference Concentrations for hexane, toluene, and benzene. Permitted VOC emissions remained at 484 TPY.

In early 1995, MCC applied for this new modification of permits AC01-185835 and PSD-FL-153 to allow the use of a better end sealant with much less hexane compounds. Although the sealant results in emissions of less HAPs, it results in an actual increase of VOC emissions. However the permitted VOC emissions limit will be reduced from 484 TPY to 319 TPY. New permit numbers, AC01-265409 and PSD-FL-153A are assigned to the present modification project.

#### IV. PROJECT DESCRIPTION

MCC proposes to modify its operations at the Gainesville facility by changing end sealant compounds from DAREX S9357MHV, which is a hexane-based compound, to DAREX SLC 4357NP-57.5, a heptane-based compound. The new compound has a VOC content of 3.5 lb/gal (less water). It has a density of 8.3 lb/gal., of which approximately 42 percent by weight is VOC, consisting of n-heptane and heptane isomers (approximately 20 percent), cyclohexane (approximately 17 percent), isopropyl alcohol (approximately 4 percent), and octane and isomers (approximately 1 percent).

As a result of this modification, actual emissions from the end liners will increase based on the fact that the VOC content of the compound will increase from 3.2 lb/gal to 3.5 lb/gal. As future production increases to previously authorized levels, VOC emissions will be substantially less than allowed by earlier permits. This will occur as a result of the trend and company plans toward smaller lid sizes, the use of pre-lubricated tab stock, and a reduction on the use of mineral spirits due to substitution with mineral oil in most cases.

During the ongoing company modernization project (1991 to 1994), the new equipment has been integrated and placed into operation to implement production of smaller lids which obviously require less aluminum, coatings, sealants and solvents. In 1994 both "206" lids (i.e., lids with a diameter of 2 6/16 inches), and "204" lids (i.e., lids with a diameter of 2 4/16 inches) were manufactured. The emission limits in the current operating permit are based on the use of 0.0169 gallons of end sealant per 1,000 lids (gal/1,000 lids).

Sealant usage rates for the smaller (i.e., 204) lids are approximately 20 percent less which will allow for a reduction in potential emissions despite the immediate increase in actual emissions.

In addition, the composition of the VOC emissions will change. The proposed compound has no n-hexane, but somewhat more cyclohexane, relative to the currently used compound. It is important to note that n-hexane is designated a hazardous air pollutant (HAP), while cyclohexane is not. Therefore, emission of a HAP will be traded for those of a much less toxic, non-HAP, providing an obvious net environmental benefit.

A gradual change to pre-lubricated tab stock began, reducing the requirements for tab lube while the change in end sealant compound will ultimately eliminate the need for the cleanup solvent Isopar H (mineral spirits), which is being replaced with mineral oil. Mineral oil has no VOC, relative to the current permit limit of 6.3 lb VOC/gal for mineral spirits.

As a result of the foregoing, the permitted VOC emission limit will be reduced from 484 TPY to 319 TPY.

#### V. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-209 through 62-297 and 62-4.

Metal Container Corporation (MCC) is located in an area (Alachua County) currently designated as being in attainment for all criteria pollutants, F.A.C. Rule 62-275.400.

MCC is a major emitting facility for volatile organic compounds (VOC) as defined in F.A.C. Rule 62-212.200(42). Total permitted emissions of VOC for the entire facility after the proposed project, shall not exceed 319 TPY.

The proposed project, a modification to the lid manufacturing process, was reviewed under F.A.C. Rule 62-212.400, Prevention of a Significant Deterioration, which required the use of Best Available Control Technology (BACT) and an air quality analysis. The proposed project, increasing the facility's actual emissions by 70.4 VOC TPY, is considered under PSD regulations, a major modification to a major facility. The BACT determination will be revised to reflect current limits. The proposed modification will result in a relaxation of the existing permit limitation for an end sealant compound limit of 3.2 lb/gal VOC less water. The proposed new permit limit is 3.5 lb/gal VOC less water.

The proposed facility shall comply with Rule 62-210, F.A.C., General Pollutant Emission Limiting Standards; Rule 62-212, F.A.C., PSD regulations; and Rule 62-297, F.A.C., Stationary Point Source Emission Test Procedures.

## VI. SOURCE IMPACT ANALYSIS

### VI.1 Emission Limitations

The operation of this facility will produce emissions of volatile organic compound (VOC). These emissions occur from the use of end sealant compound, tab lube and clean-up solvents.

The chemical products used in this process are listed in material safety data sheets (MSDS) as containing n-heptane, n-hexane, cyclohexane, toluene, and benzene. These compounds and the amount emitted are listed in Table II.

The permitted emissions for the entire facility shall not exceed 78 lbs VOC/hour. Although this equates to 341.6 tons VOC/year, the applicant has agreed to a limitation of 319 tons VOC/year.

Table III summarizes the proposed VOC emissions at the facility.

### VI.2 Air Quality Analysis

Even though the proposed project is subject to PSD because the actual VOC emissions increase is greater than 40 TPY, no air quality analysis is required for this project since the VOC increase is less than 100 TPY.

However, modeling was done to evaluate maximum impacts of the three HAPs n-hexane, toluene and benzene which will be emitted by this facility. These impacts are presented in the table below.

Each pollutant's maximum 8-hour, 24-hour and annual impact is compared to the Department's draft Ambient Reference Concentrations (ARC).

Proposed maximum emission rates of hexane, toluene and benzene are 0.2, 0.1, and 0.001 lbs/hr, respectively; these values were used as inputs in modeling analysis.

As shown in the table below, all predicted impacts are less than their respective ARC.

Pollutant	Maximum Predicted Concentration (ug/m <sup>3</sup> )			ARCs (ug/m <sup>3</sup> )		
	8-hr	24-hr	Annual	8-hr	24-hr	Annual
n-hexane	4.01	2.54	0.40	1760	419	200
Toluene	2.00	1.27	0.27	1880	448	400
Benzene	0.02	0.01	0.002	30	7	0.12

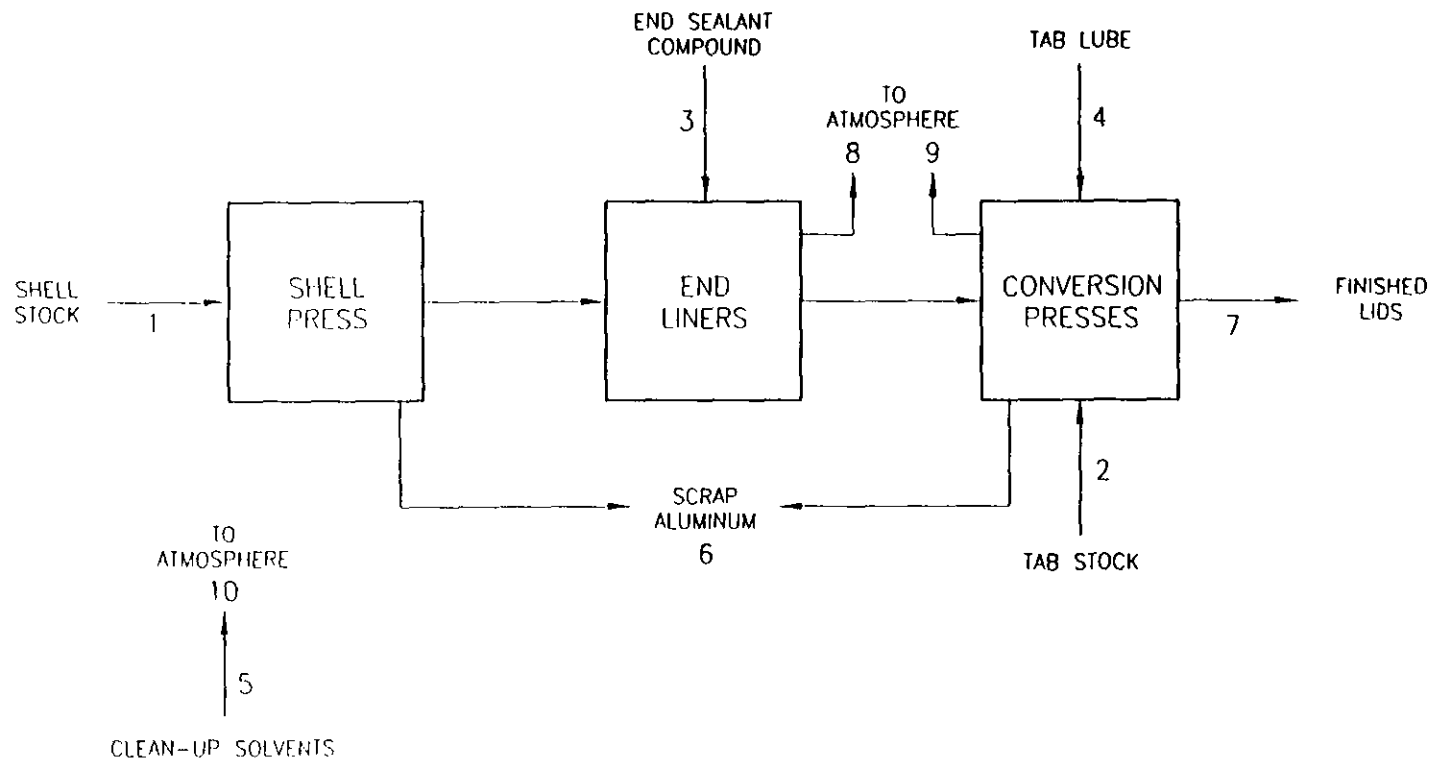
The information in the table above is based on results given by the EPA and Department approved Industrial Source Complex Short-Term (ISCST2) model, which was run with one year of meteorological data (Tallahassee surface and Waycross, Georgia upper air, 1986).

Since only one year of data was used, the highest predicted concentrations were compared to the ARC.

#### VII. CONCLUSION

Based on the information provided by Metal Container Corporation, the Department has reasonable assurance that the proposed installation, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapters 62-209 through 62-297 of the Florida Administrative Code.

*A.A. Jones 6/30*



ECT Number: 94273-0200  
 Last Update: 07/18/94  
 File: C:\ACAD\94273\ABR11.GA

FIGURE 1.  
 PROCESS FLOW DIAGRAM, MODULES 4-7

Source: MCC, 1994.

**ECT**  
 Environmental Consulting & Technology, Inc.

Table I. Current Gainesville Lid Plant Equipment Configuration and Production Capacities

Production Module	Equipment Quantities			Production Capacity
	Shell Presses	End Liners	Conversion Presses	Lids/Yr (billion)
4	1	2	2	1.182
5	1	4	3	2.659
6	1	5	3	2.659
7	1	5	2	1.773
Offline Presses	<u>0</u>	<u>0</u>	<u>2</u>	<u>1.773</u>
Plant Totals	4	16	12	10.047

Sources: MCC, 1994.  
ECT, 1994.



Table II

## Comparison of Individual VOC Emissions: Before and After Proposed Modification

Pollutant	1991 Emissions Before Modification*		1995 Emissions After Modification+	
	lb/hr	tpy	lb/hr	tpy
N-hexane	22.0	90.3	0.2	0.8
Hexane isomers	8.9	36.5	0.0	0.0
Cyclohexane	32.0	131.4	25.0	102.5
N-heptane**	14.8	60.7	33.8	138.9
Toluene	0.4	1.7	0.1	0.5
Benzene	0.002	0.01	<0.001	<0.01

\*Based on maximum permitted operations and the use of DAREX S9357MHV end sealant compound.

+Includes change in end sealant compound and other plant changes, as described in Section 2.2 of the application.

\*\*Includes heptane isomers.

Sources: MCC, 1995.  
ECT, 1995.

Note: Emissions of n-hexane will be almost entirely eliminated, as well as emissions of toluene and benzene. Cyclohexane emissions will also decrease by approximately 29 tons per year. Only emissions of n-heptane will increase by approximately 78.2 tons per year. It is important to note that n-hexane is designated an HAP, while cyclohexane is not. Therefore, emission of an HAP will be traded for those of a much less toxic, non-HAP, providing an obvious net environmental benefit.

Table III  
PROPOSED SUMMARY OF EMISSIONS

Compound	Density (lb/gal)	VOC Content (wt fraction)	Usage Rate (gal/ 1,000 lids)	Production Rate (1,000 lids)	VOC Emissions (tpy)
DAREX 4357NP (end liner)	8.3	0.417	0.0165	3,818,000*	109.0
DAREX 4357NP (end liner)	8.3	0.417	0.0132	6,229,000+	142.3
J-G 3810 (tab lube)	6.35	0.945	0.0015	10,047,000	45.2
Texsolve C (cleanup solvent- heptane)	5.81	1.000	0.0007	10,047,000	20.4
Mineral spirits (cleanup solvent)	6.31	1.000	0.00007	10,047,000	2.2
<b>TOTAL</b>					<b>319.1</b>

\*Production of "206" lids.

+Production of "204" lids.

Sources: MCC, 1995.  
ECT, 1995.



# 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**  
**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 construction/modification of the Lid Center (Modules 4 through 7) at 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.

**PERMITTEE:**  
Metal Container Corp.

**Permit Number:** AC01-265409  
PSD-FL-153A  
**Expiration Date:** July 30, 1996

**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.

**PERMITTEE:**  
Metal Container Corp.

**Permit Number:** AC01-265409  
PSD-FL-153A  
**Expiration Date:** July 30, 1996

**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.

**PERMITTEE:**  
Metal Container Corp.

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**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;

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- 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.

3.5 lbs VOC  
gal end sealant  
(excluding water)

6.0 lbs VOC  
gal tab lube  
(excluding water)

Clean Up Solvent: 6.32 lbs VOC and 5.84 lbs VOC  
gal mineral spirits gal heptane

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

Pollutant	Ambient Reference Concentrations (ug/m <sup>3</sup> )		
	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 lb/hr and 319 tons/yr.

Operating Requirements

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

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**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 10.047 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.

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 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 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. A composite sample of the VOC content



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**SPECIFIC CONDITIONS:**

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.

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:

- o Maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.,
- o 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;

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- o All fittings, valves, lines, etc., shall be properly maintained; and,
- o 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 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.

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**

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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:

<u>Compound</u>	<u>VOC Content (weight fraction)</u>
End Sealant	0.417
Tab Lube	0.945
Solvents	1.0

Date Receipt of a BACT Application:

February 15, 1995

Review Group Members:

This determination was based upon comments received from the applicant and the New Source Review Section.

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 pound/gallons. 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 thermal 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's 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.

Thermal Incineration:

Incineration is a commonly used method to control the emissions of VOC's from various processes that utilize VOC-containing compounds. Emission reductions are achieved through this method by capturing the VOC's 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 data the evaporation rate, 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's 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:

<u>Air Toxic</u>	<u>pounds/hr</u>	<u>tons/yr</u>
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 in impacts which are less than the Ambient Reference Concentrations.

BACT Determination by DEP:

Discussion:

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:

A. A. Linero, P.E.  
Teresa Heron, Review Engineer  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

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Virginia B. Wetherell, Secretary  
Dept. of Environmental Protection

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Date 1995

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Date 1995