

ILLINOIS POLLUTION CONTROL BOARD
March 20, 1997

THE D.B. HESS COMPANY, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 96-194
)	(Variance - Air)
)	
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

WILLIAM J. ANAYA, JOHNSON & BELL, APPEARED ON BEHALF OF PETITIONER;

CHRISTINA ARCHER, ASSISTANT COUNSEL, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by M. McFawn):

This matter comes before the Board on the March 15, 1996 variance petition filed by The D.B. Hess Company, Inc. (DB Hess), as amended on August 1, 1996. As explained in more detail below, DB Hess seeks relief from various provisions of 35 Ill. Adm. Code 218.407(a) and 218.411(b) as they relate to emissions of volatile organic material (VOM) from its lithographic printing operations located in Woodstock, McHenry County, Illinois. DB Hess seeks a variance from the compliance date for these rules for a period from March 15, 1996 through March 30, 1999. DB Hess, therefore, is requesting that the Board retroactively apply this variance. This relief is requested in lieu of purchasing, installing, and maintaining an afterburner for three older presses which it intends to shut down on or before March 30, 1999. A hearing was held in this matter on January 23, 1997 at the McHenry County Courthouse before Hearing Officer Deborah Frank.

On October 1, 1996, the Agency filed its variance recommendation in support of grant of amended petition for variance, subject to certain conditions. At hearing, the Agency and DB Hess agreed to modify the petition and the proposed compliance plan. (Tr. at 7-8.)

For reasons expressed below, the Board finds that DB Hess has presented adequate proof that immediate compliance with the Board's regulations would result in the imposition of an arbitrary or unreasonable hardship. Accordingly, the variance is granted, subject to conditions set forth in the attached order.

BACKGROUND

The Board's responsibility in this matter arises from the Environmental Protection Act (Act). (415 ILCS 5/1 *et seq.* (1994).) The Board is charged there with the responsibility of granting a variance from Board regulations whenever it is found that compliance with the regulations would impose an arbitrary or unreasonable hardship upon the petitioner. (415 ILCS 5/35(a).) The Illinois Environmental Protection Agency (Agency) is required to appear in hearings on variance petitions. (415 ILCS 5/4(f).) The Agency is also charged with the responsibility of investigating each variance petition and making a recommendation to the Board as to the disposition of the petition. (415 ILCS 5/27(a).)

DB Hess, an Illinois corporation, owns and operates a lithographic printing plant located in Woodstock, McHenry County, Illinois (the Woodstock plant). (Pet2. at 2.)¹ The Woodstock plant uses heatset web offset lithographic printing processes. (Pet2. at 2.) DB Hess prints education workbooks and commercial and industrial catalogues. (Pet2. at 2.) The Woodstock plant emits VOM into the atmosphere from these printing processes. (Pet2. at 2.)

The production equipment at the Woodstock plant consists of two heatset web offset lithographic printing presses, presses 1 and 2, controlled by a thermal oxidizer. (Ag. Rec. at 4.) Presses 1 and 2 are also known as the Solna C96 and Harris M1000B presses, respectively. (Pet2. at 5.) Three heatset web offset presses, presses 3, 4, and 5, are uncontrolled and the subject of this variance. (Ag. Rec. at 4.)² Press 3 is also known as an ATF press and presses 4 and 5 are also known as Harris presses. Each heatset printing line includes one drying oven, fired with natural gas. (Pet2. at 5.)

In the lithographic printing process, ink is transferred from rubber-covered "blanket" cylinders to one or both sides of a moving paper web at one or more printing units (one color per unit). (Pet2. at 5-6.) In heatset web lithography, the printed paper passes through a heated dryer to evaporate the ink oil and set the image. (Pet2. at 6.) The printed paper is then directed through ancillary finishing equipment, such as trimmers, folder or stitchers. (Pet2. at 6.) At the Woodstock plant, the exhausts from the heatset press dryers for presses 3, 4, and 5 are vented through the roof of the Woodstock plant. (Pet2. at 6.)

Emissions of VOM from the Woodstock plant result from the use of inks, fountain solution additives and cleaning solutions in the heatset printing process. (Pet2. at 6.) Fountain solution is an additive that is used in the offset printing process to displace printing ink from the blanket cylinder. (Pet2. at 6.) Fountain solution often contains alcohol or other VOM in small amounts, and is diluted from a concentrate and applied from reservoirs shared by the

¹ DB Hess' August 1, 1996 petition for variance shall hereinafter be referred to as (Pet2. at __.); DB Hess' March 15, 1996 petition for variance shall be referred to as (Pet1. at __.); the Agency's recommendation shall be referred to as (Ag. Rec. at __.); The January 23, 1997 hearing with regard to this matter shall be referred to as (Tr. at __.)

² In addition to the aforementioned presses, two cold set sheet presses, presses RZ5 and 10, are operated pursuant to 35 Ill. Adm. Code 218.407 through 218.411.

presses. (Pet2. at 6.) The Woodstock plant currently uses and will continue to use fountain solutions which are applied at a concentration of less than 5% VOM and contain no alcohol. (Pet2. at 6-7.) Cleaning solution is used to clean ink residues from the blanket cylinders at intervals that depend on the quantity of ink used during a run. (Pet2. at 7.) Like fountain solution, cleaning solution at the Woodstock plant is diluted from a concentrate. (Pet2. at 7.) Cleaning solution may be applied either manually, using spray bottles and towels to wipe down the cylinders or automatically with autowash equipment fitted specially for the press. (Pet2. at 7.) Presses 3, 4, and 5 are cleaned manually. (Pet2. at 7.)

Heatset printing inks are formulated from solids, inks oils and solvents, a proportion of which are VOM. (Pet2. at 6.) At the Woodstock plant, the highest VOM content of any heatset inks currently used at the time of DB Hess' amended petition for variance is 42%, but several inks used in significant volumes contain significantly less VOM. (Pet2. at 6.) DB Hess uses the mass balance technique to measure the quantity of VOM actually emitted from the Woodstock plant. (Pet2. at 7.) DB Hess keeps daily records at the Woodstock plant and records the quantity and VOM content of each ink prepared for application and the quantity and VOM content of each batch of fountain solution and cleaning solution prepared and used at the Woodstock plant. (Pet2. at 7.) From these records and from emission factors considered by the United States Environmental Protection Agency (USEPA) to reflect Reasonably Achievable Control Technology (RACT), DB Hess calculates uncontrolled and controlled VOM emissions on a monthly basis. (Pet2. at 7.) In 1995, DB Hess emitted approximately eleven tons of VOM. (Pet2. at 8.) A little more than five tons resulted from heatset ink oils and a little more than four tons resulted from cleaning solvent. (Pet2. at 8.) The Woodstock plant currently operates under a Federally Enforceable Operating Permit (FESOP), issued by the Agency on December 11, 1995, which limits all VOM from the Woodstock plant to less than 25 tons per year. (Pet2. at 8, Att. F.)

The Woodstock plant employs 143 full-time employees working three shifts. (Pet2 at 2.) The Woodstock plant produces 50 million printed products for use in industrial, commercial and educational sectors. (Pet.2 at 2.)

Woodstock has a population of approximately 14,500 people, and is located in McHenry County, in a rural section at the northwestern edge of the Metropolitan Chicago Interstate Air Quality Control Region (AQCR), as defined pursuant to Section 107 of the Clean Air Act. (40 C.F.R. 81.14 (1995); 42 U.S.C. Section 7407.) (Ag. Rec. at 5.)

REGULATORY FRAMEWORK

In determining whether any variance is to be granted, the Act requires the Board to determine whether a petitioner has presented adequate proof that immediate compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship. (415 ILCS5/35 (a) (1994).) Furthermore, the burden is on the petitioner to show that its claimed hardship outweighs the public interest in attaining compliance with regulations designed to protect the public. (*Willowbrook Motel v. Pollution Control Board* (1985), 135 Ill. App. 3d 343, 481 N.E. 2d 1032.) Only with such a showing can the claimed hardship rise to the level of unreasonable hardship.

A further feature of a variance is that it is, by its nature, a temporary reprieve from compliance with the Board's regulations, and compliance is sought regardless of the hardship which the task of eventual compliance presents an individual polluter. (*Monsanto Co. v. Pollution Control Board* (1977), 67 Ill. 2d 276, 367 N.E. 2d 684.) Accordingly, except in certain special circumstances, a variance petition is required, as a condition to a grant of variance, to commit to a plan which is reasonably calculated to achieve compliance within the terms of the variance.

The Lithography Rules

The variance requested concerns several of the Board's air regulations, found at 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411(b)(1), (2), (3)(1995), and which are a part of "the Lithography Rules."

The Lithography Rules were first proposed on October 28, 1994, when the Agency submitted a proposal for rulemaking entitled In the Matter of: 15% ROP Plan Control Measures of VOM Emissions - Part V: Control of VOM Emissions from Lithographic Printing: Amendments to 35 Ill. Adm. Code Parts 211, 218 and 219, and docketed as R94-31. R94-31 was published as a final rule in the Illinois Register, and had an effective date of May 9, 1995, and a compliance date of March 15, 1996. (19 Ill. Reg. 6823, 6848, and 6958 (May 19, 1995).) The Agency submitted R94-31 to the USEPA as a State Implementation Plan revision. (Ag. Rec. at 2.) USEPA published a final rule in the *Federal Register* to be effective January 8, 1996 (60 *Fed Reg* 56238 (November 8, 1995).)

The regulations under R94-31 tightened the requirements for heatset web offset lithographic printing and promulgated new requirements for other types of lithographic printing. (Ag. Rec. at 2.) Specifically, the new requirements apply to any owner or operator of lithographic printing presses if the maximum theoretical emissions from all heatset lines are more than 100 tons per year (TPY) of VOM unless a FESOP limits uncontrolled emissions to less than 100 TPY from all heatset lines. (See 35 Ill. Adm. Code 405(d)(1).) The FESOP, under which the Woodstock plant currently operates, limits uncontrolled emissions to less than 100 TPY from all heatset lines. (Pet2. at Att. F.) However, the new requirements also apply if the source emits 100 pounds or more per day of VOM before control, from all printing processes. (See 35 Ill. Adm. Code 218.405(d)(2).) Because the permitted, uncontrolled VOM emissions from all printing processes at the Woodstock plant exceed 100 pounds per day, the Lithography Rules apply to the Woodstock plant. DB Hess is not in compliance with the afterburner requirement of the Lithography Rules as those rules apply to presses 3, 4 and 5.

On March 15, 1996, the compliance date for the Lithography Rules, DB Hess filed a petition for variance from the Part 218 requirements for heatset web offset lithographic printing operations. In pertinent part they read:

Section 218.407 Emission Limitations and Control Requirements for Lithographic Printings On and After March 15, 1996

a) On and after March 15, 1996, no owner or operator of lithographic printing line(s) subject to the requirements of this Subpart shall:

1) Cause or allow the operation of any heatset web offset lithographic printing line unless:

* * *

B) The air pressure in the dryer is maintained lower than the air pressure of the press room, such that air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating;

C) An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced by 90 percent, by weight, or to a maximum afterburner exhaust outlet concentration of 200 ppmv (as carbon);

D) The afterburner is equipped with the applicable monitoring equipment specified in Section 218.105(d)(2) of this Part and the monitoring equipment is installed, calibrated, operated, and maintained according to manufacturer's specifications at all times when the afterburner is in use; and

E) The afterburner is operated at all times when the printing line is in operation.

* * *

b) An owner or operator of a heatset web offset lithographic printing line subject to the requirements of subsection (a)(1)(C) of this Section may use a control device other than an afterburner, if:

1) The control device reduces VOM emissions from the press dryer exhaust(s) by at least 90 percent, by weight, or to a maximum control device exhaust outlet concentration of 20 ppmv (as carbon).

* * *

(35 Adm. Code 218.407 (1995))

Section 218.411 Recordkeeping and Reporting for Lithographic Printing

b) An owner or operator of a heatset web offset lithographic printing line(s) subject to the control requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart shall comply with the following:

- 1) By March 15, 1996, upon initial start-up of a new printing line, and upon initial start-up of a new control device for a heatset web offset printing line, submit a certification to the Agency that includes the following:
 - A) An identification of each heatset web offset lithographic printing line at the source;
 - B) A declaration that each heatset web offset lithographic printing line is in compliance with the requirements of Section 218.407(a)(1)(B), (a)(1)(C), (a)(1)(D) and (a)(1)(E) or (b) of this Subpart, as appropriate;
 - C) The type of afterburner or other approved control device used to comply with the requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart;
 - D) The control requirements in Section 218.407(a)(1)(C) or (b)(1) with which the lithographic printing line is complying;
 - E) The results of all tests and calculations necessary to demonstrate compliance with control requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart as applicable; and
 - F) A declaration that the monitoring equipment required under Section 218.407(a)(1)(D) or (b) of this Subpart, as applicable, has been properly installed and calibrated according to manufacturer's specifications.
- 2) If testing of the afterburner or other approved control device is conducted pursuant to Section 218.409(b) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
 - A) A declaration that all tests and calculations necessary to demonstrate whether the lithographic printing line(s) is in compliance with Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as applicable, have been properly performed;
 - B) A statement whether the lithographic printing line(s) is or is not in compliance with Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as applicable; and
 - C) The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with Section 218.410(c) or (d) of this Subpart, as applicable;

- 3) On and after March 15, 1996, collect and record daily the following information for each heatset web offset lithographic printing line subject to the requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart:
- A) Afterburner or other approved control device monitoring data in accordance with Section 218.410(c) or this Subpart, as applicable;
 - B) A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;
 - C) A maintenance log for the afterburner or other approved control device and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages; and
 - D) A log detailing checks on the air flow direction or air pressure of the dryer and press room to insure compliance with the requirements of Section 218.407(a)(1)(B) of this Subpart at least once per 24-hour while the line is operating.

(35 Ill. Adm. Code 411 (1995))

Stay of Rule or Regulation

Section 38(b) of the Act addresses under what circumstances a rule or regulation may be stayed pending the disposition of a petition for variance. In pertinent part, it reads:

If any person files a petition for a variance from a rule or regulation within 20 days after the effective date of such rule or regulation, the operation of such rule or regulation shall be stayed as to such person pending the disposition of the petition; however, provided that the operation of any rule or regulation adopted by the Board which implements, in whole or in part, a State RCRA, UIC or NPDES program shall not be stayed.

(415 ILCS 5/38(b) (1994))

PETITION AND COMPLIANCE PLAN

DB Hess seeks relief from 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) to the extent the rules relate to VOM emissions from its printing processes 3, 4, and 5. DB Hess also seeks relief from 35 Ill. Adm. Code 218.411(b)(1), (2), (3) in so far as they relate to DB Hess' violation of afterburner notice requirements from its printing presses 3, 4, and 5.³

The variance is sought from March 15, 1996 through March 15, 1999, during which DB Hess proposes a plan to reduce its emissions using a phased compliance plan. Currently, presses 3, 4, and 5 are not equipped with control equipment. In lieu of purchasing, installing and maintaining an afterburner for presses 3, 4, and 5 at this time, DB Hess proposes a phased

plan for upgrading or replacing and otherwise reducing its VOM emissions for presses 3, 4, and 5. (Pet2. at 12.)

DB Hess proposes a compliance plan in which, among other things, it commits to begin using only cleaning solution that does not exceed 30% VOM by weight at the Woodstock plant on or before March 30, 1997. On or before March 30, 1998, it will cease operation of press 3. (Pet2. at 24.) Moreover, by March 30, 1999, DB Hess maintains it will do one of the following: cease operations of presses 4 and 5, retrofit presses 4 and 5, or obtain replacements for presses 4 and 5 in compliance with Board regulations. (Pet2. at 24.) Finally, DB Hess maintains that from the time the petition was filed with the Board, it limited the combined VOM emissions from the presses at the Woodstock plant to 18 TPY or 1.5 tons per month or less. (Pet2. at 23.) (Ag. Rec. at 14.) DB Hess requests that the variance terminate when presses 3, 4, and 5 have ceased operation, have been replaced, or have been retrofitted with control equipment, and have been tested and demonstrated compliance with all applicable Lithography Rules to the Agency on or before March 30, 1999, at which time the variance will terminate. (Ag. Rec. at 16.)

Ralph Frank, Vice-President of Manufacturing at DB Hess, testified at hearing that DB Hess is already complying with portions of its proposed compliance plan. For instance, DB Hess is already using cleaning solutions on presses 3, 4, and 5 that have a VOM composite partial vapor of less than 10 mm Hg at 20 degrees Celsius. (Tr. at 25.) Further, DB Hess is already storing and disposing of its cleaning towels in closed containers. (Tr. at 26.) Moreover, DB Hess is already limiting its combined VOM emissions to 18 TPY or 1.5 tons per month. Finally, Mr. Frank testified that DB Hess is prepared to do the following: file quarterly reports, maintain records, monitor presses 3, 4, and 5 in accordance with 35 Ill. Adm. Code 218.410(b), (c), (d), and use fountain solutions on presses 3, 4, and 5 that are less than 5% VOM by volume. (Tr. at 24-26.)

PAST EFFORTS TOWARD COMPLIANCE

In order to achieve compliance with the Lithography Rules, DB Hess considered three add-on control technologies commercially available for use in the lithographic industry to control VOM emissions: (1) carbon adsorption technology; (2) chilled condenser technology; and (3) catalytic or thermal oxidation technology. (Pet2. at 10.)

DB Hess maintains that carbon adsorption is not conducive to controlling VOM emissions from the heatset process. (Pet2. at 10.) The vapor pressure of heatset ink oils, the primary source of VOM emissions in this process, is sufficiently low to prevent efficient desorption of saturated carbon beds. Carbon adsorption beds may not be used for long before replacement is necessary. (Pet2. at 11.) Therefore, DB Hess claims that carbon adsorption technology cannot reasonably be applied to control presses 3, 4, and 5.

DB Hess also contends that chilled condenser technology is inappropriate for the heatset process. (Pet2. at 11.) This technology is often rated at a VOM removal efficiency under ninety percent. (Pet.2 at 11.) Also, because ink oils are heavy, however, chilled condensers are prone to clogging and often cannot achieve a removal efficiency greater than

50%. (Pet2. at 11.) Accordingly, DB Hess alleges that chilled condenser technology cannot reasonably be applied to control presses 3, 4 and 5.

Finally, while catalytic or thermal oxidation technology is adaptable to the heatset process, DB Hess maintains that this technology is expensive to apply to presses 3, 4, and 5 because they are old, and the environmental benefit would be negligible. (Pet2. at 11.)

During the past year, DB Hess has reduced VOM emissions at the Woodstock plant by working with Deluxe Corporation, a supplier of low VOM inks. (Pet2. at 12.) DB Hess had successfully produced quality products with these inks at a vastly reduced uncontrolled VOM emissions rate. (Pet2. at 12.) Due to circumstances beyond DB Hess' control, Deluxe Corporation has stopped its production of these inks at competitive prices. DB Hess still remains committed to seeking other sources of low VOM ink suppliers. (Pet2. at 12.)

HARDSHIP

DB Hess' Assertions

DB Hess contends that the generally applicable standards pose an arbitrary or unreasonable hardship for two reasons: 1) the rules pertaining to lithographic printing operations arbitrarily require DB Hess to incur substantial business risks by making a substantial, short-lived, capital investment involving older equipment all for a negligible environmental benefit; and 2) the rules require DB Hess to bear an unreasonable cost to control an environmentally negligible quantity of VOM emissions. (Pet2. at 18.) Presses 3, 4, and 5 represent only a small proportion, 33% of the plant's entire production and 35% of the plant's total uncontrolled VOM emissions, of the Woodstock plant's heatset production capacity. (Pet2. at 18.) Further, DB Hess contends that presses 3, 4, and 5 were installed in 1975, 1984 and 1984, respectively, and have an average production life of 25 years. (Pet2. at 18.)

According to the 35 Ill. Adm. Code 218.407(a)(1)(C), DB Hess must install an afterburner to control its older presses. (Pet2. at 18.) Adding an afterburner to control the three older presses would require DB Hess to make a very substantial, short-lived capital investment in excess of the value of each press and in excess of the expected value produced by these presses during their estimated useful life. (Pet2. at 19.) Ralph Frank, Vice-President of Manufacturing for DB Hess, testified at hearing that a new press stripped down costs \$4 million and an average press costs between \$6 million and \$8 million. (Tr. at 20.) Moreover, DB Hess alleges that the estimated cost of installing an afterburner to control presses 3, 4, and 5 is \$215,000 in capital investment and approximately \$65,000 annually in operating and maintenance costs. (Pet2. at 19.) Therefore, DB Hess alleges, that retrofitting older technology in reaction to environmental regulation is arbitrary, inefficient, inappropriate, and unreasonable. (Pet2. at 19.)

Further, Richard J. Trzupsek, Environmental Consultant for DB Hess, testified at hearing that it would cost DB Hess between \$48,000 and \$69,000 per ton per year to control its VOM emissions (Tr. at 36.) Mr. Trzupsek testified, that upon analysis of independent

standards for reasonable cost controls, the average cost of emissions controls is between \$1800 and \$3100 per ton per year. (Tr. at Ex. 8.) Therefore, in order to control VOM emissions, DB Hess would have to spend far beyond the average estimated cost.

Finally, William J. Anaya, attorney for DB Hess, noted at hearing that two of the heatset web presses at the Woodstock plant are in complete compliance through efforts of DB Hess. (Tr. at 47.) Mr. Anaya also noted that all of the coldset web sheet fed presses at the Woodstock facility have been in full compliance since they began operation. (Tr. at 47.)

The Agency's Recommendations

The Agency states that DB Hess has not previously sought a variance from the aforementioned regulations. (Ag. Rec. at 6.) After DB Hess obtained its FESOP that restricts uncontrolled VOM emissions to below 100 tons per year and prior to March 15, 1996, DB Hess was in compliance with applicable state regulations. (Ag. Rec. at 6.) Except for presses 3, 4, and 5, DB Hess is in compliance with all other aspects of 35 Ill. Adm. Code 218.407. (Ag. Rec. at 6.)

The Agency agrees that denial of a variance would result in an arbitrary or unreasonable hardship to DB Hess. (Ag. Rec. at 11.) The Agency affirms, DB Hess would be making a substantial, short-lived capital investment if required to install an afterburner on presses that are expected to be shut down within three years because such an expenditure would be in excess of the value of each press and the expected value produced by those presses during their estimated useful life remaining. (Ag. Rec. at 12.)

The Board agrees that DB Hess would suffer a financial hardship if compelled to retrofit these three presses with control equipment this near to the end of their useful lives. Furthermore, the replacement costs ranging from \$4 to \$8 million per press justify the need for the phased approach proposed by DB Hess over the term of the variance. Accordingly, the Board finds that to require immediate compliance with the rules pertaining to lithographic printing operations would impose an arbitrary or unreasonable hardship on DB Hess.

ENVIRONMENTAL IMPACT

DB Hess' Assertions

DB Hess maintains that there will be no adverse environmental impact from its proposed compliance plan. (Pet2. at 16.) DB Hess notes that its Woodstock plant is located in the Chicago AQCR and that the data from the closest ambient ozone monitoring station in McHenry County has not recorded a single violation during the past four years. (Pet2. at 16.) Furthermore, DB Hess contends that its current and proposed operations do not represent a material threat to the environment. (Pet2. at 16.) In 1995, DB Hess' records indicate that the Woodstock plant emitted eleven tons of VOM. (Pet2. at 16, Ex. E-2.) The rules relating to the afterburner requirement would reduce these emissions by approximately six tons. (Pet2 at 16.) DB Hess maintains that its proposed plan would create a negligible environmental impact of six tons of VOM per year in the short term, e.g., over the next five years. (Pet2 at 17.)

Moreover, DB Hess alleges that the environmental benefit of the Lithography Rules are non-existent as they relate to the Woodstock plant. (Pet2. at 17.) In its compliance plan, DB Hess commits to limiting VOM emissions to 18 tons of VOM annually. (Pet2. at 17.) Without a variance, DB Hess is required to limit VOM to just below 25 tons per year, even if presses 3, 4, and 5 were controlled in accordance with the Lithography Rules. (Pet2. at 17.) In its proposed compliance plan, DB Hess voluntarily agrees to lower the Woodstock plant's potential to emit (PTE) to a point below that which the new regulations require. (Pet2. at 17.) Accordingly, DB Hess alleges that its proposed compliance plan will result in real environmental benefit over the long term as DB Hess' production increases and its VOM emissions decrease. (Pet2. at 17.) Finally, DB Hess contends that as it approaches the proposed lower VOM emissions limit, DB Hess will be forced to look to new technology to allow the Woodstock plant to increase production. (Pet2. at 17.)

The Agency's Recommendations

The Agency concludes that, based upon the emission limitation of VOM to 18 TPY suggested in DB Hess' compliance plan, there will not be "substantially or significantly more adverse environmental impact than those effects considered in the adoption of the RACT in R94-31." (Ag. Rec. at 9-10.) The Agency, however, takes issue with several assertions made by DB Hess. First, the Agency, noted that the fact that the closest monitor to DB Hess has not had any exceedences does not mean that DB Hess has not contributed to the problem of ozone. (Ag. Rec. at 8.) In its proposed compliance plan, DB Hess maintains that it will limit its VOM emissions to 18 TPY. The Agency maintains that DB Hess' statement that it will "voluntarily lower the Woodstock plant's potential to emit (PTE) to a point below that which the new regulations require" confuses the terms "actual emissions" and "potential to emit". (Ag. Rec. at 8.) The Agency claims that PTE is defined by 35 Ill. Adm. Code 211.4970 as the "maximum capacity of a stationary source to emit any air pollutant under its physical and operational design", i.e., the maximum amount of emissions that a source could potentially emit. (Ag. Rec. at 9.) Actual emissions, the Agency claims, is defined as the "quantity of pollutants a facility actually emits." Reducing "potential" emissions does not equate to a real environmental benefit especially when in fact, DB Hess does not actually emit near its PTE. (Ag. Rec. at 9.) So, while the Agency disagrees with DB Hess that there will be no environmental impact, it concludes that the impact will not be "substantially or significantly more adverse than the impact intended in the adoption of the RACT regulations of R94-31." (Ag. Rec. at 10.)

The Board concludes that given the 18 TPY emission limit contained in DB Hess' compliance plan, there will be a minimal environmental impact for the relatively short term of the variance.

CONSISTENCY WITH FEDERAL LAW

DB Hess' Assertions

DB Hess maintains that the proposed variance is consistent with federal law. (Pet2. at 20.) Specifically, DB Hess alleges that there is no federal requirement that DB Hess comply with the generally applicable requirements to control heatset presses with an afterburner of 90% overall VOM control efficiency. (Pet2. at 20.) The Clean Air Act, 42 U.S.C. Section 7401 *et seq.*, and the applicable federal regulations, codified at 40 C.F.R. Part 51, require only that the State achieve and maintain the primary and secondary National Ambient Air Quality Standards for ozone. (Pet2. at 20.) DB Hess notes, however, that the Illinois State Implementation Plan (SIP) contains an ozone control strategy for the Chicago AQCR and that this strategy includes the rules governing lithographic operations. (See 40 C.F.R. 52.741(h)(5) (Pet2. At 21.) Therefore, in the event of a variance involving the ozone control strategy, the Illinois SIP must be revised. (40 C.F.R. 52.741(a)(7).)

The Agency's Recommendations

The Agency notes that, as required by 35 Ill. Adm. Code 104.122(a), DB Hess has alleged compliance with the requirements of the Clean Air Act. (Ag. Rec. at 11.) The Agency concludes that a variance from 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411(b)(1), (2), (3) would not violate the Clean Air Act as amended in 1990. (42 U.S.C. Section 7511(b)(3)(B)(ii) (1990).) Finally, the Agency maintains that all federal procedural requirements for a SIP revision have been met. (Ag. Rec. at 12.) The requirements of notice and opportunity for public participation have been met by the hearing held in this matter on January 23, 1997. In accordance with federal requirements, if the variance is granted, the Agency will submit to USEPA a SIP revision regarding the variance because it is located in a nonattainment area. (Ag. Rec. at 12.)

The Board finds that grant of this variance is consistent with federal law.

RETROACTIVE RELIEF

DB Hess requests that this variance commence on March 15, 1996, and therefore, that the Board retroactively apply this variance. (Tr. at 48.) The Agency agreed with DB Hess that retroactive relief should be granted in this matter. (Tr. at 49.) The Board has determined that, in the absence of unusual or extraordinary circumstances, the Board grants a variances as effective on the date of the Board order in which it is issued. (LCN Closures, Inc. v. IEPA (July 24, 1989), PCB 89-27, 101 PCB 283, 286; Borden Chemical Co. v. IEPA (December 5, 1995), PCB 82-82, 67 PCB 3, 6.) As the appellate court discussed in Monsanto Co. v. Pollution Control Board, “[t]he Board can provide relief from the hardship of immediate compliance and yet retain control over a polluter’s future conduct by granting a temporary variance.” (Monsanto Co. v. Pollution Control Board 67 Ill.2d 276, 288 (1977).) The very concept of a retroactive variance would eliminate the Board’s ability to retain any control over the polluter’s activity during the term of the variance.

Although the Board does not generally grant variances retroactively, retroactive variances have been granted upon specific justification. (Deere & Company, John Deere Harvester East Moline Works v. IEPA (September 8, 1988), PCB 88-22, 92 PCB 91.) The Board stated that the reasoning behind the general policy is to discourage untimely filed

petitions for variance, i.e., variances filed after the start of the claimed arbitrary or unreasonable hardship creating the desire for a retroactive start; and because the failure to request relief in a timely manner is a self-imposed hardship. (Fedders-USA v. IEPA (April 6, 1989), PCB 86-47, 98 PCB 15, 19; DMI, Inc. v. IEPA (February 23, 1987), PCB 88-132, 96 PCB 185, 187; and American National Can Company v. IEPA (August 31, 1989), PCB 88-203, 102 PCB 215, 218.)

The Board finds that this variance will begin on the date of this order, and therefore, it will not retroactively apply this variance. The Board notes that DB Hess filed its petition for variance on March 15, 1996, the compliance date of the Lithography Rules; the effective date of the applicable rules was May 9, 1995. (Supra at 4.) DB Hess did not file its petition within 20 days after the effective date of the Lithography Rules; therefore, the rules are not stayed as to its Woodstock plant printing presses 3, 4, and 5. (415 ILCS 5/28(b) (1994).) Further, DB Hess never presented any “special or unusual circumstances” giving rise to a need for retroactive application of this variance. As discussed, specific justification must be given for the Board to grant retroactive relief. Accordingly, the variance shall commence on the date of this order.

CONCLUSIONS

Balancing the alleged hardship against the anticipated environmental impact, the Board finds that to require immediate compliance with the rules pertaining to lithographic printing operations would impose an arbitrary or unreasonable hardship on DB Hess. Further, the Board concludes that there will be a minimal environmental impact for the relatively short term of the variance. Finally, the Board finds that grant of this variance is consistent with federal law. The Board, accordingly, grants DB Hess variance from 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411(b)(1), (2), (3)(1995).

The order reflects the Agency’s recommendations; however, it has been altered to achieve greater clarity. The order also takes into account the fact that DB Hess testified at hearing that it is already implementing various terms of its variance as set forth in the compliance plan and schedule section of its petition. The order reflects the fact that DB Hess testified at hearing it is already doing the following: maintaining its records pursuant to 35 Ill. Adm. Code 218.411(b), (c), (d); submitting quarterly reports to the Agency; using cleaning solutions on presses 3, 4, and 5 that have a VOM composite partial vapor pressure of less than 10 mm Hg at 20 degrees Celsius; and storing and disposing of all cleaning solution towels in closed containers. (Tr. at 24-25.) Moreover, the order considers DB Hess’ testimony that it is prepared to implement or is already implementing the following: monitoring presses 3, 4, and 5 pursuant to 218.410(b), (c), (e); using fountain solutions on presses 3, 4, and 5 that are less than 5% VOM by volume, and which contain no alcohol; reducing the VOM emissions to 18 TPY or 1.5 tons per month; and using cleaning solution that does not exceed 30% VOM by weight. (Tr. at 25.)

This opinion constitutes the Board’s findings of fact and conclusions of law in this matter.

ORDER

The D.B. Hess Company, Inc. is hereby granted a variance from 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411(b)(1),(2), (3) for one ATF and two Harris heatset web offset lithographic presses, identified as presses 3, 4, and 5, at its facility located at 1530 McConnell Road, Woodstock, McHenry County, Illinois, subject to the conditions outlined below.

1. Variance term. The variance begins on March 6, 1997 and terminates when presses 3, 4 and 5 have ceased operation, or have been replaced or retrofitted with control equipment, which has been tested and compliance with all applicable rules has been demonstrated to the Agency. This variance shall terminate no later than March 30, 1999.
2. On or before March 20, 1997 the combined VOM emissions from all of petitioner's presses at the Woodstock plant in operation shall not exceed 18 TPY or 1.5 tons per month.
3. On or before March 20, 1997, petitioner shall use only cleaning solution that does not exceed 30% VOM by weight at the Woodstock plant.
4. On or before March 20, 1997, petitioner shall use cleaning solutions on presses 3, 4, and 5 that have a VOM composite partial vapor pressure of less than 10 mm Hg at 20 degrees Celsius, and the new cleaning solutions shall comply with 35 Ill. Adm. Code 218.407(a)(4).
5. On or before March 20, 1997, petitioner shall store and dispose of all cleaning towels in closed containers.
6. On or before May 5, 1997, petitioner shall use fountain solutions on presses 3, 4, and 5 that are less than 5% VOM by volume, as applied, and which contain no alcohol.
7. On or before May 5, 1997, petitioner shall monitor presses 3, 4, and 5 pursuant to 35 Ill. Adm. Code 218.410(b), (c), (e).
8. On or before May 5, 1997, petitioner shall prepare and maintain records pursuant to 35 Ill. Adm. Code 218.411(b), (c), (d) for presses 3, 4, and 5 to show compliance with the requirements of 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411(b)(1), (2), (3).
9. On or before May 5, 1997, petitioner shall submit quarterly reports to the Illinois Environmental Protection Agency's Compliance and Systems Management Section, as identified in Number 13 of this order, demonstrating compliance with the terms of the Board order.
10. On or before March 30, 1998, petitioner shall cease operation of press 3.
11. On or before March 30, 1999, petitioner shall either:

- A. Cease operation of presses 4 and 5, and notify the Illinois Environmental Protection Agency of such cessation; or
 - B. Retrofit presses 4 and 5 or replace presses 4 and 5 in compliance with 35 Ill. Adm. Code 218.407(a)(1)(C), (D), (E) and 218.411.(b)(1), (2), (3), in which case:
 - (1) Petitioner shall apply for and obtain necessary construction permits by March 30, 1998, or six months before retrofitting or replacing presses 4 and 5, whichever is earlier.
 - (2) Petitioner shall send monthly status reports, due on the 15th day of the month after the prior month's status report, to the Illinois Environmental Protection Agency at the address identified in Number 13 of this order, on the progress of the installation of the presses and control equipment and testing of the control equipment, with the following information:
 - (a) Dates construction will commence and be completed;
 - (b) Test results; and
 - (c) Any relevant correspondence from the control equipment manufacturer or the construction company regarding the status of installation/construction (i.e., unexpected delay, installation/construction on schedule, completion ahead of schedule).
12. On or before March 30, 1999, petitioner shall cease operations at presses 3, 4, and 5 except for those it has applied for and obtained permits, retrofitted presses and installed controls, which have been tested and demonstrated to be in compliance with applicable rules by March 30, 1999.
13. All notifications to the Illinois Environmental Protection Agency required hereunder shall be sent to:

David J. Kolaz, P.E., Manager, Compliance & Systems Management Section,
Division of Air Pollution Control, P.O. Box 19276, Springfield, Illinois
62794-9276

IT IS SO ORDERED.

Within 45 days of the date of this order, or on or before May 5, 1997, petitioner shall certify that it accepts the terms of the variance by executing and forwarding to Christina Archer, Division of Legal Counsel, Illinois Environmental Protection Agency, P.O. Box 19276, 2200 Churchill Road, Springfield, Illinois 62794-9276, a certificate of acceptance and agreement to be bound by all of the terms and conditions of the granted variance. Such acceptance shall be signed by an officer of The D.B. Hess. Company, Inc., duly authorized to

bind The D.B. Hess Company, Inc., to all of the terms and conditions of the final Board order in this matter. The 45-day period shall be held in abeyance during any period that this matter is appealed. Failure to execute and forward the certificate within 45 days renders this variance void and of no force and effect as a shield against enforcement of rules from which the Board has granted relief.

CERTIFICATION

I (We), _____, hereby accept and agree to be bound by all the terms of the Order of the Pollution Control Board in PCB 96-194 dated March 20, 1997.

Petitioner

Authorized Agent

Title

Date

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1994)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of the date of service of this order. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill. Adm. Code 101.246 "Motions for Reconsideration.")

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the ____ day of _____, 1997, by a vote of _____.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board