

ILLINOIS POLLUTION CONTROL BOARD  
September 1, 1994

THE ENSIGN-BICKFORD COMPANY, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 93-139  
 ) (Variance)  
 ILLINOIS ENVIRONMENTAL )  
 PROTECTION AGENCY, )  
 )  
 Respondent. )

OPINION AND ORDER OF THE BOARD (by C. A. Manning):

This matter is before the Board pursuant to a petition for variance filed by the Ensign-Bickford Company (EBCO) on July 26, 1993. This variance request seeks to extend a prior variance we granted on August 22, 1991 in PCB 90-242 for an additional five year period, or until August 10, 1999.

Petitioner has received several variances from the Board which cumulatively allow for the open burning of certain explosive wastes at its Wolf Lake, Union County facility. On August 10, 1989, EBCO and the Trojan Corporation, both wholly-owned subsidiaries of Ensign Bickford Industries, were first granted a variance from 35 Ill. Adm. Code 263.102 and authorized to open burn explosive waste as permitted by 35 Ill. Adm. Code 237.103, for a period of five years. (EBCO v. IEPA (August 10, 1989) (PCB 88-156 and PCB 88-168) (cons.)) EBCO was also granted a variance to flash metallic process equipment and open burn other wooden process equipment on September 26, 1991, (EBCO and Trojan Corp. v. IEPA (September 26, 1991) PCB 91-96) and on August 26, 1990, EBCO also received a provisional variance in PCB 90-83 to allow the open burning of two wooden buildings contaminated with explosive material that were decommissioned as the facility was modernized. (EBCO v. IEPA (August 26, 1990) PCB-90-83.)

Except for the five-year extension, EBCO is asking herein, for the identical relief we granted in PCB 90-242. There, we allowed an increase in the amount of explosive waste and explosive-contaminated waste material that EBCO could open burn, due to a change in the packaging material received by EBCO. That variance also combined the EBCO and Trojan materials into a single set of limitations to allow greater operational flexibility. The August 22, 1991 variance is scheduled to expire August 10, 1994, and therefore, EBCO is seeking to continue open burning of explosive waste and explosive-contaminated waste, wood buildings contaminated with explosive material, and to thermally sanitize metallic process equipment contaminated with

explosive material. On July 13, 1994 the Agency filed a recommendation to grant the variance with the Board. The Agency has added certain conditions governing the activity at the site, and agrees the variance should be granted until August 10, 1999.<sup>1</sup>

For the reasons discussed below, the Board finds, pursuant to Section 35(a) of the Environmental Protection Act (Act), that EBCO has presented adequate proof that immediate compliance with the Board regulations for which relief is being requested would impose an arbitrary or unreasonable hardship. (415 ILCS 5/35(a).) Accordingly, the variance relief requested is granted subject to the conditions specified in the Board's order.

### Compliance Efforts

In our August 10, 1989 decision we found:

...the petitioners' compliance plan is to investigate possible methods of disposal during the variance period. If a technically feasible and economically reasonable disposal method is identified, the petitions will devise a time table to come into compliance. If an alternative to open burning is not found the petitioners will pursue an adjusted standard or a site-specific rule change. The Agency noted in its recommendation that explosives incinerators are used by explosives industry to render waste inert. However, the petitioners failed to consider the installation and operation of an explosives incinerator as an alternative compliance plan. The installation of an incinerator should be investigated during the variance period.

(PCB 90-242 (August 22, 1991) at 125-324, quoting PCB 88-156 and PCB 88-168 (cons.) (August 10, 1989).)

Additionally, according to Condition 4 of the Board's August 22, 1991, Order in PCB 90-242, we stated that EBCO,

"...upon ascertaining to a reasonable degree of certainty that there exists an alternative to open burning which is technologically and economically

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<sup>1</sup>EBCO and the Agency have been discussing the possibility of EBCO's pursuing an adjusted standard before the Board rather than EBCO's continued use of the "variance" mechanism. (IEPA Rec. 1t 6.) As such, the Agency also suggested that the variance be conditioned to terminate either on August 10, 1999, or on the effective date of the Board granting an adjusted standard. We accept the recommendation, and have incorporated this condition into our order.

feasible, shall implement this alternative to dispose of its explosive waste and explosive-contaminated waste. Such implementation shall occur not later than the expiration date of the variance."

While EBCO has determined that incineration of its explosive waste in a rotary kiln (an explosives incinerator) is an alternative to open burning which is technologically and economically feasible, the United States Environmental Protection Agency (USEPA) is not currently processing RCRA applications for new hazardous waste incinerators. This will prevent EBCO from permitting, constructing, and utilizing this alternative in any definite time period. Accordingly, EBCO requests this variance to allow the continued open burning of explosive waste and explosive-contaminated packaging waste.

In its "Variance Recommendation," the Agency points out that EBCO has discontinued open burning of solvent waste and disposes of it at a commercial RCRA treatment, storage and disposal facility. (IEPA Rec. at 2.) Additionally, the Agency notes that the petitioner does not have any outstanding state enforcement actions pertaining to air pollution presently before the Board or any circuit court. (Id at 3.)

#### Environmental Impact

EBCO operates an explosive products manufacturing facility, which occupies approximately 456 acres and is located outside the town of Wolf Lake, Union County, Illinois, bordering the Shawnee National Forest, Wolf Lake, and farmland. EBCO leases the land from Trojan, the owner of the property, and manufactures cast boosters, a Class A explosive, at the facility. The Wolf Lake facility is situated approximately one-half hour equidistant from Carbondale, Illinois and Cape Girardeau, Missouri. The town of Wolf Lake has a population of approximately 250 persons, and the nearest residence is approximately one-half mile from the EBCO facility. The nearest monitoring station, which is located twenty miles northeast of Wolf Lake, has measured no exceedences of the standard for total suspended particulates (TSP) for the past six years, and Union County is in attainment for all criteria pollutants.

In the course of manufacturing the explosives, "...waste explosives are generated in the form of off-specification product, explosive contaminated packaging materials, explosive contaminated wastewater treatment sludge, explosive contaminated spent activated carbon and explosive contaminated solvent from laboratory maintenance procedures." (Pet. at 6.) Petitioner states that the facility will conduct open burning of explosive waste, explosive contaminated waste, wooden buildings and thermal sanitizing of metallic equipment in such a time, place and manner as to minimize the emission of air contaminants. While open

burning of the waste will have some unquantifiable environmental impacts, open burning should not cause any violation of national air quality standards. The Agency agrees with this analysis. (IEPA Rec. at 3.)

#### Compliance with Federal Law

In accordance with provisions of Section 35 of the Act, the Board may grant variances only where they are consistent with federal law, in this case, the provisions of the Clean Air Act ( 42 U.S.C.A. par. 7401, et seq. (1983) and the 1990 Amendments to the Clean Air Act (P.A. 101-549)). The State of Illinois has not submitted 35 Ill. Adm. Code 237.103 to the USEPA as part of the State Implementation Plan (SIP) to attain and maintain primary and secondary air quality standards under the Clean Air Act ( 42 U.S.C.A. par. 7401, et seq. (1983) and the 1990 Amendments to the Clean Air Act (P.A. 101-549)). Consequently, granting the petition for variance will not require a SIP revision and is therefore consistent with federal law.

#### Hardship

In consideration of a variance, the Board is required, pursuant to Section 35(a) of the Act, to determine whether the petitioner has presented adequate proof that it would suffer an arbitrary or unreasonable hardship if required to comply with the Board's regulation at issue. (415 ILCS 5/35(a)(1992).)

EBCO notes that as a result of installing automated production lines, certain material handling equipment found to be inadequately built will be replaced and certain existing wooden manufacturing structures, all of which are contaminated with explosive materials, will be decommissioned. The petitioner notes that potential residues of nitrostarches, PETN and TNT may remain in the dead spaces and cavities of the equipment, and access to such spaces and cavities is extremely limited due to the nature of the materials which may remain. (See generally, Pet. at 7-11.) The Agency points out that "consistent with accepted practices in the explosive industry, the equipment must be treated as though it has the potential to explode, and thus (be) decontaminated, prior to disposal, reuse or sale." (IEPA Rec. at 4.) EBCO alleges that without a variance from the prohibition on open burning, it will be prevented from decontaminating the wooden building debris and equipment and, thus, from selling, reusing or disposing of the equipment, as it has no alternative to open burning for decontamination purposes.

EBCO historically has shipped PETN in metal drums; however, the U.S. Department of Transportation has changed the shipping requirement, HM 181, that applies to PETN. The new shipping requirement will go into effect on October 1, 1994. EBCO asserts that the new requirement will lead to an increase in the amount

of explosive-contaminated waste for disposal since, in order to comply with HM 181 in an economically feasible manner, it will have to use a corrugated cardboard container. (See generally, IEPA Rec. at 5.) Petitioner alleges that it needs an increase in the amount of material it is authorized to open burn in order to facilitate operation flexibility and to address concerns about complying with the RCRA 90-day storage limitation for hazardous waste, due to increased production and the use of new packaging materials. (See Pet. at 8.)

EBCO alleges that since construction of a new hazardous waste incinerator to handle explosive waste is not currently possible due to USEPA's policy of not giving priority to processing RCRA permit applications, any other manner of disposal of the explosive waste, explosive-contaminated waste and the wooden buildings poses a safety hazard due to the risk of explosion, is less environmentally sound and is more costly. (See generally, Pet. at 13-18.) EBCO cannot ship packaging waste off-site for disposal due to OSHA regulations, and it alleges it has been unable to find a landfill, disposal site, or incinerator for nonprocess waste such as demolished structures and equipment requiring flashing. (See IEPA Rec. at 5.)

The Board finds that, in the absence of a modification to the August 22, 1991 variance, EBCO will incur an arbitrary or unreasonable hardship. The Board will grant the petitioner a variance to open burn explosive waste and explosive-contaminated waste while continuing to investigate whether a hazardous waste incinerator can be permitted, constructed and operated.

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

#### ORDER

EBCO is hereby granted a variance from 35 Ill. Adm. Code 237.102 and authorization to open burn explosive waste as permitted by 35 Ill. Adm. Code 237.103, subject to the following conditions:

- A. Explosive waste and explosive-contaminated waste.
  1. Petitioner shall diligently pursue an alternative to open burning its explosive waste and explosive-contaminated waste.
  2. Petitioner shall submit to the Agency information pertaining to Condition #1 as soon as such information becomes available.
  3. At any time during the variance period, the Agency may identify new alternatives to open burning for

petitioner to evaluate for technological feasibility and economic reasonableness. The evaluation shall be completed and a report shall be submitted to the Agency in soon as practicipal after petitioner recieves notice of such new alternative.

4. Petitioner, upon ascertaining to a reasonable degree of certainty that there exists an alternative to open burning which is technologically and economically feasible, shall implement this alternative to dispose of its explosive waste and explosive-contaminated waste.
5. Petitioner shall take reasonable measures to minimize the contamination of materials during manufacturing operations.
6. Petitioner shall weigh and record all materials to be burned.
7. Petitioner shall maintain records with weekly totals, by specific type and weight of waste burned. A compilation of these records shall be submitted on a quarterly basis to the Agency. These records shall be available for Agency inspection at all times when petitioner is in operation.
8. The report in Paragraph 7 should be addressed to:  

Mr. John Justice, Regional Manager  
Bureau of Air  
Illinois Environmental Protection Agency  
2009 Mall Street  
Collinsville, Illinois 62234
9. Open burning shall take place on calm, clear days during daylight hours on which wind velocity is greater than two miles per hour but less than ten miles per hour.
10. Petitioner shall use cages to burn explosive-contaminated materials so that the dispersement of any ash is minimal. Petitioner shall maintain the cages so that the design function and efficiency of the cages is not substantially altered from the cages as built.
11. Petitioner shall promptly clean up and dispose of any ash after every burn in accordance with all RCRA requirements.
12. Petitioner shall use a concrete pad for open burning of K044 and K045 sludges to prevent residual waste and

waste constituents from contacting surface soils.

13. Petitioner shall comply with all RCRA and OSHA requirements.
14. Petitioner shall have fire prevention plans and equipment ready and in place at the facility prior to the first burn.
15. Open burning shall at all times be supervised. Petitioner shall train its employees in the proper procedures to be followed regarding the open burning. Additionally, training manuals delineating the procedures shall be readily available to employees and Agency inspectors.
16. Petitioner shall fence off the entire burn area prior to the first burn.
17. Petitioner shall notify the surrounding community, prior to the first burn, that there will be periodic open burning. A copy of the notification shall be sent to the Agency.
18. The above-mentioned notification shall include a telephone number for nearby residents to call in the event of any complaints.
19. Any complaints shall be forwarded to the Regional Office in Collinsville within twenty-four hours.
20. Petitioner shall not burn more than the following:

|                                  |               |
|----------------------------------|---------------|
| Materials to start fires         | 100 lbs/week  |
| Explosive-contaminated materials | 5000 lbs/week |
| Pyrotechnic materials            | 50 lbs/week   |
| Combined TNT and PETN waste      | 50 lbs/week   |
| Pentolite waste                  | 1000 lbs/week |
| Composition B waste              | 150 lbs/week  |

#### B. Wooden Manufacturing Buildings

1. Petitioner shall remove the roofing materials from the "North Booster," the "South Booster," and the "Dryer" buildings prior to burning the structures.
2. Petitioner shall remove all explosive waste materials from the buildings prior to burning the structures.
3. Petitioner shall not burn two buildings on the same day.
4. Petitioner shall only burn a building on calm, clear

days when the wind velocity is greater than two miles per hour but less than ten miles per hour.

5. Petitioner shall promptly clear the site of resultant ash after it has burned each building.
6. Petitioner shall have fire prevention plans and equipment ready and in place at the facility when it burns a building, as described in its April 11, 1990, variance request to the Agency (Pet. Exh.D).
7. Petitioner shall notify the Agency, the local fire department, and the county forestry service of the exact date and time when the proposed burning will occur, at least seventy-two hours in advance of when it is intended to occur.
8. Petitioner shall submit notification pursuant to 40 C.F.R. 61 Subpart M at least 10 working days prior to demolition.

C. Material Handling Equipment

1. The open burning site shall be limited to that site referenced in the Petition.
2. Petitioner shall limit the amount of clean fuels to that necessary to flash the equipment of explosives.
3. Heat-sensitive devices shall be placed in the equipment to be flashed to ensure temperature control.
4. The flashing operations shall be completed within eight weeks of the automated process building equipment being rebuilt.
5. Petitioner shall forward written notification to the Regional Office in Collinsville within five business days after the rebuilding is completed.
6. Petitioner shall comply with requirements A-9, A-11, A-13, A-14, A-15, and A-19 whenever flashing is conducted.

D. Duration

1. This variance shall expire on August 10, 1999, or the effective date of an adjusted standard for EBCO, whichever shall occur first.

IT IS SO ORDERED.



If petitioner chooses to accept this variance, within 45 days Within 45 days after the date of this opinion and order, Petitioner shall execute and forward to:

James J. O'Donnell  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

a certificate of acceptance and agreement to be bound by all the terms and conditions of the granted variance. 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. The form of the certificate is as follows:

I (We), \_\_\_\_\_, having read the opinion and order of the Illinois Pollution Control Board, in PCB 93-139, dated September 1, 1994, understand and accept the said opinion and order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

\_\_\_\_\_  
Petitioner

\_\_\_\_\_  
By: Authorized Agent

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Section 41 of the Act (Ill. Rev. Stat. 1989, ch. 111-1/2 par. 1041; 415 ILCS 5/41) provides for appeal of final orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 13<sup>th</sup> day of September, 1994, by a vote of 6-0.

Dorothy M. Gunn IAW  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board