

ILLINOIS POLLUTION CONTROL BOARD
September 26, 1991

THE ENSIGN BICKFORD COMPANY,)	
)	
Petitioner,)	
)	
v.)	PCB 91-96
)	(Variance)
)	
ILLINOIS, ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

LISA MARIE ANDERSON, GARDNER CARTON & DOUGLAS APPEARED ON BEHALF OF PETITIONER; JULIE ARMITAGE APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter is before the Board on petitioner's ("EBC") variance request filed on June 14, 1991. EBC is seeking a variance pursuant to 35 Ill. Adm. Code 237.103 in order to open burn wooden process equipment and to thermally sanitize or "flash" piping and metallic process equipment suspected of containing residues of potentially contaminated materials. Although EBC has been granted two variances in the past for open burning (PCB 88-156, 88-168, consolidated and PCB 90-242), the company seeks a new variance because the equipment requiring "flashing" and the location of the open burning area were not referenced in the previous petitions.

EBC is an explosives manufacturer with operations at a facility located outside of the town of Wolf Lake in Union County, Illinois. EBC is a wholly-owned subsidiary of Ensign-Bickford Industries ("EBI"). The explosives manufacturing plant is located thirty minutes equi-distant between Carbondale, Illinois and Cape Girardeau, Missouri on approximately a 450-acre site. The facility is bordered by Shawnee National Forest on the North and East, Wolf Lake on the West and Illinois Route 3 and farmland on the South. The nearest residence is approximately one-half mile from the facility. Wolf Lake has a population of approximately 250 people. Both Union County and all of its neighboring counties are attainment areas for all criteria pollutants. The petitioners note that the nearest air monitoring station is located in Carbondale, approximately twenty miles away. There have been no violations of particulate standards at this station in the last three years.

EBC manufactures explosive devices with non-electric blasting caps in an assembly-line process at the plant. The process also includes packaging and storage activities. EBC generates small quantities of waste creating a potential risk of explosion in the

course of manufacturing the Nonel Primadet Assemblies. This waste takes the form of off-specification product, packaging materials, and explosive contaminated laboratory waste. Explosive-contaminated solvents and waste water result from EBC's routine cleaning, repair and maintenance functions. The waste water contains explosive HMX aluminum particles.

EBC proposes to sanitize, through open burning, a wide assortment of process tanks, pumps, piping and wooden artifacts that have been extracted from the manufacturing processes over the years due to age, product modifications and process improvements. This equipment has been stock-piled at the facility in what has commonly become known as the "bone yard". It is suspected that potential residues of Nitrostarches, PETN and TNT may remain in the dead spaces and cavities of this equipment. Due to the structure of the bone yard and the equipment itself, access to these cavities is extremely limited and also prohibitive due to the nature of the materials which may remain. It is estimated that between five and ten pounds of these materials are dispersed in approximately 50 tons of equipment. EBC proposes a series of separate "flashing" operations to be completed within one year of the date on which the variance is granted. The company intends to burn the waste off the equipment in order that it can be reused or sold. Even though EBC will not be able to sell or use all of the equipment upon decontamination, the company is presently unaware of any landfill, disposal facility or incinerator which would accept this equipment for treatment.

Environmental Impact

Due to the limited nature of the project, EBC believes that the open burn will not cause or contribute to any violation of the ambient air quality standards or cause any environmental impact. The Agency concurs with this analysis. Further, EBC is planning to take sufficient precautionary measures to minimize any effect from open burning on human health and plant and animal life in the area. The open burn area will be located south of all process buildings in an agricultural portion of the Wolf-Lake facility. A minimum distance of 1,250 feet will be maintained between the open burn area and all public routes, railroads, process buildings and private properties.

Open burning will take place only on calm clear days on which wind speeds are anticipated to be less than 10 miles per hour. With wind speeds at or below this range, EBC submits that the risk of environmental harm or extensive dissemination is inconsequential. The local fire department and county forestry service will be notified as to the exact dates and times of the burns to ensure against the unlikely event of fire escaping the controlled area. Further, EBC has instituted the following procedures to control the fires: (i) access to internal communications or alarm systems; (ii) a convenient telephone or

hand held radio to summon emergency assistance for the personnel stationed around the area; (iii) portable fire extinguishers, and (iv) access to water via Wolf Lake and a 32,000 gallon water tower. The plant fire truck will also be available in the event of an emergency.

As an alternative to open burning, EBC could continue its process of stock-piling the equipment in the bone yard. However, as the objective is to either sell, reuse, or dispose of this equipment, continued storage does not seem to be a feasible alternative. Both the Agency and EBC assert that solvent washing of this equipment will generate a greater amount of waste to be disposed and will not insure adequate decontamination. Therefore, emissions from solvent washing could have an even greater negative impact on the health, safety and welfare of the community and the environment than the controlled open burning. In fact, EBC maintains that very few companies in the explosive industry pursue this course of action because the mixing of the chemical compounds is itself exceptionally hazardous. As a result, the only alternative to open burning would be to maintain the bone yard as it currently exists.

Hardship

Essentially, the prohibition on open burning enumerated at the 35 Ill. Adm. Code 237.102 is forcing EBC to take no action regarding this equipment. The insignificant air emissions which would result from the open burning of these materials would not cause or contribute to exceedance of the ambient air quality standards. As mentioned above, EBC is unaware of any other method of sanitizing this equipment in order to reuse, sell, or dispose of the materials. EBC is also unaware of any transporter or disposal facility which would accept this material "as is". Any other compliance option which may be available would undoubtedly have a greater potential for inadvertent explosions and greater air emissions, far outweighing those which would be presented by an open burn. Finally, these as yet unknown alternatives would be substantially more burdensome in terms of expense than open burning. Therefore, the company argues that granting of this variance would benefit not only EBC, but the public as well.

Consistency with Federal Law

Both the Agency and EBC submit that emissions which would result in the open burning of the company's bone yard would not cause or contribute to any violation of the National Ambient Air Quality Standards. Further, 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. Thus, grant of this variance will not require a SIP revision. Finally, the burning will be done in compliance with EBC's permits issued

under the Resource Conservation and Recovery Act.

Conclusion

The Board finds that due to the structure of the bone yard and the equipment therein, access to such spaces and cavities is extremely limited and prohibitive due to the nature of the materials which may remain. Consistent with accepted practices in the explosive industry, the equipment should be treated as though it has the potential to explode. It therefore should be decontaminated prior to disposal, reuse or sale. Because there exists no alternative to open burning this particular equipment, we find that EBC would suffer an arbitrary or unreasonable hardship absent the grant of this variance. Further, we find that the issuance of this variance is consistent with federal law for the reasons mentioned above. Finally, we conclude that the environmental impact, if any, will be negligible. Accordingly, we will grant this variance subject to certain conditions.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

Ensign-Bickford Company is hereby granted a variance pursuant to 35 Ill. Adm. Code 237.103 for its Wolf Lake Facility, subject to the following conditions:

1. The open burn site shall be limited to that site referenced in the Petition.
2. Petitioner, shall limit the burn to only the explosive contaminated equipment referenced in the petition, specifically:

Total dunnage	=	172,800 lbs
Explosives	=	100 lbs
Materials consumed	=	2,000 lbs
Total Pounds	=	174,900 lbs
Total Tons	=	87.45 tons

3. Petitioner shall limit the amount of clean fuels burned to that necessary to flash the equipment of explosives.
4. Heat sensitive devices shall be placed in the equipment to be flashed to ensure temperature control.
5. The burns and possible re-burns referenced in the petition shall be conducted within one year of the date

of this Order.

6. Open burning shall take place on calm clear days on which wind velocity is greater than 2 miles per hour but less than 10 miles per hour.
7. Open burning shall take place only during daylight hours.
8. Petitioner shall comply with all RCRA requirements.
9. Petitioner shall have fire prevention plans and equipment ready and in place at the facility prior to the first burn.
10. 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.
11. Petitioner shall notify the surrounding community, including the local fire department and county forestry service, of the exact dates and times of the burns. A copy of such notifications shall be sent to the Agency.
12. The above mentioned notifications shall include a telephone number for nearby residents to call in the event of any complaints.
13. Petitioner shall use wire mesh screen over the materials to be burned.
14. Any complaints shall be forwarded to the Regional Office in Collinsville within 24 hours.
15. This variance shall expire one year from the date of this Order.
16. Within 45 days after the date of this Opinion and Order Petitioner shall execute and forward to:

Julie Armitage
Division of Legal Counsel
Illinois Environmental Protection Agency
2200 Churchill Road, P.O. Box 19276
Springfield, Illinois 62794-9276

a certificate of acceptance of this variance by which it agrees to be bound by the terms and conditions contained herein. The 45 day period shall be in abeyance for any period during which the matter is appealed. This

variance will be void if the Petitioner fails to execute and forward the certificate within the 45 day period. The form of the certification shall be as follows:

CERTIFICATION

I, (We), _____, having read the Opinion and Order of the Illinois Pollution Control Board, in PCB 91-96, dated September 26, 1991, 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

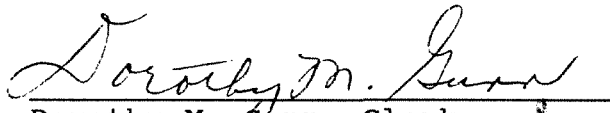
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Date

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

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 26th day of September, 1991 by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board