

ILLINOIS POLLUTION CONTROL BOARD
September 26, 1972

OLIN CORPORATION)
)
 v.) #72-281
)
 ENVIRONMENTAL PROTECTION AGENCY)

OPINION AND ORDER OF THE BOARD (by Samuel T. Lawton, Jr.):

Olin Corporation has filed a petition for variance from the Open Burning Provisions of Section (9) (c) of the Environmental Protection Act and Section 505, Part V, Chapter 2 of the Board regulations, in order to be allowed to burn 65 powder-contaminated buildings at its East Alton plant and to decontaminate approximately 10,000 square feet of powder-contaminated ground within a 120 day period.

The 65 buildings involved are frame structures erected during World War II as temporary buildings and have been used for the loading and assembly of military squibs, detonators, fuses, flares and other military items. This use terminated in 1970 after a period of approximately 30 years. All of these buildings have been used for the handling and processing of dry explosives including Lead styphnate, tetracene, service lead azide, dextrinated lead azide, polyvinyl alcohol lead azide, CMC lead azide (RD 1333), diazodinitrophenol, smokeless powder, black powder, cyclonite (RDX), HMX, pyrotechnic mixes, zirconium mixes, mercury fulminate, pentaerythritoltetranitrate, tetryl, and TNT (trinitrotoluene).

Contamination of the buildings by these explosives has resulted from dusting and loss of materials and dangerous explosive contamination continues in these buildings, notwithstanding extensive cleaning and decontamination procedures employed by petitioner over the period of their use.

The buildings are presently abandoned and in the process of deterioration. Petitioner represents that it desires to decontaminate and remove all buildings from the property because they presently constitute a fire and explosion hazard and preclude the use of other adjacent buildings for purposes desired, including the storage of gun powder. Removal of the buildings other than by open burning increases the likelihood of flash fires and explosions constituting an extreme hazard to workmen involved. In 1954 such accidents did take place when dismantling and removal were undertaken without prior decontamination by open burning. Furthermore, if dismantling is in fact achieved without

accident, later burning of the dismantled materials could create the likelihood of explosion and attendant dangers.

Under the proposed program, the buildings would be burned using a small quantity of sprayed #2 fuel oil. Petitioner's fire department should be on the site to protect adjacent buildings and neighboring community fire departments would be placed on a standby basis to prevent the spread of fire. Petitioner proposes a burning schedule that would limit the rate of burning as follows: each of two larger buildings (T-129 and T-130) would be burned on separate days on which no other burning would occur. The remainder of the buildings would be burned at a rate not to exceed 1,500 square feet of buildings per day. A burning index has been developed by Olin which has been used as a guide for predicting favorable burning days and burning will be done only on days when atmospheric and dispersion conditions are suitable to prevent the spreading of fire and creation of smoke nuisance.

Included in the petition is a table indicating the weight of materials to be burned at a total of 191.3 tons. Petitioner believes that no air pollution will result from the proposed burning program, although some smoke will emanate from the burning of construction paper, roofing material and fuel oil used to initiate combustion.

In addition to the open burning of the buildings, petitioner seeks a variance in order to decontaminate an area of ground of approximately 10,000 square feet which has been used for the past 35 years for the open burning of scrap explosives. Explosive contaminants still remain in this area and no alternative method of decontamination is available other than by open burning. Any effort to remove the contaminated ground or treat it would produce the danger of flash fires and explosion. To burn this area, petitioner proposes to use a small quantity of explosive contaminated scrap lumber. The burning of the scrap lumber and the ground decontamination would all occur on one day.

All residential structures are at least 1,000 feet distant from any burning area. Residents interviewed by the Agency expressed no opposition to the grant of the variance. Petitioner represents that no suitable alternative exists to the open burning proposed by this variance request. No suitable means of incineration are available and building dismantling would produce attributes of danger above referred to. All burning would take place within a 120 day period from the granting of the variance.

The Agency recommends that the variance be allowed subject to certain conditions, most of which we adopt, but that the contaminating powder in the buildings be "flash fired" rather than having the buildings completely burned. We do not feel this presents a reasonable alternative. Efforts to flash fire the explosive material could create the very dangers that

petitioner seeks to avoid. The likelihood of explosion or fire would exist during dismantling operations if any explosive-contaminated materials remained, or if explosive-contaminated materials were incinerated explosion could result in that location.

We have considered variances of the sort Petitioner proposes in earlier opinions of the Board. See *Olin v. EPA*, #70-25 dated December 22, 1970. There we said:

"The evidence indicates that an extremely dangerous situation exists at the subject site in its present condition. Demolition of structures without previously igniting the powder-contaminated portions would create a substantial danger to the workmen engaged in the dismantling operation, with possible flash fires resulting from the wrecking process... Lastly, the exposed powder on the ground presents the potential of serious danger to personnel and property in its present condition. The alternatives confronting Petitioner are to either allow the present condition to continue with the attributes of danger described above, dispose of its powder in enclosed facilities which will create explosion and danger of major proportions, or to endeavor to dispose of the structures and powder under a controlled program employing the maximum degree of safety and utilizing meteorological information to minimize the danger and burden on the surrounding area. While the impact of the burning will be primarily on Olin's facilities, there are residential areas that would be affected if the burning is not properly controlled.

Evidence of witnesses indicates that the state of the arts has not reached a point where there is any suitable alternative to open burning of explosive wastes and certainly not in the quantities involved in the present case. (See testimony of Dr. Robert E. McComb, Affidavit of T. F. McDonnell attached to the Petition for Extension of Variance.) The state of the arts relative to disposal of explosive wastes was considered and discussed in substantial detail in Case No. PCB70-11, Application for Extension of Variance of Olin Corporation, which variation related to the Winchester-Weston Division.

Based upon the evidence adduced at the Hearing and the matters set forth in the Petition and Affidavit, it is the opinion of the Board that the Petitioner has satisfied the statutory requisites for a granting of a variance. Explosive waste previously generated by Olin's operation and the powder-contaminated structures cannot be disposed of at the present time other than by open burning. No suitable incineration method or other means

of disposal appear available. Prohibition of disposal by open burning of the structures and the explosive wastes would constitute an arbitrary and unreasonable hardship. To prevent the disposal would result in a continuing condition of danger to person and property and to increase the likelihood of water pollution. Insistence on enclosed burning of explosive waste at the present time is unrealistic and would impose a hardship on Petitioner disproportionate with any public benefit achieved."

We believe the same reasoning applicable to the facts of the present case and accordingly grant the variance as requested subject to the terms and conditions hereafter set forth. Because of the nature of the variance requested, no bond will be required.

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

It is the order of the Pollution Control Board that the Petitioner Olin Corporation be granted a variance from the provisions of Section (9) (c) of the Act and Section 505, Part V, Chapter 2 of the Board regulations for a period of 120 days from the date of this order to burn in the open 65 powder-contaminated buildings and approximately 10,000 square feet of powder-contaminated ground subject to the following terms and conditions:

1. The burning period shall not exceed 120 days and shall be completed by January 1, 1973, pursuant to schedule as proposed.
2. Burning shall be conducted only on days when wind direction, wind speed and meteorological conditions are such that air pollution and impact on adjacent areas will be minimized.
3. Petitioner shall notify the regional office of the Agency prior to any burning permitted by this variance.
4. Petitioner shall submit a final report to the Agency in writing no more than thirty (30) days after completion of the burning.

I, Christan L. Moffett, Clerk of the Pollution Control Board, certify that the Board adopted the above Opinion and Order on the 10th day of September, 1972 by a vote of 5 to 0.

Christan L. Moffett