

ILLINOIS POLLUTION CONTROL BOARD
May 3, 1973

OLIN CORPORATION,)
)
 Petitioner,)
)
 v.) PCB 73-87
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

OPINION AND ORDER OF THE BOARD (by Mr. Seaman):

Petitioner operates a facility in Marion, Williamson County, for the manufacture of various propellant and pyrotechnic devices sold mainly to the U. S. Department of Defense. The subject of this petition for variance is the open burning of explosive waste of a new product Petitioner plans to introduce to its Williamson County facility. This product will be the assembly or "load and pack" of intermediate caliber ammunition, including high explosive incendiary ammunition for military use. Petitioner plans to install the capacity to assemble 11,000 rounds of ammunition per eight-hour work shift. Petitioner indicates that it will generate 15.7 pounds of high explosive RDX slurry type scrap per shift.

Petitioner alleges that there is no known method of safe disposal of this waste except by open burning. RDX possesses such a high energy of detonation as to make burning it in a closed vessel extremely hazardous. However, Petitioner does state that it will investigate other feasible alternatives to open burning during the period of the variance.

No data is available to Petitioner concerning the actual products of combustion of RDX. However, if sufficient oxygen were present to allow complete combustion, the theoretical products of combustion of 15.7 pounds of this scrap are alleged to be:

Carbon dioxide	6.8 lbs.
Water	2.5 lbs.
NO _x (as NO ₂)	12.4 lbs.
Aluminum oxide	9.8 lbs.

The Agency agrees with Petitioner's estimates.

In its Recommendation, the Agency states that the explosive RDX waste is at all times kept completely submerged in water to prevent explosion; that the material cannot be transported over great distances because of its explosive nature; and that the open burning site is in a remote abandoned strip mine. This is the same site where Petitioner open burns pyrotechnic waste under a variance granted by the Pollution Control Board. The Agency has received no complaints from the public as a result of Petitioner's past open burning practices.

Petitioner is unable to estimate the cost of compliance since no method of compliance is presently known. Petitioner is further unable to state what injury, if any, would be caused by open burning of the scrap here involved. However, Petitioner alleges that open burning of small quantities of RDX scrap in other states has not caused any noticeable damage or caused any complaints to Petitioner.

Olin Corporation believes that the denial of a variance under this petition would impose an arbitrary and unreasonable hardship. Petitioner knows of no safe means other than open burning to dispose of the explosive scrap here involved. This material becomes less stable with age, and storage would merely increase a fire and explosive hazard. The inability to dispose of this scrap would require Petitioner, for safety reasons, to stop production of the item generating the scrap.

In view of the relatively small amount of waste under consideration, the current lack of technically feasible alternatives to open burning and Petitioner's pledge to pursue and implement methods to achieve compliance, this Board is disposed to allow the variance requested, subject to certain conditions.

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

IT IS THE ORDER of the Pollution Control Board that a variance be granted to Olin Corporation as requested for a period of one year from the date of this opinion subject to the following conditions:

- (a) Petitioner shall limit the amount of material to be open burned to that amount stated by Petitioner in its variance request.
- (b) Whenever possible, Petitioner shall limit its open burning to such times when atmospheric conditions will readily dissipate any contaminants.

(c) Within 30 days of the date of this Order, Petitioner shall submit in writing a progress report to the Agency. Said report shall contain:

- 1) Any complaints received by Olin concerning the open burning of the RDX;
- 2) Progress made toward implementing a program of eliminating the open burning of the RDX;

said reports shall continue monthly during the term of this variance.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted by the Board on the 3rd day of May, 1973, by a vote of 4 to 0.

Christan L. Moffett

