

ILLINOIS POLLUTION CONTROL BOARD
September 20, 1979

INTERNATIONAL MINERALS & CHEMICAL)
CORPORATION,)
)
Petitioner,)
)
v.) PCB 79-150
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

OPINION OF THE BOARD (by Dr. Satchell):

This matter comes before the Board upon a variance petition filed July 30, 1979 by Petitioner International Minerals and Chemical Corporation (IMC), a New York corporation authorized to do business in Illinois. IMC requests, pursuant to §35 of the Environmental Protection Act (Act) and Procedural Rule 401, a variance from Rule 505 of Chapter 2: Air Pollution, which provides for open burning of explosive wastes. On August 27, 1979, IMC filed a motion to expedite which cited the "serious nature of the aging military explosive" as grounds for prompt action on the variance request. On August 29, 1979 the Environmental Protection Agency (Agency) recommended that the variance be granted with conditions. In an Order entered September 6, 1979 the Board granted the requested variance, subject to certain conditions. No hearing was held and no public comments have been received.

IMC operates a 608 acre plant in the Crab Orchard National Wildlife Refuge in Sections 6 and 7 of T. 10 S., R. 2 E. and Sections 1 and 2 of T. 10 S., R. 1 E., 3 PM about 5.5 miles from Marion in Williamson County. The plant employs twenty-four persons in the storage and distribution of explosive products. Apparently production of explosives at the site ceased in May, 1971. Three similar open burning variances have been granted IMC for the plant: PCB 71-57, PCB 76-259 and PCB 77-229. In a related action IMC requests a variance for open burning of explosive wastes and contaminated packaging material at its production facility about twenty-eight miles away in Union County (PCB 79-176).

The petition requests a variance to permit open burning of an estimated 4,000,000 pounds of deteriorated flashless, non-hygroscopic propellant (FNH), which is a mixture of nitrocellulose and dinitrotoluene with small amounts of stabilizers and other compounds. Nitrocellulose decomposes with time and the rate of decomposition

increases as the decomposition proceeds. Addition of a stabilizer to the explosive during manufacture leads to a product which may be safe for decades. However, the stabilizer concentration decreases as time passes. When the stabilizer concentration reaches certain levels, the Army recommends destruction within one year or immediately. The latter alternative is indicated for some of the FNH stored on the site.

IMC proposes to burn the FNH according to Army procedures. The explosive will be spread out on straw in a cleared area, the straw will be soaked in fuel oil and ignited with a squib. The FNH will be burned between 8:00 a.m. and 3:00 p.m. in 5000 pound lots, up to 20,000 pounds per day. The burning will be conducted by trained personnel. The Agency recommends that two trained persons be on the site with adequate fire fighting equipment and that the neighboring fire departments be placed on a standby basis. Since the burning will occur within the Crab Orchard Refuge, the Board will require notification of the Fish and Wildlife Service of the United States Department of the Interior.

The plant is located in a prevention of significant deterioration (attainment) area for particulates, ozone, sulfur dioxide, nitrogen dioxide and carbon monoxide. The nearest Agency air monitoring station is in Marion.

The petition included no information on the effect the burning is expected to have on air quality in the region. The Agency recommended that the variance be conditioned on IMC providing an expert's assessment of the effect of the burning. Two days prior to the filing of the Agency recommendation, IMC filed supplemental air emission and air quality data. Since the Agency had insufficient opportunity to comment on these data prior to entry of the Board's Order, the variance was conditioned on providing the additional data. This condition will be deemed satisfied unless the Agency objects promptly.

The data IMC presented was based on burning of a similar material. The FNH is expected to burn quickly, producing a high temperature and little soot. The decomposition products will be nitrogen, carbon dioxide, oxygen, water and 1.6% carbon monoxide. IMC estimated that the FNH will generate 420 pounds of carbon monoxide per day based on 20,000 pounds burned. IMC also estimated that burning sixteen bales of straw per day will release another 76.8 pounds of carbon monoxide along with 13.2 pounds of particulates and 10.2 pounds of hydrocarbons. Dispersion estimates based on these data indicate that no violation of ambient air quality will occur.

The Agency requested that it be notified by telephone each day prior to burning. The Agency will have the right to order the burning postponed on account of unfavorable weather or ambient air quality. IMC will also be required to provide quarterly reports of its burning activities. IMC estimated that it will require eighteen months to complete the burning, allowing sufficient time for unfavorable days.

IMC's petition does not discuss alternative methods of disposal. One such alternative is burning in an incinerator. Olin Corporation operates an explosive incinerator near Marion which is close to the site. This facility is the subject of a site-specific regulation in PCB R78-9. Olin indicated to the Agency that it could accept only fifteen pounds of FNH per day for destruction. This is far short of the required capacity. It would also take too long to require IMC to construct a similar facility on the site. The Board finds that because of the hazard posed by the FNH and the lack of a practicable alternative method of disposal an arbitrary and unreasonable hardship has been shown.

The FNH has been stored on the site for a long time and is not a product of IMC's current operations. IMC apparently first became concerned about the FNH on receipt of a March 14, 1979 letter from the Fish and Wildlife Service. Four and one-half months later this was presented to the Board as an emergency which could not await the usual ninety day time schedule for variance proceedings. Such emergencies disrupt schedules and do not permit adequate time for consideration of the issues presented. In explosive burning cases the delay effectively erodes the standard of review since the gravity of the hardship necessarily increases as the explosive ages. Accordingly, the Board required as a condition of this variance that IMC provide the Agency with a list of materials stored at the site which may require open burning within the next five years. Although IMC cannot know this with absolute certainty, the Board expects it to make a good faith effort to identify its future problems. Hopefully this will enable the parties to conduct more orderly proceedings in the future.

This Opinion, supporting the Order of September 6, 1979, constitutes the Board's findings of fact and conclusions of law in this matter.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion was adopted on the 20th day of September, 1979 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board