

ILLINOIS POLLUTION CONTROL BOARD  
March 2, 1978

IMC CHEMICAL GROUP, INC.            )  
  )  
                                  Petitioner,    )  
  )  
v.                                        )       PCB 77-229  
  )  
ENVIRONMENTAL PROTECTION AGENCY,    )  
  )  
                                  Respondent.    )

OPINION AND ORDER OF THE BOARD (by Dr. Satchell):

On September 9, 1977 Petitioner, IMC Chemical Group, Inc. filed a petition for variance from Rule 505 of the Board's Chapter 2: Air Pollution Regulations. The request is to allow the open burning of several buildings. The recommendation of the Environmental Protection Agency (Agency) was filed with the Board on October 17, 1977. Subsequently an amended variance petition was filed on January 5, 1978 and an amended recommendation was filed by the Agency on February 8, 1978. A further response was filed by IMC on February 27, 1978. The Board has granted previous variances at this site in PCB 71-57 and PCB 76-259. In this latter case, decided January 6, 1977, Petitioner was granted a variance to burn twenty-four buildings and four powder ponds in a six-month period.

Petitioner did operate a plant at this site, consisting of approximately 608 acres near Marion, Williamson County, Illinois, where explosive products are stored for distribution by its Trojan Division. Explosives have been produced at the plant since approximately 1963 to May 1971. Petitioner leases the plant from the United States Department of Interior, Fish and Wildlife Service, Bureau of Sport Fisheries (Department).

During the time period of the previous variance seventeen of the twenty-four buildings were decontaminated. The reasons for not decontaminating all the buildings and ponds as requested include that the Department delayed decontamination due to unsuitable weather conditions; the Department further instructed Petitioner to decontaminate two additional buildings (24-a and 69); and revision of the burning procedures for the powder ponds by the Department. Petitioner now has eight buildings in need of decontamination. These buildings have not been used since 1971. Prior to 1971 for a period of approximately sixteen years these buildings were used for the handling and processing of explosives including: nitroglycerin dynamite (DYN), nitroglycerin (NG), nitrocellulose (NC), pentaerythritol tetranitrate (PETN), cyclonite (RDX), trinitrotoluene (TNT), lead azide, lead styphnate and mixtures of

the aforementioned such as Torpex, HBX and FNH. The buildings need to be decontaminated because they constitute a fire and explosion hazard rendering the immediate area unusable and unsafe.

Additionally, certain explosives and explosive materials stored at the plant have in the past fourteen years become obsolete. These explosives are unfit for reworking into new products and are a significant safety hazard and are also in need of decontamination.

The only safe way to decontaminate the facilities and obsolete explosives is by open burning or flashing. Without burning it is impossible to remove or desensitize all explosives from cracks in the concrete or from absorption into the wood or to complete any and all requirements to decontaminate the facilities. Any other means of decontamination would create extreme danger for the workmen involved in the operation.

To decontaminate the buildings Petitioner will remove parts of the flooring to remove major concentrations of explosives. These parts would then be taken to the burning ground to be open burned. Small amounts of No. 2 fuel oil would be added to the parts to aid in both combustion and desensitizing the nitroglycerin and then igniting the same. The remaining wall liners and floor inside the buildings will be burned by filling the buildings with six inches of straw and/or paper and spraying small amounts of No. 2 fuel oil over the area and then igniting the same.

The obsolete explosives present considerable hazard and should be burned in relatively small increments. Petitioner suggests utilizing two burn sites where two strips of powder would be placed each approximately 3 inches by 15 inches and 20 to 40 feet long. The two parallel strips spaced about ten feet apart would be ignited simultaneously. The burn time is estimated at approximately twenty minutes. The decontamination personnel would move to the second burn site after burning is completed at the first site. Petitioner estimates that less than 1,000 pounds of explosives can be safely destroyed per burn day by this procedure. The areas adjacent to the burn sites will be cleared of brush to minimize the risk of fire.

Four trained men will be on the site equipped with adequate fire hydrants and hoses to provide fire protection. The neighboring fire department will be placed on a standby basis to prevent the spread of fire. The open burning will be conducted under the direction of personnel trained in decontamination procedures and will be done between the hours of 8:00 A.M. and 3:00 P.M. Petitioner estimates that the open burning and flashing would occur at a maximum of three times per week and that the amount of material to be burned on each individual occasion would vary from a minimum of less than a ton to a maximum of fifteen tons.

Petitioner avers that the burning will not create significant amounts of air pollution. Minor amounts of particulate matter will be generated by the burning of the fuel oil, straw, paper and wood. The Agency indicates that the nearest residence is approximately 0.48 miles south of the burning site. Marion, Illinois, located approximately 5.5 miles northeast of the facility, has a population of 12,900. No other similar emission sources are located near the facility and the major portion of the surrounding area is in the Crab Orchard Wildlife Refuge. There are no reliable emission factors available for the materials contemplated in the petition: lumber, straw, explosive wastes and fuel oil along with miscellaneous rubber and plastics. In the Illinois Annual Air Quality Report, 1976, there were no excursions beyond the air quality standards for particulates, nitrogen dioxide and sulfur dioxide at Marion, Illinois. The Agency states that though Marion air may be typical of the general quality of the air in the surrounding area that it does not believe that the Marion data can be relied upon to determine that there are no violations of air quality. However, the Agency believes that with the relatively small amount of pollutants to be burned and the Agency's recommended time period of six months that chances of air quality standards violations are minimal.

The Agency did not receive any citizen complaints from the burning done under PCB 76-259. The Agency does agree that Petitioner will suffer an arbitrary and unreasonable hardship if not granted this variance. Petitioner's employees would be exposed to the possibility of explosions if any other method of decontamination is used. The Agency recommends the grant of a six month variance subject to several conditions.

The Board finds that Petitioner would suffer an arbitrary and unreasonable hardship if not granted this variance. The Petitioner has requested a variance period of one year. The Agency has recommended six months. The Board notes that PCB 76-259 was for six months but because of varying factors the time was not long enough. This time there are fewer buildings to burn. The Board will grant the variance for a period of six months with respect to the buildings and for a period of one year with respect to the obsolete powder. This should allow Petitioner ample time to make the requested decontaminations with minimum risk to the environment and to their personnel. Petitioner will be required to follow the conditions set forth in the order.

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

#### ORDER

It is the Order of the Pollution Control Board that the IMC Chemical Group, Inc. is granted a variance from Rule 505 of Chapter 2: Air Pollution Regulations for a period of six months with respect to the buildings and one year with respect to the obsolete powder subject to the following conditions:

1. That only the material and buildings listed in the amended petition be burned.
2. That during such burning time Petitioner will have four (4) trained men on site who will be equipped with adequate fire fighting equipment to provide fire protection, and the neighboring fire department will be placed on a standby basis to prevent the spread of fire.
3. The burning will be conducted under the direction of personnel trained in decontamination procedures and will be conducted between the hours of 8:00 A.M. and 3:00 P.M.
4. That no more than one specific building site or no more than two specific obsolete powder burning sites be burned per day.
5. At least three (3) days prior to each scheduled burning, the Petitioner shall notify the Regional Office of the site to be burned and the estimated material involved. 115A West Main Street, Collinsville, Illinois 62234 - telephone: 618/345-0700.
6. The Petitioner shall notify the Agency's Region IV Office via telephone 618/345-0700 on the day of the scheduled burning before burning takes place.
7. If ambient air quality or weather conditions are not favorable to burning, the Agency through its manager of the Region IV or his representatives shall have the right to instruct Petitioner to postpone the burning until improved conditions warrant the scheduling of the burning period.
8. Petitioner shall file monthly written reports to the Agency on the first of each month detailing the buildings and materials burned during that period.
9. Within 45 days after the date of this Board Order herein the Petitioner shall execute and forward to John D. Williams, Illinois Environmental Protection Agency, Enforcement Programs, 2200 Churchill Road, Springfield, Illinois 62706 a Certification of Acceptance and Agreement to be bound to all terms and conditions of the variance. This 45 day period shall be held in abeyance for any period during which this matter is appealed. The form of said Certification shall be as follows:


CERTIFICATION

I (We), \_\_\_\_\_ having read and fully understanding the Order of the Illinois Pollution Control Board in PCB 77-229 hereby accepts said Order and agree to be bound by all terms and conditions thereof.

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 2<sup>nd</sup> day of March, 1978 by a vote of 5-0.

  
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Christan L. Moffett, Clerk  
Illinois Pollution Control Board