

ILLINOIS POLLUTION CONTROL BOARD

December 19, 1974

PEOPLE OF THE STATE OF ILLINOIS)
COMPLAINANT)
)
)
v.) PCB 74-225
)
)
MINNESOTA MINING & MANUFACTURING CO.,)
CHEMICAL DIVISION, a Delaware Corp-)
oration,)
RESPONDENT)

MR. FREDERIC J. ENTIN, ASSISTANT ATTORNEY GENERAL, in behalf of
PEOPLE OF THE STATE OF ILLINOIS
MR. ROBERT H. TUCKER, GENERAL COUNSEL, AND MR. REINO O. LAINE, ASSOC-
IATE COUNSEL, in behalf of MINNESOTA MINING & MANUFACTURING

OPINION AND ORDER OF THE BOARD (by Mr. Marder)

The People of the State of Illinois by Attorney General William Scott filed its Complaint alleging that Minnesota Mining & Manufacturing Company (hereinafter referred to as 3 M) violated Sec. 12 (a) of the Environmental Protection Act on December 14-15, 1973, January 17-18, 1974, and March 26, 1974. Specific violations of the Board's Rules and Regulations are as follows: December 14, 1973, December 15, 1973, January 17, 1974, January 18, 1974, and March 26, 1974, violated Rule 403 of Chapter 3, Water Pollution Regulations, by causing or allowing discharge from its Cordova facility into the Mississippi River that contained obvious levels of color or turbidity; March 26, 1974, violated Rule 408 (a) as it applies to iron by allowing a discharge to the Mississippi River that contained 18 mg/l; violated Rule 408 (a) as it applies to lead, by allowing a discharge to the Mississippi River that contained 0.25 mg/l lead. The Complaint was filed on June 14, 1974, with an Amended Complaint filed June 25, 1974.

Hearing was held August 19, 1974, in Rock Island, Illinois.

At hearing the parties presented a Stipulation of Fact and Proposal of Settlement pursuant to Rule 333 of the Board's Procedural Rules. This Opinion shall summarize that Stipulation. (For a more detailed discussion of the matter, the reader is referred to the Stipulation filed August 23, 1974, in this matter.)

The alleged violations in the Complaint pertain to 3 M's magnetic recording tape manufacturing facility located six miles north of Cordova, Illinois, along the Mississippi River. There are two plants in the Cordova facility. One is a chemical plant, which discharges waste water containing BOD₅ and suspended solids. The second plant is a magnetic

audio visual plant, whose discharge contains iron oxide, as suspended solids, iron, and ammonia sulphate.

The chemical plant was completed in 1969, with its water treatment plant coming into service in early 1970. The magnetic plant was completed in 1973, with the waste treatment plant completed when the plant went into operation.

The treatment plant for the chemical plant has a design capacity of 300 gpm, and 8000 lbs. of BOD per diem. It is an activated sludge treatment plant. In 1970 this plant cost \$834,000.

The treatment plant for the magnetic plant is a chemical treatment plant designed to handle 900 gpm of waste water. It is designed to remove 10,800 lbs/day of suspended solids, consisting of iron oxide and ferrous sulphate. In 1973 this plant cost \$400,000.

On November 19, 1973, the Illinois Environmental Protection Agency (hereinafter referred to as Agency) issued a permit for 3 M to take the stabilization lagoon of the treatment system out of service, in order to fix the sludge and remove it from the lagoon. 3 M took the lagoon out of service on December 13, 1973. On December 14, 1973, a Mr. Howe of the Illinois Department of Conservation noted a yellow-colored effluent coming from 3 M's outfall. On December 17 the lagoon was put back into service, as it was too cold to complete the sludge fixing.

The lagoon was taken out of service again on January 16, 1974, through January 20, 1974. This was done in order to finish fixing the sludge in the lagoon. On January 17, Mr. Howe again saw a colored discharge coming from 3 M's outfall. On that date he notified 3 M of his observations. Also on January 17, 1974, a Mr. Kraft of the Agency was present inspecting the fixing operation. Upon receipt of the complaint from Mr. Howe, Mr. Kraft and representatives of 3 M went to inspect the outfall and found the discharge clear. On January 18, 1974, the Agency discussed the complaint of Mr. Howe with 3 M and decided on an inspection the next day. Inspection was made on January 19, 1974, by Mr. Kehoe of the Agency. Mr. Howe accompanied Mr. Kehoe on the inspection. On that date the outfall effluent was clear. A sample of the effluent at that time showed the following levels of contaminants in the effluent:

Constituent	Level	State Standard
Suspended Solids	6 mg/l	25 mg/l
Iron	.5 mg/l	2.0 mg/l
pH	8.0	6.0-9.0

On March 26, 1974, there was a breakdown in the treatment plant that services the magnetic plant. There was trouble with the pH in the system, as well as a broken collection flight.

3 M denies violation in December 1973 or January 1974. 3 M claims that the work being done was covered by a permit to shut down the lagoon. Further, Agency inspection at the site in January showed a clear outfall effluent.

3 M further denies any violation of the lead standard. The stipulation does not have any facts in it which would tend to prove the violation of the lead standard. In fact, Agency samples showed that the lead standard was being met.

3 M admits violation of the iron standard found in Rule 408 (a) of Chapter 3 on March 26, when its treatment plant failed.

3 M has both short- and long-range programs that will prevent any future incidents of this type.

The short-range program consists of the following items:

- 1) Awareness program - begun February 1974.
- 2) Sewer drains capped in magnetic plant to prevent accidental spills - February 1974.
- 3) Dry and landfill any out-of-spec iron oxide - begun February 1974.
- 4) Full-time environmental engineer assigned to plant - Feb. 1974.
- 5) Hourly inspection of outfall - begun February 1974.
- 6) 24-hr. treatment plant operators - begun March 1974.
- 7) Backup pH control system - installed April 1974.
- 8) Upgrade and replacement of sludge pumping equipment - to be done by September 1974.
- 9) Use of new flocculating agent, NALCO 677 and alum - April 1974.
- 10) Permanent alum feed system - winter, 1974.
- 11) Inventory spare parts for treatment plant - done April 1974.
- 12) Lower caustic used for neutralization to prevent freezing - winter operation.
- 13) Color turbidity unit installed - July 1974.
- 14) Program to reduce production to meet effluent standards - started May 1974.

3 M further agrees to notify the Attorney General's office of progress on this program.

The long-range program will involve expanding the present waste water system to provide for backup so as to prevent effluent standard violations. This includes an extension of the outfall and an additional stabilization lagoon. This is to be done relatively soon and will cost about \$367,000. Construction will take place in the third quarter of 1975 to build an equalization tank for the system. This should cost about \$360,000

As far as adverse ecological impact on the river, it should be noted that this was not a continuing violation. It is stated in the Stipulation that there is less turbidity and color in the effluent than that which naturally occurs in the river. On the date of violation (March 26, 1974), 615 pounds of iron were deposited in the river. At hearing, Mr. Howe stated that down-river from the outfall there were dead clams, but no dead clams up-river from Respondent's outfall. R. 53. Other than this observation, as no samples were taken, the record contains no correlation between the events at Respondent's plant and the death of the clams. As mentioned above, the lead samples taken showed compliance with the effluent standards.

As a settlement, the parties have proposed that 3 M will complete both the short- and long-range programs described above within the following schedule:

(Time runs from date Respondent obtains all applicable permits to construct.)

1. Construct and extend outfall pipe into Mississippi River - 3 months. Construct manhole on bank of river in the event the extension of the outfall into the river is approved by the respective agencies - 3 months.
2. Construct additional stabilization pond - 9 months for permanent installation. If temporary equipment can be obtained, the pond will be put into operation within 4 months.
3. Provide flow equalization and segregation of process wastewater from magnetic plant - 9 months.
4. Final startup and adjustments for items 2 and 3 - 10 months.
5. Progress reports, including duplicate copies of specifications, plans, and permit applications, as submitted to the Illinois EPA on the above installations, will be submitted during the construction, to the Office of the Attorney General of Illinois.

Further, 3 M will furnish monitoring reports to the Agency and U.S. Environmental Protection Agency as discharge permits require. Such monitoring shall include (beginning 60 days from the date of the Agreement) monitoring of the three storm sewer outlets twice weekly. When there is runoff along with normal visual observations, 3 M shall analyze the effluent for BOD₅, COD, and suspended solids. These results shall be supplied to the Agency in monthly reports.

Dates stipulated in the Agreement may only be extended with a Board Order, and only after notice to all parties.

The conditions of this Agreement shall end if either the Board releases by Order 3 M from its obligations, or 3 M ceases operation at Cordova permanently.

Inspectors employed by the Attorney General's office shall have the right to make unannounced inspections, subject to conditions in the Agreement.

3 M agrees to install a motion switch on the skimmer in the settling tank with an alarm signal.

3 M will send duplicate copies of all reports to the Illinois Attorney General.

During construction, 3 M will notify the Attorney General within 24 hours of any upset that may tend to a violation.

3 M agrees to post a \$100,000 compliance bond to insure compliance with this Agreement and pay a \$1,000 civil penalty for the iron violation on March 26, 1974.

The Board finds this an acceptable agreement which will preserve the quality of the environment by preventing future unlawful discharges.

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

ORDER

IT IS THE ORDER of the Pollution Control Board that:

1. Respondent, Minnesota Mining & Manufacturing Company, has violated Rule 408 (a) as it applies to iron on March 26, 1974. All other charges are dismissed.
2. Petitioner shall cease and desist all violations of the applicable Water Pollution Control Regulations and shall follow all the terms of the Stipulation Agreement entered into by the parties and filed with the Board August 23, 1974, and summarized above.
3. Respondent shall pay to the State of Illinois as penalty the sum of \$1,000 within 35 days from the date of this Order. Penalty payment by certified check or money order payable to the State of Illinois shall be made to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois, 62706.
4. Respondent shall, within 35 days from the date of this Order, post a performance bond in a form satisfactory to the Agency in the amount of \$100,000 guaranteeing compliance with the terms of the Stipulation Agreement. Bond shall be forwarded to the Agency at 2200 Churchill Road, Springfield, Illinois, 62706.

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 19th day of December, 1974, by a vote of 4 to 0.

Christan L. Moffett (gr)