

At the time of the filing the variance petition Petitioner did not feel that there were enough representative samples of effluent under the normal operating conditions of its pollution abatement equipment to determine what additional corrective steps should be taken. This determination was based on the facts that at the time the samples were taken start-up problems were probably still present; tests reflected for the first time the presence of ammonia nitrogen in quantities theretofore unknown and no prior analysis had reflected the presence of ammonia nitrogen in any quantities of significance; and the values for silver and lead were precisely the same for two separate discharges at two different mine sites seems far too unusual and anomalous to be a valid coincidental occurrence. On this basis further samples were scheduled to be taken the first week in August 1977.

The Environmental Protection Agency (Agency) filed a recommendation October 5, 1977. The Agency had done an investigation in August 1977 of Petitioner's facilities which did confirm that the Mill effluent was in violation of Rule 408 of Chapter 3. However, at this time Petitioner was having operational difficulties in its system caused by the mechanical failure of two acid metering pumps.

In October Petitioner began a new sampling procedure. The Agency received these results on November 30, 1977 and consequently the Agency filed an amended recommendation on December 27, 1977. Petitioner filed a response to this recommendation on January 26, 1978. Additional information was filed by the Petitioner on May 1, 1978.

Petitioner did follow the compliance plan set out in PCB 75-111. At the time of the grant of that variance the Board recognized that the potential for violation of some of the general use water quality standards would exist even after all facilities were completed and fully operational. In its original recommendation the Agency recognized the difficulties of start-up of physical chemical treatment facilities and recommended a short term variance.

On the basis of data submitted by Petitioner on samples taken between October 3, 1977 and October 17, 1977 the Agency amended its recommendation generally to five year variances with conditions for certain parameters. At the Spivey Mine variances from Rule 408 as it pertains to cyanide, Rule 404(f) and Rule 203(f) as it pertains to copper and cyanide were not recommended. At the Minerva Mine variances from Rule 408 as it pertains to copper and cyanide, Rule 404(f) and Rule 203(f) as it pertains to copper and cyanide were not recommended.

The Agency particularly noted that the concentrations of copper and cyanide shown by Petitioner's sampling at the Minerva Mill are not consistent with the levels projected by Petitioner in Table 6 of its Design Report (submitted in PCB 75-111).

However, in its January 26, 1978 Response Petitioner states that the Design Report indicated that cyanide treatment facilities would be installed if necessary and only after cyanide reduction in the mill had been evaluated and after Phase One had been implemented and operating and that the copper level reflected in Table 6 was never represented by Petitioner or the Agency to be reducible to the .02 mg/l limit by the Phase One pollution control system. The Board interprets the Design Plan pages 16-21 to indicate that treatment would be installed only after cyanide reduction was evaluated and Phase One of the plan implemented. The treatment did not work as expected because apparently the copper and cyanide were complexed.

Petitioner has been pursuing a resolution to its copper and cyanide problems as evidenced by a document submitted to the Board subject to nondisclosure. In view of this report the cyanide problem may be resolved. This presumably will allow the present treatment system to remove the excess copper. Petitioner has shown good faith in pursuit of a resolution of this problem. The Board will grant Petitioner's Minerva Mill No. 1 a variance for copper and cyanide from both Rule 408(a) and Rule 203(f) of Chapter 3 for one year and for its Spivey mine a variance for copper and cyanide from Rule 408(a) and a variance for cyanide from Rule 203(f) of Chapter 3 for one year. The Board will further grant variances for the Spivey and Minerva Mill Mines as consistent with the Agency recommendation. The Board finds that given Petitioner's on-going effort to control its discharges that it would suffer arbitrary and unreasonable hardship if denied this variance grant.

After the Agency filed its amended variance recommendation Petitioner requested a variance from Rules 203(f) and 402 for ammonia nitrogen. The presence of ammonia nitrogen in quantities greater than allowed in water quality standards was a recent discovery by Petitioner. The source of the ammonia nitrogen is a blasting agent used by Petitioner. A study was done by Petitioner but no technologically feasible and economically reasonable method of reducing the ammonia nitrogen was found. In its proprietary report Petitioner concludes any treatment would be experimental in nature and design. The Board will grant Petitioner a variance from Rule 402 and Rule 203(f) for a period of one year. This will allow Petitioner time to arrive at a compliance plan if necessary. Concerning the ammonia nitrogen, copper and cyanide variances the Board will require Petitioner to submit quarterly reports concerning Petitioner's progress toward compliance to the Agency. Because of a void of information concerning Rule 404(f) the variance request will be dismissed.

The Board will direct the Agency to modify Petitioner's NPDES permit consistent with this opinion and order pursuant to Rule 914 of Chapter 3.

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 Allied Chemical Corporation be granted the following variances for its Spivey Mine and its Minerva Mill No. 1.

At the Spivey Mine variances from Rules 203(f), 402 and 408 of Chapter 3: Water Pollution Regulations shall be granted for five years subject to the following conditions:

1. The variance from Rules 203(f) and 402 shall be limited to total dissolved solids, sulfate and copper.
2. The variance from Rule 408 shall be limited to total dissolved solids.
3. The effluent concentration of total dissolved solids, based upon a twelve month running average, shall not exceed 2,700 mg/l.
4. The sulfate concentration in Petitioner's effluent, based upon a twelve month running average, shall not exceed 1,500 mg/l.
5. The copper concentration in Petitioner's effluent, based upon a twelve month running average, shall not exceed 0.041 mg/l.

At the Spivey Mine variances from Rules 203(f), 402 and 408(a) of Chapter 3 shall be granted for one year subject to the following conditions:

1. The variance from Rules 203(f) and 402 shall be limited to ammonia nitrogen and cyanide.
2. The variance from Rule 408(a) shall be limited to copper and cyanide.
3. Petitioner shall submit quarterly reports to the Agency on its efforts to achieve compliance concerning copper, cyanide and ammonia nitrogen.

At the Minerva Mill variances from Rules 203(a), 203(f), 203.1 and 402 of Chapter 3 shall be granted for five years subject to the following conditions:

1. The variance from Rule 203(a) shall be limited to the "unnatural sludge" element of that Rule and shall expire July 1, 1978.
2. The variance from 203(f), 203.1 and 402 shall be limited to total dissolved solids, sulfate and fluoride.
3. The fluoride concentration in the effluent wastewater stream, based upon a twelve month running average, shall be limited to 5.8 mg/l.
4. The total dissolved solids component, based upon a twelve month running average, shall be limited to 1,800 mg/l.

5. The sulfate concentration in Petitioner's effluent, based upon a twelve month running average, shall not exceed 720 mg/l.

At the Minerva Mill variances from Rules 203(f), 402 and 408(a) of Chapter 3 will be granted for a period of one year subject to the following conditions:

1. The variance from Rules 203(f) and 402 shall be limited to ammonia nitrogen, copper and cyanide.
2. The variance from Rule 408(a) shall be limited to copper and cyanide.
3. Petitioner shall submit to the Agency quarterly reports on its efforts to achieve compliance concerning copper, cyanide and ammonia nitrogen.

Petitioner's request for variance from Rule 404(f) is dismissed.

Within 45 days after the date of the Board herein the Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Variance Section, 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 77-203 hereby accept said Order and agree to be bound by all terms and conditions thereof.

Title

Date

The Agency, pursuant to Rule 914 of Chapter 3, shall modify Allied Chemical Corporation's NPDES permit consistent with the conditions set forth in this order including such interim effluent limitations as may reasonably be achieved through the application of best practicable operation and maintenance practices in the existing facility.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 22ND day of June, 1978 by a vote of 5-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board