

of a coal preparation plant Freeman formerly used to separate the coal from the refuse. Operation of the coal preparation plant ceased at the same time as did the mining.

The mine refuse pile is situated at the top of a small watershed and receives no drainage from other areas. The only source of waters emanating from the pile is precipitation. The acid water is treated before discharge to an unnamed branch of Macoupin Creek. It is the failure of Freeman's treatment system which allowed the discharge of inadequately treated or untreated water which allegedly polluted the unnamed branch of Macoupin Creek and Macoupin Creek itself.

Freeman's treatment system was constructed in 1966. The system was designed to capture all the drainage from the mine refuse pile, then channel the drainage to a treatment pond, where the drainage would be treated with hydrated lime and mechanical aeration. Thus treated, the drainage was then channeled to a settlement pond before final discharge to the unnamed branch of Macoupin Creek. The system was apparently the first of its type in Illinois to be used by a coal mine operator for the sole purpose of capturing and treating mine refuse pile runoff before discharge to Illinois waters.

Freeman concedes that the system did not always work. In late 1971 Freeman redesigned and rebuilt the system to correct the deficiencies that Agency inspections had disclosed. The redesigned system incorporates a new holding pond upstream of the former treatment and settlement ponds. The acid discharge is directed to the new holding pond and is treated with a lime slurry as it is pumped from the new pond to one of the old ponds, which will be used solely as holding areas. The redesigned system is designed to direct any accidental overflows of untreated acid discharges from the new pond to one of the old ponds, thus insuring that no totally untreated acid discharge will flow directly into the waters of the State.

The redesigned system can accommodate approximately 90 acre feet of water. The new holding pond has a capacity of approximately 50 acre feet, which is equivalent to a six inch rain on approximately 100 acres of drainage (70 acres for the mine refuse pile and 30 acres for the holding area). The new treatment facility can withdraw and treat 1,000 gallons per minute of the acid water from the new holding pond. At that rate, the volume of water introduced to the 100 acre area by a one-half inch rainfall would be treated in a 24 hour period, and the volume of water similarly introduced by 15 inches of rain would be treated in a 30 day period. No water, other than from precipitation, can be introduced into the system. As redesigned, the system is large enough to handle all but unprecedented precipitation: the maximum 24 hour precipitation in the area, based on United States Weather Service records

at Springfield, Illinois, was 5.94 inches on June 14, 1917; and the same records indicate the maximum monthly precipitation was 13.39 inches in October, 1941.

The nature and costs associated with the new system illustrate the scope of the project. Outfalls from the old ponds had to be removed. Dams were constructed. Earthen banks were repaired. Silt was removed from drainage ditches surrounding the refuse pile, and the ditches were enlarged. The new pond was excavated. The new lime slurry treatment facility was built. Pumps, pipes, switches, bearings and wiring were purchased and installed at a cost of nearly \$20,000. The equipment used in the corrective work cost Freeman more than \$17,000. The labor costs associated with the redesigned system exceeded \$45,000. The maintenance and operation of the system, including the lime slurry, is expected to cost more than \$25,000 per year.

The only problem with the redesigned system is whether the discharges therefrom will meet the requirements of the Act and Regulations. The Agency and Freeman agree that the effluent levels in Rule 606 of Chapter IV: Mine Related Pollution will be met if the system is properly maintained and operated, and Freeman, although asserting that the Rule is inapplicable to this site, has promised to so operate and maintain the system. Freeman has also promised to operate and maintain the system so that Rule 203 of Part II: Water Quality Standards of Chapter III: Water Pollution Regulations will be met. However, the Rule will not be met in the branch to which the discharge flows, but only in Macoupin Creek after using all of the branch and some of Macoupin Creek as a mixing zone, a distance of roughly 2,500 feet. The Agency asserts that such a mixing zone is excessive. It is the Board's job to determine, in accordance with Rule 201, what size mixing zone is reasonable. That question will be addressed in the discussion of the legal issues present in this complex case.

II: THE ALLEGED VIOLATIONS

The amended complaint charged Freeman with violations of the following provisions:

Sections 12(a) and (d) of the Act:

No person shall:

- (a) Cause or threaten or allow the discharge of any contaminants into the environment in any State so to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act;

- (d) Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard;

Rule 1.03 of SWB-14:

Rule 1.03 MINIMUM CONDITIONS

These Minimum Criteria shall apply to all waters at all places and at all times in addition to specific criteria applicable to specific sectors.

(a) Free from substances attributable to municipal, industrial or other discharges that will settle to form putrescent or otherwise objectionable sludge deposits; or which will form bottom deposits that may be detrimental to bottom biota (such as coal fines, limestone dust, fly ash, etc).

(b) Free from floating debris, oil, scum and other floating materials attributable to municipal, industrial or other discharges in amounts sufficient to be unsightly or deleterious;

Oils, grease and floating solids shall be reduced to a point such that they will not create fire hazards, coat hulls of watercraft, injure fish or wildlife or their habitat, or will adversely affect public or private recreational development or other legitimate shoreline developments or uses.

(c) Free from materials attributable to municipal, industrial or other discharges producing color, odor or other conditions in such degree as to create a nuisance;

(d) Free from substances attributable to municipal, industrial or other discharges in concentrations or combinations which are toxic or harmful to human, animal, plant or aquatic life.

Rule 1.05(b) of SWB-14:

Rule 1.05 FOR AQUATIC LIFE SECTORS

The following criteria are for evaluation of conditions for the maintenance of a well-balanced, warm-water fish population. They are applicable at any point in the stream except for areas immediately adjacent to outfalls. In such areas cognizance will be given to opportunities for the admixture of waste effluents with river water. The Sanitary Water Board may declare specific streams or head water sections of streams to be unsuitable for sustaining fish and aquatic life.

(b) pH: No values below 6.0 nor above 9.0, and daily average (or median) values preferable between 6.5 and 8.5.

Rule 1.07 of SWB-14:

Rule 1.07 FOR AGRICULTURE OR STOCK WATERING

The following criterion is for the evaluation of stream quality at the point at which water is withdrawn for use for agriculture or stock watering purposes:

1. Free from substances attributable to municipal, industrial or other discharges that will settle to form putrescent or otherwise objectionable sludge deposits;
2. Free from floating debris, oil, scum and other floating materials attributable to municipal, industrial or other discharges in amounts sufficient to be unsightly or deleterious;
3. Free from materials attributable to municipal, industrial or other discharges producing color, odor or other conditions in such degree as to create a nuisance;
4. Free from substances attributable to municipal, industrial or other discharges in concentrations or combinations which are toxic or harmful to human, animal, plant or aquatic life.

Rule 1.08(10)(b)(3), 10(c), and (11)(c) of SWB-14:

Rule 1.08 IMPLEMENTATION AND ENFORCEMENT PLAN

10. Treatment Requirements and Effluent Criteria

In order to establish a basis for treatment works design, municipal and industry representatives and consultants frequently inquire regarding the limits or effluent standards that must be met. The adoption of stream water quality criteria as required by the Federal Water Quality Act of 1965 (PL 89-234 amendments to PL 84-660; 33 U.S.C. 446) emphasizes the need to relate stream quality to effluent quality and treatment requirements. The expressed goals established by this Act are to protect and upgrade water quality; any wastes amenable to treatment or control must receive the best practicable treatment or control prior to discharge into any interstate water. The same goals have been, and continue to be, basic under the Sanitary Water Board Act for all waters of Illinois. Both the Federal Law and the Illinois Act prohibit the use of any stream or

portion thereof for the sole or principal purpose of transporting wastes.

b) All facilities for the treatment of sewage, industrial wastes, or other wastes shall provide for the following:

(3) Removal of color, odor, or turbidity to below obvious levels.

c) Storage facilities for materials which are hazardous to health and welfare, and for oils, gases, fuels or other materials capable of causing water pollution if accidentally discharged, shall be located so as to minimize or prevent any spillage or leakage that might result in water pollution. Structures and devices to contain spillage, such as catchment areas, relief vessels, or entrapment dikes, should be installed at existing facilities, shall be installed at all new facilities, and shall be required following any discharge resulting in pollution.

11. Guidelines Regarding Range of Treatment

c) Within design limitations, operation shall be of such quality to obtain the best possible degree of treatment works. Every effort must be made to eliminate all system bypasses and overflows, otherwise measures must be taken to provide treatment units such as lagoons, detention or holding basins, and chlorination. Installation of new combined sewers are prohibited. Existing combined sewer systems should be patrolled; overflow regulation devices shall be adjusted to convey the maximum practicable amount of combined flow to treatment facilities. Excess infiltration into the sewer system should be eliminated to keep dry weather flow within design limits of conduits and treatment works.

Freeman asserts that there can be no finding of a violation of Sections 12(a) and 12(d) against it because most of the mine refuse pile was placed there by Freeman prior to the passage of the Environmental Protection Act. Freeman further asserts that finding a violation under such conditions would be a retrospective application of the law in violation of Freeman's rights under the Illinois Constitution (Article I, Section 2) and the United States Constitution (Fourteenth Amendment).

We disagree with Freeman's assertions. We have consistently held that ownership of land places upon the owner a responsibility for conforming to the requirements of the Act. In EPA v. Kienstra Concrete, Inc., PCB72-72, the Respondent had purchased land on

which mining activities had ceased more than 25 years ago. Furthermore, the Respondent had never conducted or participated in any mining activities. The Respondent was found to have violated the Act. In the Freeman case, the Respondent not only owns the land, but admittedly performed the activities which admittedly degraded waters of the State. We therefore hold that Sections 12(a) and 12(d) are applicable in this case. Whether or not such violations actually occurred will be considered in our discussion of the individual dates for which such violations are alleged.

III: THE INSPECTIONS

The allegations regarding February 11, 1970, April 1, 1970, September 15, 1970, October 21, 1970, February 24, 1971 and April 29, 1971 are easily resolved. Inspection reports for these dates, introduced as Exhibit H, describe water samples taken somewhere on or around the Freeman site. However, the reports are silent as to where the samples were taken, and no amplification or explanation of these reports is found in the record. Without knowing what the samples purport to describe, we cannot find any violations for those six dates. We therefore find no violations of any of various SWB-14 charges for all six dates, dismiss the Section 12(a) charges for the two dates charged which were prior to July 1, 1970, the effective date of the Act, and find no violation of Section 12(a) for the remaining four dates.

The allegations concerning a continuing violation of Section 12(d) of the Act are also easily resolved. There is no doubt that the refuse pile constituted a water pollution hazard (see discussions of Exhibits C, D, E, F and G, supra). The placement of acres of toxic materials in close proximity to waters of the State without providing for adequate protection of those waters is clearly a situation Section 12(d) was intended to cover. See EPA v. Ayreshire Coal Co., PCB 71-323 (April 25, 1972); EPA v. James McHugh Construction Co., PCB 71-291 (May 17, 1972). However, no refuse was added to the pile after September 31, 1971, the date on which active mining ceased on the Freeman property. Accordingly, we find that Freeman did deposit contaminants upon the land in such place and manner so as to create a water pollution hazard from July 1, 1970 to September 31, 1971.

We find violations of Section 12(a) of the Act for May 20, 1971, July 8, 1971, July 23, 1971, and July 29, 1971. That Freeman caused water pollution on those dates is admitted in the Stipulation; there is no reason to reject the admission.

May 20, 1971 (Exhibit C): Freeman admits that its facility caused water pollution on this date. An Agency inspector was surveying Macoupin Creek regarding another matter when he discovered drainage from the mine refuse area turning Macoupin Creek orange and turbid. He entered the site and discussed the problem

with Freeman's treatment system operator. A blockage in the old lime mixing tank which caused partially untreated drainage to overflow was diagnosed as the cause and was corrected. The inspector took water samples in Macoupin Creek upstream of where the overflowing drainage entered the Creek and 100 feet downstream of the point of entry. The upstream samples disclosed a pH of 7.3, an iron content of 1.2 mg/l, and brown but fairly clear water. The downstream samples disclosed a pH of 3.1, an iron content of 115 mg/l, and orange and turbid water. The inspector returned on June 7, 1971, and noted that the treatment system was working and discharging clear water, but took no samples.

We find no violation of Rule 1.03. Although Macoupin Creek was rendered orange and turbid, there is no evidence that this discharge had the detrimental effects required by Rule 1.03 to find such a violation. It could be argued that the mere existence of an orange color in a stream expected to be green or brown is nuisance enough. The existence of the color itself might be a nuisance in causing an aesthetic clash to the senses. But the record should show such clash through the inspector's testimony or report and does not in this case.

We find no violation of Rule 1.07 for the same reason we found no violation of Rule 1.03. We find a violation of Rule 1.05(b). The pH of Macoupin Creek had been lowered from a very satisfactory 7.3 to a very unsatisfactory 3.1. The conditions described in Rule 1.05(b) are clearly applicable to this situation. We find a violation of Rule 1.08(b)(3). Freeman asserts that its system did "provide for... (3) removal of color, odor or turbidity to below obvious levels," and that accordingly, it has not violated the rule. We disagree. "Provide" implies that the system will work. Here, the system clearly did not.

We find a violation of Rule 1.08(10)(c). Freeman asserts that because its storage facilities were located "so as to minimize or prevent any spillage or leakage that might result in water pollution," it has not violated that rule. We disagree. "Minimize or prevent" again implies success. The obvious degradation of Macoupin Creek on May 20, 1971, caused by Freeman clearly shows that Freeman did not "prevent" and was unsuccessful in its attempts to "minimize".

We find no violation of Rule 1.08(11)(c). Freeman asserts that the rule is inapplicable to the type of treatment system used by Freeman. Prior Board decisions are silent on this point: however, a close reading of the Rule indicates that Freeman's assertion is meritorious. The Rule discusses such things as chlorination and combined sewers, which are irrelevant to Freeman's acid water treatment system.

July 8, 1971 (Exhibit D): An inspection of the site area made on this date disclosed continued environmental degradation. A sample of the treated acid water, which was clear and colorless, disclosed a pH of 3.8, an iron content of 11 mg/l, and a sulfate content of 2,330 mg/l. A sample from a ditch carrying untreated bypassed water, which was also clear, to the unnamed branch, dis-

closed a pH of 3.3, an iron content of 95 mg/l and a sulfate content of 2,270 mg/l. A sample from the unnamed branch was taken downstream of the discharge, and disclosed clear water with orange bottom deposits, a pH of 3.2, an iron content of 12 mg/l, and a sulfate content of 1,800 mg/l. A sample was taken in Macoupin Creek upstream of the confluence with the unnamed branch and disclosed a pH of 8.5, an iron content of .85 mg/l, a sulfate content of 52 mg/l, and brown water with a brown silt stream bottom. A sample was taken of Macoupin Creek downstream of its confluence with the unnamed branch and disclosed a pH of 6.6, an iron content of .65 mg/l, a sulfate content of 116 mg/l, and brown water with some orange deposits.

It was also noted that the unnamed branch, which according to United States Geological Survey maps is classified as intermittent, consisted almost entirely of seepage from the Freeman holding pond until it was joined by the treated discharge from the Freeman facility. The Branch, downstream from the discharge point, was surrounded by dead trees and silt flats, which the inspector concluded were caused by layers of the mine refuse wastes flooding the area.

We find no violations of Rules 1.03, 1.07 and 1.08(11)(c) for the same reasons we found no such violations on May 20, 1971. Although there was evidence of harm to life, there is no showing that the discharges on July 8, 1971 caused the harm. There is no allegation that the damage resulted from a continuing violation, so we are precluded from finding a violation on that basis.

We find no violation of Rule 1.05. The pH of the unnamed branch downstream of the discharge was a very low 3.2, but with no upstream reading, we cannot find that Freeman's discharge caused the low pH. The pH of Macoupin Creek had decreased after it was joined by the unnamed branch, but was still a satisfactory 6.6.

We find violations of Rules 1.08(10)(b)(3) and 1.08(10)(c) for the same reasons we found such violation for May 20, 1971. Treatment facilities such as Freeman's must provide for raising the pH of acid waste to something more than 3.8, especially as the untreated acid waste on that day had a pH 3.3. Furthermore, facilities to minimize or prevent spillage or leakage must be better than those described here: the leakage was so great it provided almost all of the flow of the unnamed branch upstream of the treatment system's discharge point.

As we noted in Environmental Protection Agency v. Ayreshire Coal Company, PCB 71-323, acid discharges to low flow streams have very significant effects on the recycling stream because the possibility for dilution is minimal and the assimilative capacity of the receiving stream is small. As long as acid waters

are entering the receiving stream, the polluttional impact will be lessened only if rainfall significant to provide substantial dilution occurs. The margin for environmental error is reduced as the size of the stream decreases; in this case the margin for error is very small.

July 23, 1971 (Exhibit E): The Agency inspector returned to the Freeman site and found that the treatment system was working very poorly with resulting pollution of both the unnamed branch and Macoupin Creek. The extensive water samples taken by the inspector dramatically portray the results Freeman's ill-functioning system had on the waters of the State.

Upstream of the mine property, the unnamed branch, although having a rather low flow, exhibited the characteristics of an environmentally balanced stream. There were frogs and turtles, a normal river bottom of fine brown mud, a pH of 6.7, an iron content of .8 mg/l, and a sulfate content of 280 mg/l. Once inside the mine boundary, seepage or overflow from untreated acid water flowed into it, turning the branch a deep rust color while increasing its volume. A sample of the branch adjacent to the retention pond disclosed a pH of 3.1, an iron content of 115 mg/l, a sulfate content of 1,550 mg/l, and a turbid, brilliant yellow-orange condition.

The treated effluent was even worse, disclosing a pH of 2.7, an iron content of 250 mg/l and a sulfate content of 3,800 mg/l. Water being bypassed through a bypass channel disclosed a pH of 3.2, an iron content of 40 mg/l, and a sulfate content of 2,200 mg/l.

The samples described above indicate a poorly operated and maintained treatment system. Serious seepage and bypassing were evident, although because the lime treatment system was working so miserably, the untreated water was no worse than the treated water. The effect, the malfunctioning system on the unnamed branch is evident from a sample taken from it one hundred yards downstream of the discharge point. The pH, formerly 6.7 upstream of the mine property, was 2.9. Iron content had increased from .8 mg/l to 150 mg/l, and sulfate content had increased from 280 mg/l to 2,900 mg/l. The water was a deep red color.

Freeman also caused pollution of Macoupin Creek. Upstream of its confluence with the unnamed branch, the Creek was fairly clear, brown in color, with a bottom of fine brown silt, a pH of 6.9, an iron content of 1.2 mg/l, and a sulfate content of 55 mg/l. Downstream of the confluence, Macoupin Creek was orange and turbid, with a pH of 5, an iron content of 26.3 mg/l and a sulfate of 440 mg/l.

We find violations of Rules 1.05, 1.08(10)(b)(3) and 1.08(10)(c) for the same reasons as we found such violations on May 20, 1971 on July 8, 1971. Although the July 23 samples were taken after a rainy period which might have increased the dilution

of the offensive acid water, no such dilution was apparent. The degradation continued unabated.

We find no violations of Rules 1.03, 1.07 and 1.08(11)(c) for the same reasons as discussed above.

July 29, 1971 (Exhibit E): The inspector summarized the situation of July 29: "precisely the same conditions of gross and mine waste water pollution existed on that date as were observed on July 23".

Samples taken by the inspector confirm his conclusion. The unnamed branch upstream of the discharge point was clear and colorless with a brown mud bottom, a pH of 6.5, an iron content of .6 mg/l, and a sulfates content of 400 mg/l. The treated mine waste waters were red-orange, with a pH of 2.9, an iron content of 135, and a sulfates content of 4,000 mg/l. The unnamed branch 100 yards downstream of the mine had deteriorated in quality to an orange color, a pH of 3.1, an iron content of 45 mg/l and a sulfates content of 1,800 mg/l. Macoupin Creek upstream of its confluence with the unnamed branch was clear with a brown tint, a pH of 7.1, an iron content of .5 mg/l, and a sulfates content of 65 mg/l. 150 feet downstream of the confluence, the water was a turbid yellow, with yellow floc and scum, a pH of 5.9, an iron content of 10 and a sulfates content of 380. A further one and one-half miles downstream, Macoupin Creek still had a low pH (5.4) but was clear and colorless and had otherwise recovered from the Freeman discharges.

We find the same violations occurred on July 29, 1971 as occurred on July 23, 1971. We find no violations of the same provisions for which no violations were found to have occurred on July 23, 1971.

August 24, 1971 (Exhibit G): An Agency biologist collected biological samples from Macoupin Creek and the unnamed branch. The unnamed branch downstream of the mine site had a pH of less than 4, and the only form of life he found were larvae from the midge fly. His samples from Macoupin Creek upstream of its confluence with the unnamed branch showed a pH of 7.6, midge fly larvae, worms, algae, and minnows and small fish. A few miles downstream, the results were similar, except no fish life was observed, and approximately 5 miles downstream, an even more diversified aquatic population was found.

From this data, it is clear that Freeman's activities caused water pollution of the unnamed branch in violation of Section 12(a). The poor quality of life found in the unnamed branch is attributable to only one source of contamination - the discharges into it from the Freeman facility.

We also find violations of Rule 1.03(d), Rule 1.05(b), and Rule 1.07(4). The pH of the branch was lower than 6, and the

acid discharges had rendered the branch unfit for all but the midge fly larvae. We are unable to find violations of the other SWB-14 charges because Exhibit F does not contain information as to the efficiency of the Freeman treatment system on August 24, 1971.

IV: FREEMAN'S FUTURE PROGRAM

With slight modification, the abatement program proposed by Freeman in the Stipulation is acceptable. The abatement program consists of Freeman's redesigned water treatment system, described at pp. 2-3 of this Opinion. The modification to the program is as follows: the mixing zone for Freeman's discharges shall not exceed the distance from the point of discharge into the unnamed branch to the confluence of the unnamed branch and Macoupin Creek. We are not permitting Freeman to use any of Macoupin Creek as a mixing zone because Macoupin Creek is apparently a relatively healthy body of water, although not as healthy downstream of the confluence as upstream. There is no reason to take any chance of compromising the quality of Macoupin Creek.

We are allowing the use of the unnamed branch as a mixing zone. If Freeman's discharges are able to meet the effluent criteria set forth in Rule 606 of Pollution Control Board Regulations: Chapter 4: Mine Related Pollution, as Freeman assures us they will, there should be no further deterioration of the unnamed branch, and in fact, there may be improvement.

Underlying all of the above discussion is the premise that the consistent malfunctions so manifest in Freeman's old water treatment system will not occur in the future. The maintenance and operation must be significantly better under the new system than it was under the old, otherwise Freeman's system will continue to degrade the waters of the State, thereby causing further violations of the Environmental Protection Act and Pollution Control Board Regulations.

The Agency has contended that Freeman is subject to Chapter 4: Mine Related Pollution. We agree in part and disagree in part.

The lime sludge constantly being created by Freeman's water treatment system is clearly mine refuse as defined in Chapter 4: Mine Related Pollution. Freeman will be ordered to apply to the Agency for a permit to operate its water treatment system pursuant to the Mine Related Pollution Regulations on a basis consistent with our Opinion and Order.

The 70 acre mine refuse pile was created in its entirety before the effective date of the Mine Related Pollution Regulations, and therefore is not covered by those regulations. This does not mean that Freeman may not in the future be required to

take further pollution abatement action. Such further action may or may not include covering the mine refuse pile, which according to affidavits filed with the Agency's brief, is feasible and effective, albeit quite costly. However, at this time, we are satisfied that if Freeman's system works as well as Freeman has claimed, there will not be continued water pollution.

Because of the uncertainties involved in Freeman's control program, we are requiring Freeman to post a performance bond or other security in the amount of \$25,000. This security shall be released by the Agency when and if the Agency certifies that Freeman's discharges are meeting the effluent criteria in Rule 606 of the Mine Related Pollution Regulations, and the Water Quality Standards in Chapter 3: Water Pollution Regulations. Accordingly, Freeman will be required to submit monthly reports to the Agency, regarding the Rule 606 effluent criteria and the Chapter 3: Water Quality Standards.

For the repeated and consistent slipshod method in which Freeman operated and maintained its water treatment system throughout the summer of 1971, which resulted in marked degradation in the quality of the waters of the State, we are imposing a penalty of \$5,000. The amount of the fine would be greater were it not for Freeman's rapid attempts to correct the problems after being notified of them by the Agency.

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

ORDER

1. Freeman shall cease and desist from violations of SWB-14, Rules 1.03, 1.05(b), 1.07, 1.08(10)(b)(3) and 1.08(10)(c); and from violations of Sections 12(a) and (d) of the Act.

2. Freeman shall pay a penalty of \$5,000 for violations of Sections 12(a) and (d) of the Act and Rules 1.03, 1.05(b), 1.07, 1.08(10)(b)(3) and 1.08(10)(c) of SWB-14. Payment, to be made within 35 days from the date of this Order, shall be made by check or money order to: Fiscal Services Division, Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

3. Freeman shall apply to the Agency for a permit pursuant to Part II: Permits of Chapter IV: Mine Related Pollution, to operate its water treatment system, the requirements of said permit to be consistent with the Opinion.

4. Freeman shall operate and maintain its water treatment system as described in the Stipulation so as to meet the effluent criteria of Rule 606 of Chapter IV: Mine Related Pollution, and

the Water Quality Standards of Chapter III: Water Pollution, the Water Quality Standards to be met after use of a mixing zone as described in the Opinion.

5. Freeman shall file monthly reports with the Agency describing its discharges in relation to Rule 606 of Chapter IV: Mine Related Pollution, and in relation to the Water Quality Standards of Chapter III: Water Pollution.

6. Freeman shall post with the Agency a performance bond or other security in the amount of \$25,000 in a form acceptable to the Agency. This bond shall be posted within 35 days from the date of this Order, and shall be mailed to: Fiscal Services Division, Environmental Protection Agency, 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 22nd day of _____, 1973, by a vote of _____ to _____.
