ILLINOIS POLLUTION CONTROL BOARD
May 3, 1971

ENVIRONMENTAL PROTECTION AGENCY	)	
	)	
v.	)	#70-38
	)	
MODERN PLATING CORPORATION	)	
MODERN PLATING CORPORATION	)	
	)	
v.	)	#71-6
	)	
ENVIRONMENTAL PROTECTION AGENCY	)	CONSOLIDATED

Fred Prillaman, for the Environmental Protection Agency

Eckert, Schmelzle & Eckert, Freeport, for Modern Plating Corporation

OPINION OF THE BOARD (BY MR. LAWTON):

Complaint was filed by the Environmental Protection Agency (EPA) against Modern Plating Corporation, Respondent, alleging that between October 3, 1967 and June 30, 1970, as a consequence of its plating operations in Freeport, Illinois, Respondent polluted the Pecatonica River, by the discharge of "cyanide, zinc and other matter" in violation of Section 10 of the Sanitary Water Board Act, Rules and Regulations of the Sanitary Water Board SWB5, Art. I, and Technical Release 20-22 of the Sanitary Water Board.

The complaint further alleges that from July 1, 1970 to the date of the filing of the complaint, Respondent discharged contaminants from its plating operation into the Pecatonica River so as to cause water pollution in violation of Section 12(a) of the Environmental Protection Act, and the foregoing Rules and Technical Release of the Sanitary Water Board, continued in effect by Section 49(c) of the Environmental Protection Act. At the close of the hearing, the Agency amended Paragraph 2(b) of the complaint alleging violation of Paragraph 1.05 of Sanitary Water Board Regulation SWB11.

Section 10 of the Sanitary Water Board Act prohibits discharges into the waters of the State so as to cause water pollution defined to require a showing of nuisance or likelihood of adverse effect on the public health or welfare. SWB5 is a zero effluent standard for cyanide. TR20-22 is a set of effluent criteria establishing recommended limits for specified contaminants, promulgated by the Technical Secretary of the Sanitary Water Board but never adopted by the Board as a regulation. Section 12(a) of the Environmental Protection Act prohibits discharge of contaminants into the waters of the State so as to cause pollution as defined in that Act or so as to violate any regulation adopted by the Board. Section 1.05 of SWB-11 is a set of water quality standards for various contaminants applicable to the Pecatonica River.

The Agency asks for the entry of an Order directing Respondent to cease and desist the causing of water pollution and for the assessment of penalties in the maximum statutory amounts permissible during the period of the alleged offenses. Respondent filed an answer denying all material allegations of the complaint and an affirmative defense asserting that while its effluent exceeded the maximum allowable concentrations pursuant to TR20-22, it was in the process of installing facilities that would bring its effluent into compliance with the TR20-22 limits and that prior to completion of the control facilities, it would limit its effluent to concentrations set forth in the answer. Respondent alleges that insistence on immediate compliance with the effluent criteria would necessitate shut-down of the plant with resulting hardship, unemployment of workers, loss of customers and ultimate liquidation of the company. A motion to dismiss was filed contending that the Pollution Control Board lacked jurisdiction to assess fines, that the Environmental Protection Act and Rules and Regulations promulgated thereunder violate the provisions of the United States and Illinois Constitutions, that the complaint is insufficient in law, and that the Rules and Regulations, with the violation of which Respondent is charged, are void in that they violate the Environmental Protection Act.

A petition for variance was filed by Respondent which restates the allegations of the affirmative defense detailing the proposed construction already underway which would bring Respondent's effluent into compliance with TR20-22 standards and which will be completed by September 30, 1971. The variance asks that discharges into the Pecatonica River be permitted until September 30, 1971 in the following amounts which exceed the maximum concentrations on TR20-22, as shown:

	Concentrations Allowed by TR20-22	Concentrations Requested by Variance
Cyanide	.025 ppm	.5 ppm
Chromium (Hexavalent)	.05 ppm	.1 ppm
Chromium (Trivalent)	1.0 ppm	.1 ppm
Copper	.1 ppm	1.5 ppm
Zinc	1.0 ppm	1.5 ppm

Respondent was previously authorized to install treatment plant facilities by the Sanitary Water Board pursuant to permit dated June 16, 1970. The Environmental Protection Agency contends that with diligence these facilities could by now have been in operation. The Environmental Protection Agency recommends that the variance be denied.

The Board ordered hearing on the variance which by Order of the Hearing Officer was consolidated with the pending enforcement proceeding. Hearing was held in Freeport on the consolidated proceeding on March 4, 1971. By agreement, the motion to dismiss was taken with the case.

Before considering the merits of the enforcement action and the variance proceeding, we must dispose of the Respondent's Motion to Dismiss, which Motion we deny.

Modern Plating argues in its motion to dismiss that this Board has neither statutory nor constitutional authority to impose money penalties. The statutory argument is quickly refuted: Section 33 (b) of the Environmental Protection Act flatly provides that the Board's order "may include . . . the imposition by the Board of money penalties in accord with Title XII of this Act." Title XII contains, in section 42, both a specification of the permissible penalty amounts and authorization of an alternative means of collecting them, namely, through a civil action filed by the State's Attorney or by the Attorney General. The reference to this provision in section 33 (b) quite plainly was intended to specify the amount of the penalty; explicit language authorizing the imposition of penalties by the Board would be deprived of all meaning if Title XII were held to provide the exclusive procedure for assessing penalties.

The company's constitutional argument has two prongs: that the power to impose penalties is a judicial power that cannot be delegated to an administrative tribunal, and that money penalties are in essence a criminal sanction that cannot be imposed without a jury trial. These arguments, like those relating to the delegation of rule-making authority in Environmental Protection Agency v. Granite City Steel Co., # 70-34 (March 17, 1971), attempt to undo nearly a century of constitutional history. They represent a basic unwillingness to accept the long-established constitutional fact that legislatures may entrust to administrative tribunals, under proper procedural safeguards, a great many functions that might conceivably have been entrusted to trial courts.

The federal Congress recognized the need for specialized administrative tribunals as early as 1887, when it created the Interstate Commerce Commission with jurisdiction to resolve disputes over such matters as railroad rates and to make binding orders on the basis of its findings of fact. That such authority could have been given to a court instead does not make its grant to the Commission invalid. The constitutionality of a grant of authority to an administrative agency to function essentially as a specialized trial court was firmly settled in the federal courts by Crowell v. Benson, 285 U.S. 22 (1932), which upheld a federal workmen's-compensation statute against arguments that the creation of an administrative tribunal offended the due-process clause and the separation of powers:

It was within the power of Congress, the Supreme Court held,

> "to furnish a prompt, continuous, expert, and inexpensive method for dealing with a class of questions of fact which are peculiarly suited to examination and determination by an administrative agency specially assigned to that task. . . . There is no requirement that, in order to maintain the essential attributes for the judicial power, all determinations of fact . . . shall be made by judges. . . . We are unable to find any constitutional obstacle to the action of the Congress in availing itself of a method shown by experience to be essential in order to apply its standards to the thousands of cases involved, thus relieving the courts of a most serious burden while preserving their complete authority [by judicial review] to insure the proper application of the law."

These principles have been long recognized by both the General Assembly and the courts in Illinois. Numerous quasi-judicial tribunals have been created in this State, as elsewhere, with authority to conduct hearings and issue a variety of orders in individual cases that could have been entrusted to the courts. Workmen's compensation, handled by the Industrial Commission, is one familiar example, see Ill.Rev. Stat. Ch. 48, § 138.19 (1969), upheld against separation-of-powers and jury trial arguments in Grand Trunk Western Ry. Co. v. Industrial Commission, 291 Ill. 167, 125 NE 748 (1920); Nega v. Chicago Ry. Co., 317 Ill. 482, 148 NE 250; See Greenarch v. Industrial Commission, 10 Ill. 2d 450, 140 NE 2d 665 (1957). The many quasi-judicial functions of the Illinois Commerce Commission, often sustained by the courts, are another, see Sprague v. Biggs, 390 Ill. 537, 62 NE 2d 420 (1945). Our predecessors, the Sanitary Water Board had authority to find the facts and to issue binding cease-and-desist orders, see Dunlap Lake Property Owners Assn., Inc. v. City of Edwardsville, 22 Ill. App 2d 95 159 NE 2d 4 (1959); City of Murphysboro v. Sanitary Water Board 10 Ill. App 2d 111, 134 NE 2d 522 (1956). The Fair Employment Practices Commission furnishes still another example. See Motorola, Inc. v. Fair Employment Practices Commission, 34 Ill. 2d 266, 215 NE 2d 286 (1966).

There is nothing novel about the conferring of quasi-judicial powers upon an administrative agency. Because of the enormous volume of specialized cases requiring expeditious treatment, as the Supreme Court held in Crowell v. Benson, supra, government would have a difficult time getting its work done without such agencies. What is novel is that an argument against such authority can still be heard today. Moreover, the Illinois Constitution explicitly contemplates that such agencies may act essentially as trial courts, for it flatly provides for direct review of administrative orders in the Appellate Courts.

There is no special taboo in this State against the entry of an order requiring the payment of money by an administrative agency otherwise capable of functioning as a trial tribunal. The award of money is no more inherently or exclusively judicial than is an order requiring or forbidding the doing of any other act, and cease-and-desist orders are entered every day by administrative agencies without constitutional question. That there is nothing special about money is established by the workmen's-compensation cases, supra, which have long upheld the power of an administrative agency to order the payment of money, subject to limited judicial review.

Nor is there anything special or forbidding about the issuance of an order requiring the payment of money to the State as a civil penalty. No reason appears for suggesting that, although an agency or board may order the payment of money to an individual complainant, it may not order the payment of money to the State. All the arguments in favor of administrative power to enter other types of orders apply with equal force to money penalties: specialization, expedition, inexpensive procedures, and the avoidance of an intolerable burden on the courts. The federal courts have upheld the authority of an administrative tribunal to impose money penalties, see Lloyd Sabaudo Societas v. Elting, 287 U.S. 329, 335 (1932): "Due process of law does not require that the courts, rather than administrative officers, be charged, in any case, with determining the facts upon which the imposition of such a fine depends . . . . Congress may choose the administrative rather than the judicial method of imposing them." This principle has recently been recognized as well by the Supreme Court of Utah. Wycoff Co. v. Public Service Commission, 13 Utah 2d 123, 369P 2d 283 (1962)cert. den. 371 U.S. 819.

Illinois too has long allowed administrative tribunals to impose penalties. The Industrial Commission is empowered by statute (Ill. Rev. Stat. ch. 48, § 138.19(k) (1969)) to award an additional 50% of the basic workmen's-compensation sum as a penalty for delay in payment, and penalties awarded by the Commission have been recently upheld by the Illinois Supreme Court. See Albert Mojonnier, Inc. v. Industrial Commission, 41 Ill. 2d 128, 242 N.E. 2d 184 (1968). And the authority of the Department of Finance to impose penalties in certain tax cases was upheld in Dep't of Finance v. Gandolfi, 375 Ill. 237, 30 N.E. 2d 737 (1941)

The company cites Reid v. Smith, 375 Ill. 147, 30 N.E. 2d 908 (1940), as standing for the contrary proposition. It does not. The court in Reid found numerous grounds on which to strike down a statute requiring the payment of the "prevailing wage" to employees on government contracts. For the most part the opinion was based on more recently discredited notions regarding substantive due process and the delegation of legislative power, neither of which

is relevant to our case. A single paragraph in the Reid opinion, however, without stating any reasons, recites that a provision authorizing the contracting body of the Department of Labor to withhold penalties from the contractor for violations of the statute "confers judicial power upon such bodies contrary to Article 3 of the constitution. . . ."

The language of Reid gives no indication that the court believed there was anything special about the award of money penalties. The impression conveyed is that quasi-judicial functions of any kind could not be conferred in the manner of that statute. At first glance this statement appears inconsistent with the State's long history of upholding the quasi-judicial powers of administrative tribunals, and to the extent it is it should be viewed as a "sport" and ignored. Quite possibly, however, the court was concerned in Reid because quasi-judicial power was attempted to be conferred upon purely executive officers, to be exercised without procedural safeguards such as those governing proceedings before this Board. The vice of the statute in Reid was not that money penalties were involved, for other Illinois cases have upheld administrative money penalties and for sound reasons; it was that the penalties were to be imposed without quasi-judicial safeguards.

An administrative order to pay money to either a governmental or non-governmental entity which Order is granted without the right of a jury trial is not a novel concept nor in violation of constitutional principles. The constitutional right to a trial by jury is guaranteed by the 6th Amendment of the United States Constitution in all criminal prosecutions and the 7th Amendment "in suits at common law." An administrative order to pay a penalty is not the consequence of a criminal prosecution, and such payment does not constitute a criminal penalty. Helvering v. Mitchell, 303 U.S. 391. (1938) Nor is the proceeding before an administrative Agency a suit at common law. See NLRB v. Jones & Laughlin Steel Corp., 301 U.S. 1 (1937), where the Supreme Court of the United States held that the 7th Amendment guarantees do not apply to a NLRB award of back wages because such an award is not a common law money judgment. Administrative orders entered without the right of jury trial to pay money have been upheld against constitutional challenge in Workman's Compensation Orders entered by the Industrial Commission. See Great Western Railway Co. v. Industrial Commission, supra; in back wages awards under the National Labor Relations Act, see NLRB v. Jones & Laughlin Steel Corp., supra; in cases involving penalties on a bond determined by the Department of Finance, see People, ex rel, Rice v. Wilson, 364 Ill. 406 4 N.E. 2nd 847 (1936), where the Supreme Court of Illinois held valid against constitutional arguments the imposition by the Director of Finance of a penalty on a bond required under the provisions of the Motor Fuel Tax Law "It cannot be said that the Act is invalid as delegating legislative or judicial powers to the Department nor

that the amount fixed in the bond was an unreasonable exercise of the administrative discretion vested in the department". A lower court judgment for the amount of the penalty was affirmed.

In People v. Crawford, 80 Ill. App. 2nd 237 225 N.E. 2nd 80(1967) the Director of Labor was authorized under the Unemployment Compensation Act to determine and assess unemployment compensation contributions, interest and penalties as provided in the Act. In suit filed for the amount of the taxes and penalties due, the Defendant contended that he was deprived of a right to a trial by jury in a determination and assessment of the taxes and penalties imposed. In holding the provisions of the Unemployment Compensation Act relating to administrative investigations, hearings, decisions and collections to be constitutional, the court said:

> "It is well settled, however, that a Defendant is not entitled to a trial by jury in tax proceedings before an administrative agency...Hoffman v. Department of Finance- 374 Ill. 494, 30 N. E. 2nd 34...The principles of law are analogous to those enunciated by the Illinois Supreme Court in Department of Finance v. Cohen, 369 Ill. 510, 516-517, 17 N. E. 2d 327, 329, relating to the Retailer's Occupation Tax Act:
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> > 'The statute sets forth with great detail the matters which must go into the monthly return, and lays a guide which, when followed, leaves nothing open for arbitrary discretion. The legislature cannot deal with the details of every particular case, and reasonable discretion as to the manner of executing a law must necessarily be given to administrative officers***The sections of the statute complained of do not violate the constitution by investing administrative officers with judicial powers, and the objection that appellant is deprived of property without due process of law has already been adversely decided in Reif v. Barrett, supra, [355 Ill. 104, 188 N. E. 889]. Moreover, ***the act provides a method of reviewing the action of the department***'".

Courts of other jurisdictions have adopted the same position. In Wycoff Co. v. Public Service Comission of Utah, 369 P. 2nd 283 (1962), the Public Service Commission assessed an $18,500.00 penalty against a carrier for violating weight restrictions imposed by the Commission. In upholding the action of the Commission, the Court said:

"There is no question but that in performing its multifarious duties in franchising and regulating public utilities, the Commission is required to and does perform some functions of a judicial or quasi-judicial nature; nor that it is within the competence of the legislature to confer upon the Commission the power to do so and to enforce the law and its regulations made pursuant thereto by administrative procedures. It is well established that this includes the imposition of a monetary penalty for violation of law or lawful orders or regulations promulgated by the Commission within the scope of its administrative responsibility. The fact that our statute provides the Commission with an auxiliary remedy, by going to court if that becomes necessary, does not mean that the Commission cannot impose the penalty prescribed by the Public Utilities Act. In that regard we have the guidance of decisions from other jurisdictions having statutes similar to ours."

Clearly, neither the penalty provisions of the Environmental Protection Act nor the Order of the Board are void for failing to provide for trial by jury.

The assertion that the complaint is insufficient in law is wholly without merit. The complaint specifies all statutory and regulatory provisions of which violations are asserted, the dates of the alleged offenses, the waters affected and the character of the pollutants emitted by Respondent's operation. Lastly, no reason suggests itself why any of the Rules and Regulations relative to which violations are asserted, contravene any of the provisions of the Environmental Protection Act as contended by Respondent.

We now consider the merits of the case.

We find Respondent to have violated SWB5 on the dates alleged, and, order it to cease and desist the discharge of cyanide in any amounts from either of its plants. We find that Respondent's violation of SWB5 constitutes a violation of Section 12(a) of the Environmental Protection Act. We assess a penalty in the amount of $5,000.00 for the cyanide discharges. We find Respondent not guilty of violating Section 10 of the Sanitary Water Board Act, Technical Release 20-22, or Section 1.05 of Sanitary Water Board SWB11. Technical Release 20-22 is a criteria document promulgated by the Technical Secretary of the Sanitary Water Board but never adopted by the Board as a regulation and lacking the attributes of an enforceable legal standard. Section 10 of the Sanitary Water Board Act prohibits water pollution, defined in the Act to require a showing that the discharges alleged are likely to create a nuisance or render such waters injurious to the public health or welfare. The record is devoid of any evidence manifesting that the discharges alleged would produce such results. SWB11, Section 1.05 is a Water Quality Standard and not an Effluent Standard. Since the only tests conducted were of water from Respondent's sewer and not from the river, there is no evidence in the record to support a Water Quality Standard violation, irrespective of what the effluent measurement may have been.

We grant the variance requested by Respondent to permit concentrations of chromium, copper and zinc in its effluent to September 30, 1971, subject to the terms and conditions hereinafter provided in the decretal portion of this Opinion.

Modern Plating Corporation, employing approximately 180 employees and having a $15,000,000.00 payroll, operates two plating plants in Freeport, pumping the effluent from each of its operations into the Pecatonica River at a rate of 500,000 gallons a day. It processes between 2-1/2 and 3 million pounds of raw material each month, consisting principally of formed carbon steel parts processed through electroplating solutions for decorative and corrosion protecting purposes. The principal operation of Respondent is conducted at the "new" plant acquired in 1962. The so-called "old" plant represents approximately 10% of Respondent's production. Waste water containing cyanide and heavy metals employed in Respondent's plating operation are discharged into privately-owned sewers which, in turn, discharge into the Pecatonica River.

Previous efforts to connect Respondent's sewers with the municipal sewer system were disapproved by the City because of uncertainty as to the character and intensity of the effluent. Alkaline chlorination treatment for cyanide and poly electrolyte precipitation for zinc are employed at both plants. Respondent conducts plating operations at the new plant using several closed loop circuits, re-cyling the rinse water rather than discharging it. Effluent that is discharged from the building is treated with sodium hypochlorite by use of a chlorinator. Five tanks discharge cyanide-containing effluent while numerous others discharge caustic wastes, acids and zinc. See testimony of Lindstrom (R.46-48). No specific treatment facilities for heavy metals are employed other than noted above. The evidence indicates that no other industrial discharges of heavy metal or cyanide in the Pecatonica River are caused by industries other than Respondent.

Tests conducted by the Environmental Protection Agency between October 31, 1967 and January 5, 1971, (EPA Ex. 1, 2 and 3) show the presence of cyanide in violation of SWB5 and heavy metal concentrations in the effluent in excess of water quality standards and criteria for cyanide, copper, cadmium, zinc, chromium and iron. Test water was taken from Respondent's discharges at manholes in Respondent's sewers located approximately 1/4 of a mile from the river. On October 6, 1970, cyanide concentrations were recorded at 160 ppm, which is 6,400 times the SWB-11 and TR 20-22 water quality criteria and obviously in excess of the zero effluent standard described in SWB5. EPA Ex. 1 summarizes all tests at the new plant between the dates mentioned. Later tests made at the new plant on January 16, 1971, January 20, 1971 and February 3, 1971, disclosed the discharge of heavy metals in excess of water quality standards. The absence of cyanide suggests the efficiency of its chlorination process. Tests made at the old plant on January 18 and January 27, 1971 disclose the discharge of heavy metals, in excess of water quality standards. In summary, it is manifest that SWB5 the zero effluent standard for cyanide, has been repeatedly violated. However, while the effluent shows heavy metal concentrations in amounts that exceed water quality standards, they do not show violation of water quality standards since no tests were conducted in the river itself.

Paul Massion, Assistant Secretary of Respondent, in charge of manufacturing and engineering, testified on Respondent's efforts to control pollutional discharges (R.87-119). The new plant was acquired in 1962 and facilities for waste water treatment were installed at a cost of approximately $60,000.000. However, the waste water treatment process,while causing a reduction in effluents, purportedly impaired the quality of the metal plating. A copper inhibitor was utilized at a cost of $9.50 per gallon. In 1966, a Pfaudler cyanide recovery system was installed at a cost of $36,000.00. During the same year, the State Sanitary Water Board

advised Respondent that its effluent failed to meet new guidelines. Two years of consultation followed. The Nalco Chemical Corporation of Chicago conducted a survey of the plant's operation and waste water treatment and made its report to Respondent in June, 1968, which was discussed with representatives of the State Sanitary Water Board. Respondent was directed to implement the recommendations. As a consequence of the implementation of this report, concentration levels of certain contaminants were reduced. Consulting engineering firms were contacted to submit proposals for design and construction of a complete waste water facility. Proposals of various types were received from at least four concerns for waste treatment facilities. In September, 1969, the contract was entered into between Respondent and Rock Valley Water Conditioning Company for design of a new waste treatment facility. A schedule of completion was submitted to the State Sanitary Water Board providing for completion of engineering plans by January 31, 1970, the start of construction, by May 1, 1970 and completion by November 30, 1970. However, because "more detailed research" was necessary, plans were not submitted to the Sanitary Water Board until May of 1970 (R.100).

In order to accommodate the separation of rinse water processes into three basic types, two buildings were torn down and a new one erected and new drainage lines have been incorporated into the new building. According to the witness, the incorporation of separate plastic sewer lines resulted in a cost of approximately $120,000.00. A duplex-system deionizer had been purchased and installed in 1968 which now controls the rinses from all decorative chromium and hard chromium in a closed loop system. The regenerate is channeled into a stand-by tank where it is treated and reduced through sulphonation. According to the witness, over the past 2-1/2 years, approximately 17,000 gallons of zinc plating solution have been converted to a low cyanide or non-cyanide process. The additional agents used as substitutes for cyanide allegedly exceed the cost of $20,000.00.

The permit was finally issued by the Sanitary Water Board for construction of the waste treatment facility on June 16, 1970. A construction contract was entered into with the Garman Construction Company on December 30, 1970. The total cost of the new waste treatment facility is estimated to be approximately $550,000.00. Construction under the contract began in January, 1971. Completion of the plant is anticipated by September 30, 1971, which according to Mr. Massion, will provide an operation in full compliance with all applicable statutes and regulations of the state. The evidence indicated that while the old plant would continue in operation, its effluent discharge would be connected with the municipal sewer system. No variance is requested with regard to this plant.

Representatives of Rock Valley Water Conditioning, Inc. testified that certain difficulty in the preparation of bids resulted from the allocation of responsibilities between the Respondent and the general contractor (R.169). The contract was divided into three portions, civil, mechanical and electrical. The civil portion was assigned to a general contractor with Respondent performing the balance.

Leonard Lindstrom, of the Environmental Protection Agency, noted that the separation of zinc, cyanide, and chromium and the treatment of cyanide by chlorination are not new concepts. (R.194). John Anderson, Chief Engineer of Rock Valley Water Conditioning Company responded that the mere presence of a treatment system does not render its use necessarily feasible "to do a good job, you must have an integrated plant that can handle the job and do it economically". (R.179-180). Plant design is for a million and one-half gallons per day of total treatment, which will allow for future expansion of the facilities.

Evidence was introduced of a substantial fishkill which was discovered in the Pecatonica River in the month of March, 1969. While the evidence suggested that the fishkill was a consequence of effluent pollution and not lack of oxygen, the evidence was insufficient to sustain a causal connection between Respondent's effluent discharges and the fishkill.

Maurice McCarthy, Vice-President and Secretary-Treasurer of the Respondent asserted that contamination resulting from metal plating operation is "necessary and inevitable", a conclusion we refuse to accept. The record supports the contentions of the Agency that abatement treatment and precipitation equipment for heavy metals and cyanide have been available since 1960. Respondent has been repeatedly warned that it would be required to take affirmative action to reduce its pollutional discharge. We have before us, as we have had in many cases, a record of procrastination, innumerable studies and minimum efforts to achieve compliance with the law. It is particularly inexcusable that positive steps were not taken to abate the emission of cyanide in the face of the zero effluent standard in SWB5. We take some degree of comfort in the fact that, belatedly, Respondent has embarked upon construction of a plant which will bring its effluent into compliance with the relevant state regulations. In structuring its order, however, the Board is confronted with the fact that with the exception of the cyanide effluent standard, there are no effluent standards in existence for heavy metals and the Agency's measurements in the instant case were not made in the river so as to serve as a foundation for alleged violations of water quality standards.

As noted above, SWB11 is a water quality standard, TR 20-22 is not a regulation but a criteria document, and violation of the old Sanitary Water Board Act, Section 10, requires that in order to constitute water pollution, there must be an affirmative showing of the

existence or likelihood of a nuisance or that the receiving waters will be rendered injurious to the public health. It is highly possible that the effluent discharges of Respondent would constitute violation of water quality standards applicable to the Pecatonica River and that such discharges would also constitute a nuisance and render the waters harmful or injurious to the public health or legitimate uses, as provided in the old Sanitary Water Board Act. However, because of the absence of testing in the river itself, and because of the absence of enforceable effluent standards covering the contaminants found in Respondent's effluent, we are limited to a finding of violation only in regard to the cyanide emissions and the resulting violation of the Environmental Protection Act, Section 12(a), as a consequence of a violation of Regulations SWB5.

This is not to say that we condone in any way, what Respondent has been doing. It does dramatically demonstrate the need for adoption of effluent standards, a program which this Board is diligently pursuing. Proper testing in the river will determine how Respondent's effluent is affecting the water quality standards set forth in SWB11 and we direct the Agency to make proper tests in the river in the vicinity of Respondent's outfall to ascertain what effect Respondent's discharges do, in fact, have on the water quality of the river.

At the present time, after five years of delay, Respondent is pursuing a program which will achieve compliance with the relevant regulations of the state. In consideration of Respondent's operation being in full compliance by September 30, 1971, we grant the variance as requested (except as to the proposed cyanide emission) permitting the amounts of effluent as set forth in the variance petition. Recent tests showing absence of cyanide in the effluent indicate that recently installed alkaline chlorination equipment is capable of preventing such discharge. Insistence on immediate compliance with other effluent criteria would result in a closing of the plant with resulting unemployment of 180 persons and the possible insolvency of the operation. The variance will be granted subject to the terms and conditions hereinafter set forth.

The foregoing opinion constitutes the finding of fact and conclusions of law by the Board.

IT IS THE ORDER OF THE POLLUTION CONTROL BOARD:

1. Respondent, Modern Plating Corporation, is found to have violated SWB 5 and Section 12(a) of the Environmental Protection Act as a consequence of its pollutional discharges of cyanide on the dates stated in EPA Exs. 1, 2 and 3, filed herein. Respondent is ordered to cease and desist all discharges of cyanide from both of its plants into the Pecatonica River.

2. Respondent is assessed a penalty in the amount of $5,000.00 for the illegal cyanide discharges aforesaid, and the resulting violation of SWB5 and Section 12(a) of the Environmental Protection Act.

3. Respondent is hereby granted a variance to September 30, 1971, to discharge in its effluent contaminants in the following concentrations:

Chromium (Hexavalent)	.1 ppm
Chrome (Trivalent)	.1 ppm
Copper	1.5 ppm
Zinc	1.5 ppm

which concentrations may result in violation of water quality standards as applied to the Pecatonica River. This variance is granted subject to the following terms and conditions:

(a) Respondent shall pursue with diligence the construction of its waste water treatment plant subject to plans and specifications indentified in the record as Respondent's Exs. 1 through 15 inclusive, and complete the same by September 30, 1971. On or before June 3, 1971, Respondent shall submit to the Board and to the Agency detailed plans and specifications beyond those previously received in evidence indicating in full the contaminant abatement equipment and processes to be employed, the concentrations of contaminants that will result from the use of such processes and a table of costs correlated to the specific abatement equipment and processes as installed.

(b) On or before September 30, 1971, Respondent shall cause connection of the sewer from its old plant to the Freeport sewer system so that all effluent therefrom shall be pumped into the municipal sewer system from and after said date.

(c) During the period of construction, Respondent shall continue the use of poly electrolyte for the precipitation of heavy metals and of chlorination to prevent the discharge of cyanide from its effluent.

(d) Respondent shall post with the Environmental Protection Agency, on or before May 15, 1971, a personal bond or other adequate security in such form as the Agency may find satisfactory in the amount of $550,000.00 which will be forfeited to the State of Illinois in the event that either of Respondent's plants are operated after September 30, 1971 in violation of the statutory and regulatory provisions relative to the control of water pollution. Petitioner shall post a further bond in the amount of $50,000.00 in the form as above set forth to be forfeited in the event that cyanide is found in its effluent or that its effluent contains heavy metals in concentrations in excess of those permitted by this variation during the period of this variation.

(e) During the period of this variance allowance, Respondent shall not increase the volume of its pollutional discharges.

4. The Environmental Protection Agency shall make tests every two weeks to ascertain the strength, character and contents of Respondent's effluent. Any finding of the presence of cyanide or contaminants in concentrations in excess of those permitted by this variance shall be grounds for revocation of this variance as well as forfeiture of the bond above provided.

I, Regina E. Ryan, Clerk of the Board, certify that the Board has approved the above Opinion this 3 day of May, 1971.