ILLINOIS POLLUTION CONTROL BOARD
July 24, 1980

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| IN THE MATTER OF: | ) | |
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| PROPOSED AMENDMENTS TO CHAPTER 4 | ) | R76-20 |
| OF THE REGULATIONS OF THE | ) | R77-10 |
| ILLINOIS POLLUTION CONTROL BOARD. | ) | |

FINAL OPINION OF THE BOARD (by D. Satchell):

This matter comes before the Board upon two proposals for regulatory change. On September 21, 1976 Ohio Power Company filed a petition for a change in the definition of mine storage facility, docketed R76-20. On April 20, 1977 the Environmental Protection Agency (Agency) filed a petition proposing to repeal Chapter 4: Mine Related Pollution and substitute a new version, docketed R77-10. On August 18, 1977 the proceedings were consolidated on motion of Ohio Power Company. The proposal in R76-20 was published in Environmental Register Number 135 on August 15, 1976. R77-10 was published in Environmental Register Number 146 on May 2, 1977. Public hearings on the proposal were held in Springfield on October 31, 1977 and in Carbondale on November 2 and 3, 1977. During the course of these hearings, two amended proposals were presented by the Agency.

On November 21, 1978 the Institute of Natural Resources (Institute), pursuant to suggestion made by the Illinois Coal Association (Coal Association or ICA) at the merit hearings, filed with the Board a proposal for interim regulations (R. 141). On December 14, 1978 the Board ordered the record in this proceeding held open to take evidence on the proposal for an interim regulation concerning total dissolved solids in mine discharges (Rule 605; 32 PCB 321).

An Economic Impact Study (EcIS) was prepared by the Institute. Public hearings on the EcIS were held in Springfield on July 31 and in Carbondale on August 2, 1979. At these hearings evidence was also taken on the merits of the Institute's interim proposal. On September 5, 1979 the Agency filed a third amended proposal.

On December 11, 1979 the Board entered a Proposed Order in this matter (Proposed Rule, First Notice). On December 24, 1979 the proposal appeared in Environmental Register Number 207 and

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The Board acknowledges the contributions of Mr. Morton F. Dorothy, Administrative Assistant to the Board and Hearing Officer in this proceeding.

on January 11, 1980 in Illinois Register. On January 24, 1980 the Board entered a Proposed Opinion. On May 15, 1980 the Board entered an Order modifying the proposal in response to comments received during the first notice period (Proposed Rule, Second Notice). On June 17, 1980 the Joint Committee on Administrative Rules (Joint Committee) indicated that no objection would issue. Subsequently the Board modified the proposal in response to comments from the Joint Committee staff (Adopted Rule, Final Order, July 24, 1980).

## SUMMARY OF CHANGES FROM OLD CHAPTER 4

The Chapter 4 revisions are largely to accommodate the NPDES permit requirement. Currently mines require two environmental permits in Illinois: they must have a Chapter 4 state permit, and, in most cases, an NPDES Permit under Chapter 3. The new Chapter 4 provides specifically for Chapter 4 NPDES Permits. The Agency regards the old permit requirement as essentially duplicative. The new Chapter 4 will exempt from the state permit requirement those mines which hold an NPDES Permit (Rule 402).

The Proposal also contains a significant expansion of the scope of Chapter 4 to include coal transfer stations. This was the proposal of Ohio Power Company which was denominated R76-20 and consolidated with the Agency's proposal. This will allow coal transfer and similar facilities to take advantage of the more lenient effluent standards contained in Part VI of Chapter 4 (Rule 201: "Mining Activities"). Since the inclusion of coal transfer facilities under Chapter 4 would represent a significant expansion of the permit requirement, there are also provided exemptions from the permit requirement for smaller facilities (Rule 403).

The effluent limitations contained in Chapter 4 have been revised to more closely follow the federal guidelines. The averaging rule has also been changed to be similar to that found in federal guidelines and in the proposal in R76-21 (Rules 601, 606).

The present Chapter 4 requires an abandonment permit before a mine is abandoned. The Agency has found these provisions to be unworkable. The new Chapter 4 will provide for an abandonment plan which is filed with the permit application and incorporated into the permit as a condition (Rule 509).

Most of the technical rules governing coal mining have been removed from Chapter 4. The remaining document is largely procedural. There is, however, provision for publication of an Agency guidance document which would contain design criteria for coal mines and treatment works (Rule 501). There is a similar provision in Chapter 3: Water Pollution (Rule 967).

Most of the controversy has centered around Rule 605 which is unchanged from the old Chapter 4. This rule requires that coal mine effluents not cause violation of the water quality standards contained in Chapter 3. Apparently most of the coal mines in the state cause such water quality violations with respect to total dissolved solids (TDS), chloride and sulfate. Late in the proceeding the Institute and the Agency proposed a temporary rule to exempt coal mines from Rule 605 into the year 1981, at which time the Institute intends to propose an alternative to Rule 605 (32 PCB 321). In the interim, compliance will be required with good housekeeping practices contained in a code of good mining practices promulgated by a joint government-industry task force.

## PUBLIC COMMENTS

Prior to entry of the Order of December 11, 1980 (Proposed Rule, First Notice) the Board received a number of public comments. These are discussed in the Proposed Opinion of January 24, 1980. Discussion of these comments has been omitted from this Final Opinion, along with discussion of modifications in the Agency proposal made prior to entry of the Proposed Rule, First Notice Order, except where the discussion is particularly helpful in understanding the language adopted. The Final Opinion consists of a general summary of the rule, differences between the old Chapter 4 and the adopted rule, changes made in response to comments made during the first notice period and changes made in response to Joint Committee staff comments during the second notice period.

The Coal Association and the Agency each filed twenty-eight specific comments (ICA Comments and Agency Comments). These will be discussed in connection with the affected rules. The Agency's general comments will also be discussed with the rules most closely affected.

The Coal Association in its general comment requested that the Board hold informational hearings to determine whether Board regulation of the coal industry is necessary considering the regulatory

scheme being adopted under the Surface Mining Land Conservation and Reclamation Act (Reclamation Act). The Coal Association has a right under Section 28 of the Act to propose regulations before the Board. The Board will consider any proposal which conforms with the Act and Procedural Rules 203 and 204.

The Board also received a comment signed by Mr. and Mrs. William A. Brown, Mr and Mrs. Tom Grampp, Mr. and Mrs. Fred Noyes and Mr. and Mrs. A. J. Van Hook, R. R. 7, Bloomington, Illinois 61701. The citizen commenters requested modification of Chapter 4 to provide for notification of neighboring landowners when a Chapter 4 permit application is received. This comment was also deemed a new proposal for regulations and was docketed as R80-3 (Orders February 21, 1980 and March 20, 1980). The Board declines to make this substantial change in the proposal at this stage in this proceeding.

The following is a summary of the major changes made in response to comments during the first notice period:

1. "Non-point source mine discharge" is now defined and Rules 506, 600, 605, 606, 607 and 608 have been modified to reflect this change.

2. Definition of "mining activities" and the standard for issuance of construction permits (Rules 304, 401) have been modified.

3. Department of Mines and Minerals permit applications have been referenced into Rule 504(d).

4. Rules on incorporation of drainage control plans, etc. into permits have been modified (Rules 505(b), 506(b) and 509(b).

5. Compliance may be determined by grab samples where the permit applicant chooses exemption from monitoring by composite samples [Rules 601(b) and 602(f)].

6. Acidity has been made subject to averaging; pH and acidity have been brought under the 10-year, 24-hour precipitation event exception (Rule 606).

## SECOND NOTICE PERIOD

In response to Joint Committee staff comments the Board in its Final Order, Adopted Rules, modified the May 15, 1980 Order (Proposed Rules, Second Notice). Major revisions are summarized as follows:

1. Rules 106 and 704 have been modified to provide that the old Chapter 4 is superseded but not repealed.

2. Rule 301 has been modified to specify what portions of Subpart A of Part IX of Chapter 3 are to be incorporated into Chapter 4.

3. Rule 509 has been modified to provide that the Agency may disregard the one year limitation on abandonment plans when considered with reclamation plans approved under the Reclamation Act.

## STATE OR NPDES PERMIT

Although elimination of duplicate permits and provisions for exemption from the state permit requirements will result in dollar savings to the Agency and to the industry, it adds considerable complexity to Chapter 4. A facility carrying out mining activities may fall into one of the following categories:

1. Combined Chapter 3 and Chapter 4 NPDES permit:

2. Chapter 4 NPDES permit;

3. State permit; or

4. Exempt from state permit (and not required to have an NPDES permit).

The following outline determines into which permit category a facility will fall:

1. Does the applicant already possess a Chapter 4 state or NPDES permit for the facility?

   --If so, is permit modification required under Rules 304(b) or 407?

2. If not, does the applicant propose to carry out "mining activities" within the meaning of Rule 201?

--If the applicant does not propose to carry out mining activities a Chapter 4 permit is not required under Rule 401.

3. If the application proposes mining activities, then does the applicant already possess a Chapter 3 NPDES permit for the facility [Rule 402(a)]?

   --If so, then the Chapter 4 requirements will be written into the Chapter 3 NPDES permit (Rule 302).

4. If the applicant has no NPDES permit, then does the application propose a discharge from a point source into navigable waters within the meaning of the FWPCA (Rule 402)?

   --If so, then under Rules 300(a) and 302 the requirements of Chapter 3 and Chapter 4 will be written into one NPDES permit for the facility subject to the standard for permit issuance contained in Rule 502.

5. If an NPDES permit is neither held nor required, then does the facility qualify for an exemption from the state permit requirement under Rule 403?

   --If not, a state permit is required under Rule 401.

6. If so, has the Agency notified the facility that a state permit is nevertheless required under Rule 403(c)?

   --If so, a state permit will be written pursuant to Rule 401, subject to the general standard for permit issuance contained in Rule 502; otherwise, a Chapter 4 permit is not required, provided the operator has notified the Agency of the location of the facility and claims exemption prior to the filing of an enforcement action [Rule 302(b)].

There are also construction permits (Rule 401) and construction authorizations (Rule 304). These are special, limited state and NPDES permits, respectively. In the case of a facility which already has a Chapter 4 permit, their issuance will amount to a permit modification in the above outline. In the case of a new Chapter 4 facility, the state or NPDES permit first issued will ordinarily be a construction permit or authorization, although there is flexibility on this point.

## ECONOMIC IMPACT STUDY

The Economic Impact Study was prepared for the Institute by Dr. William C. Hood and Dr. Donald W. Lybecker. The study found few identifiable costs and benefits and concluded that the economic impact of proposed changes would be minimal. The specific findings will be discussed with the individual sections which were found to have an economic impact.

The transcripts of the two sets of hearings are not numbered sequentially. It is therefore necessary to distinguish page numbers. "E" refers to a page number in the economic impact hearings, while "R" refers to a page number in the merit hearings. To aid in cross referencing the Opinion and Order with the old Chapter 4, the comparable section numbers have been listed in parentheses after the heading of each rule in this Opinion. For example, "0-605" is Rule 605 in the old Chapter 4.

## PART I: GENERAL PROVISIONS

### 101 Authority (0-101)

Rule 101 sets forth the Board's authority under the Act to regulate mine related pollution pursuant to Sections 12 and 13 which concern water pollution. The old Chapter 4 also listed Sections 9, 21 and 22 which relate to air pollution, land pollution and refuse disposal. These have been omitted from the revision. Mining activities are subject to these provisions of the Act and to the Board regulations adopted under them--Chapter 2: Air Pollution Control Regulations and Chapter 7: Solid Waste Rules and Regulations, as well as other Board regulations (R. 43).

Mine refuse disposal is regulated by Chapter 4 pursuant to Section 12(d) of the Act which concerns depositing contaminants upon the land so as to create a water pollution hazard. Any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 is exempted from the definition of "waste" in Section 3 of the Act. It is arguable that other mine refuse is also "refuse" or "waste" within the meaning of Sections 3, 21 and 22. However, it is not the Board's intention that disposal of mine refuse on a permitted Chapter 4 facility be subject to Chapter 7 as well as Chapter 4 (Agency Comment 30).

Since Chapter 3 and Chapter 4 both govern water pollution there must be special rules establishing the respective jurisdictions. Chapter 4 governs mining activities which include mine related facilities as defined by Rule 201. Part VI establishes effluent limits for mine discharges (Rule 606). Other discharges and facilities are regulated under Chapter 3.

Rule 101 has been modified to include a specific reference to amendments to the Federal Water Pollution Control Act. Substantial amendments were adopted in 1977. Chapter 4 is intended to conform to the FWPCA as amended prior to the day of the adoption of a Final Order in this proceeding (Agency Comment 1).

102 Policy (0-102)

This is largely unchanged from the old Chapter 4. The wording has been changed to include the defined terms "mining activities" and "mine related facility" (R. 201).

103 Purpose (0-102)

This has been largely unchanged from the second paragraph of old Rule 102. Minor changes in language have been adopted. The permit system is established to "control the multitude of contaminating point and non-point source discharges." In order to ensure that mining activities meet environmental standards, water quality and effluent standards are established (Agency Comment 2).

The Coal Association requested deletion of the reference to non-point source discharges in Rule 103 (ICA Comment 1). However, "non-point source mine discharge" has been defined in Rule 201. The effluent standards of Rule 606 have been made inapplicable to non-point source mine discharges, but the water quality standards of Rule 605 are applicable.

104 Compliance with Other Laws Required (0-701)

This has been changed to indicate required compliance with "The Surface Coal Mining Land Conservation and Reclamation Act." The title of the law passed in 1979 differs slightly from the old title (R. 43, 58, 67).

The Coal Asscciation requested modification of Rule 104 to provide that nothing in Chapter 4 is intended to be inconsistent with or impair the obligation to comply with any other state "or federal laws" affecting the duties of an operator (ICA Comment 2). The change in language requested by the Coal Association has been adopted in the Final Order, Adopted Rules. The Board does not intend to adopt anything in Chapter 4 which is inconsistent with federal mining regulations.

The Coal Association's comment states that, "it is imperative that an operator not be held in violation of

R77-10 when he is attempting to comply with regulations under PL 95-87." This interpretation that Rule 104 creates a defense to Chapter 4 through compliance with the Reclamation Act is incorrect. Rule 104 serves two functions in Chapter 4. First, it is a statement of purpose: If there is an inconsistency with, for instance, the Reclamation Act then Chapter 4 is to be construed consistently with it if possible. Second, Rule 104 makes it clear that compliance with Chapter 4 is not a defense to non-compliance with the Reclamation Act and other laws. If there is an irreconcilable inconsistency with other law, then this may be offered in mitigation in an enforcement case under Section 33(c) of the Act or it may be the basis of a variance or regulatory proposal. However, compliance with other state or federal laws is not a defense.

105 Validity Not Affected (0-702)

This is unchanged.

106 Repealer

Rule 106 has been modified in response to comments by the staff of the Joint Committee on Administrative Rules. The Board will not at this time repeal the old Chapter 4. Instead, Rule 106 has been modified to provide that it is superseded. In the event the new Chapter 4 is stricken or its enforcement stayed, the old Chapter 4 will thereby automatically come into effect.

PART II: DEFINITIONS

200 Terms Defined Elsewhere

This contains a listing of terms used in Chapter 4 which are defined in the Act, Chapter 3 or the FWPCA. "As amended" has been added after the reference to the Federal Water Pollution Control Act here and in Rule 101. "Person" has been removed from Rule 200 and is now defined in Rule 201 (Agency Comment 3). "Point Source Discharge" has been added to the list of terms defined elsewhere.

201 Definitions

Abandon: The definition of abandon has been enlarged to include "transfer of ownership." An operator who sells a mine may be obliged to execute an abandonment plan under Rule 509. Under the old Chapter 4 persons attempted to evade their responsibilities for properly closing a site by transfer to a party with insufficient resources to close the site. This change seeks to remedy this (R. 9; E. 41).

Acid-producing Material: The definition has been changed slightly to clarify the relationship between pyrite, iron and sulfur. Pyritic compounds include pyrite, marcasite and other compounds of iron and sulfur. These are acid-producing. Other compounds of sulfur include sulfates and organic sulfur. Sulfates are totally oxidized and hence do not, as such, produce acid. Organic and elemental sulfur do not occur in large amounts in Illinois coal, but are acid-producing. The definition has also been changed slightly to specify consideration of the "quality of drainage produced by mining on sites with similar soils." This is in recognition of the fact that little mining actually occurs in the soil itself (R. 84).

Affected Land: The definition has been expanded to include all land owned, controlled or used by the operator in connection with mining activities with the exception of the surface area above underground mines. The old definition included only the actual mined area, refuse area, etc. Under Rule 513 the affected land cannot be outside the permit area during the permit term.

The final sentence which related to reclaimed and abandoned affected land has been deleted pursuant to the Coal Association's comments (ICA Comment 3). Rule 510(e) has been modified to provide that the Agency can remove satisfactorily reclaimed land from the category of affected land by issuing a certificate of abandonment (Agency Comment 6; R. 10).

Aquifer: "A zone, stratum or group of strata which can store and transmit water in sufficient quantities for a specific use." This definition has been added on the suggestion of the Coal Association. The definition

of "underground water resources" in the Proposed Order has been deleted. This definition is drawn from 30 C.F.R. §701.5 (ICA Comment 7).

Coal Transfer Facilities or Coal Storage Yard: This is a new definition. Transfer and storage facilities have been included in the definitions of mining activities and mine related facilities and have thus been brought under Chapter 4 regulation. These facilities have much in common with coal mines and often are larger than small mines and pose a similar pollution threat. Effluents from these facilities will now be regulated under Part VI rather than under Chapter 3. Facilities which have NPDES permits will now fall under Part III rather than the permitting provisions of Chapter 3. Facilities which are not required to have NPDES permits may be required to obtain a state permit under Part IV (R. 10, 19, 60; E. 41, 45, 49, 61, 101).

This modification potentially represents a large expansion of the permit requirement. However, Rule 403 provides exemptions from the state permit requirements for domestic retail sales yards and consumer stockpiles. Larger facilities are probably already required to have an NPDES permit, in which event Chapter 4 provisions will be written into the Chapter 3 permit.

The Economic Impact Study concluded that inclusion of coal transfer facilities and storage Yards under Chapter 4 would result both in costs and benefits to the industry. They would have to prepare an abandonment plan at a cost of a few hundred to a few thousand dollars. On the other hand, they will not have to invest as much to construct larger treatment facilities to meet the more stringent effluent standards of Chapter 3 (EcIS 35; E. 41, 45, 61). The looser effluent standards would have some negative effect on the environment. However, most of these facilities are located near major rivers where ample dilution is available (EcIS 17; E. 49, 101).

Construction Authorization: Authorization under Rule 304 to prepare land for mining activities or to construct mine related facilities. Construction authorization is issued to a person who holds or is required to have an NPDES permit (R. 11).

Construction Permit: A permit under Rule 401 allowing the operator to prepare land for mining activities or to construct mine related facilities (R. 11). A construction permit is a state permit issued to an operator who does not hold an NPDES permit. Under Rule 304 it is possible to issue a construction permit to a person who may be required to apply for an NPDES permit. This will not affect the requirement to obtain an NPDES permit for operation, but may simplify administration in case there is doubt as to which type of permit is required.

Construction of mine related facilities is a mining activity. Construction may therefore be permitted by an operating permit as well as a construction permit. The question is not what the title of the permit is but what the language of the permit allows. The construction permit is a special type of operating permit which will usually be issued for a short period of time to allow the operator to undertake something out of the ordinary routine of mining. The construction permit contemplates eventual application for an operating permit before daily operation is begun.

Domestic Retail Sales Yard: A coal stockpile which supplies only homeowners, businesses or small industries or other institutions for individual consumption. This does not include a sales yard located at a mine. On the Agency's motion, a specific exclusion for sales yards which supply large industrial operations has been excluded from the proposal. The word "small" has been inserted in front of industries in the first half of the definition. This does not change the meaning (R. 11, 28; E. 43).

Domestic retail sales yards are excluded from the state permit requirement by Rule 403. This does not, however, exempt such a facility from the requirement of obtaining an NPDES permit if the facility is otherwise required to obtain such a permit, in which case the coal pile will be permitted under Part III of Chapter 4 (E. 84).

Drainage Course: Definition unchanged.

Facility: A facility is a contiguous area of land, including all structures above or below ground, which is owned or controlled by one person. Two permits are required if there are either two isolated pieces of land with one operator or adjacent tracts with two operators. The facility may be larger than the affected land. It may include undisturbed land and contain within it facilities which are regulated under Chapter 3 as well as mine related facilities. The permit area must be contained within one facility, but the permit area may be less than the entire facility.

It is the Board's intention that a site under control of one operator but bisected by a roadway or other easement should be one facility. In the event there are two closely related, but noncontiguous facilities under the control of one operator, the Agency may allow a combined permit application and issue combined permits, if it is convenient to do so. In the event there are separate surface installations serving a single mine, there will be one facility.

The phrase "owned or controlled" does not require permits of both the owner of record title and, for instance, a lessee. However, in the event control of mining activities is in dispute, the owner may be required to obtain a permit also. Otherwise the permit will be required of the person in control of the mining activities. The fact that two or more persons may be in control of part of the facility is irrelevant so long as only one controls mining activities; e.g., utility easements or farm leases have no effect on "control" for the purpose of determining the extent of the facility.

During the hearings the Agency sought to amend the proposed definition of "operator" to specifically include co-op preparation plants (R. 12, 29; Agency Amendment). The argument had been made that, since there was no one operator, Chapter 4 was not applicable to the co-op. However, "operator" has been redefined to include any person who carries out mining activities. The question centers not on the legal character of the person, but on whether he carries out mining activities. Even if a co-op falls under no other characterization in the definition of "person" in the Act, then it will probably be a partnership within the meaning of Chapter 106½, §6,

Illinois Revised Statutes. If the facility is physically separated, then multiple permits may be required. However, if one site is operated by several persons, the Agency may require them to enter into a formal agreement fixing control prior to permit issuance.

The Proposed Order contained a reference to Rule 200. This has been deleted and the definition of "person" removed from the list contained in Rule 200. "Person" is now defined in Rule 201. If the definition of "person" is not clearly set forth in Rule 201, the definition of "facility" could be construed as a limitation on the right of partnerships to engage in mining activities (Agency Comment 5).

Mine Area or Mined Area: Although the definition is largely unchanged, it has been altered to exclude the unmined surface land directly above underground mine workings that is not otherwise disturbed by mining activities (R. 91).

Mine Discharge: Part VI regulates mine discharges. The production of a mine discharge is a mining activity. Other point source discharges, sanitary sewers and discharges from facilities and activities which are not directly related to mining activities are regulated under Chapter 3. If a facility with an NPDES permit has both mine discharges and other discharges, they will be regulated by Chapter 4 or Chapter 3 respectively, although there will be one permit only (Rule 302) (R. 15, 51).

A mine discharge is a point source discharge from a mine related facility. The listing of sources of mine discharges in the first sentence has been eliminated. The omitted facilities are now included in the definition of "mine related facility."

Reference to non-point source discharges has been removed from the definition of "mine discharge." A definition of "non-point source mine discharge" has been added to the proposal. The Coal Association objected to the inclusion of non-point source discharges in the definition of "mine discharge" (ICA Comments 1, 4).

The Coal Association also pointed out that 30 CFR 816.42 and 817.42 require that surface drainage be collected into sedimentation ponds prior to discharge. Thus non-point sources are essentially converted to point source discharges. Therefore, the definition of "mine discharge" has been modified to specifically provide that the term "mine discharge" include surface runoff discharged from a sedimentation pond but exclude non-point source mine discharges other than those discharged from a sedimentation pond. Rule 608 has been added to the proposal. This essentially repeats the federal requirements on sedimentation ponds for surface drainage.

The Coal Association requested merely deletion of references to non-point source discharges. The Board instead has defined "non-point source discharge." In the event that the Board in the future were to propose regulations on non-point source discharges in Chapter 3, a situation would otherwise be created whereby part of the mining activity would fall under Chapter 4 and part under Chapter 3.

The Agency suggested some changes in wording in the final two sentences of the proposed definition (Agency Comment 7). These have been substantially adopted.

The Coal Association has also requested that the Board insert the word "man-made" in front of "point source discharge" in the first sentence of the definition. This is rejected. Many discharges from mines are natural in the sense that they consist of natural groundwater pumped from the mine or surface runoff contaminated with sulfuric acid produced from the action of air and water on natural materials disturbed by mining. The Board intends to regulate these discharges. The suggested change would invite the argument that these are not "man-made" discharges.

Mine Refuse: Definition unchanged (R. 48). The Coal Association requested deletion of mill tailings and slurry from the definition of "mine refuse" (ICA Comment 5). The contention is that this is a special category of refuse which is not covered by Rule 506. Although that rule contains special provisions for acid-producing solid mine refuse, it is intended also to apply to other categories of mine refuse. These are to be covered in the refuse disposal plan. Approval of the plan with respect to mill tailings and slurry is dependent on the general rules of permit issuance in Rules 501 and 502.

Mine Refuse Area: Definition unchanged from the old Chapter 4 except that "and" has been changed to "or" to clearly state the intent of the definition.

Mine Refuse Pile: Definition unchanged.

Mine Related Facility: A portion of a facility which is related to mining activities. This is a new definition taken from the Agency's amended proposal, the rule on construction authorization (Rule 304). That amendment required a construction permit for "any facilities related to mining activities." This has been shortened to "mine related facility" and used throughout. There may be several mine related facilities within a facility. There may also be other facilities, including facilities regulated under Chapter 3.

Mining: The Agency proposal contained an exception from the definition of mining for "dredging operations contained solely in natural bodies of water." In a letter to the Board dated September 26, 1977 the Illinois Department of Conservation objected to this exemption. At the hearings the Agency was unable to explain why this was excluded from the definition of mining (R. 97). This exception has therefore been deleted from the proposal. These operations may, however, be exempt from the state permit requirement under Rule 403.

The wording of the definition has been somewhat changed to include the surface and underground extraction or processing of natural deposits of coal, clay, fluorspar, gravel, lead bearing ores, sand, stone, peat,

zinc bearing ores or other minerals. It was pointed out at the hearing that lead and zinc do not occur in their native state in Illinois and that peat is mined in Illinois (R. 93).

Mining Activities: All activities on a facility which are directly in furtherance of mining. This definition, together with the permit requirement of Rule 401, defines the scope of Chapter 4 (R. 11, 70). A listing of specific mining activities mentioned in the proposal has been listed with the definition.

The Coal Association requested that the following language be added to this definition: "The term excludes facilities which are non-contiguous to mining activities" (ICA Comment 6). This language is rejected.

The purpose of the ICA suggestion was to make clear that areas such as maintenance buildings, engineering buildings and general office buildings which are physically removed from the mine area would not require a permit. This is not the intent of the proposal. If these buildings are located on a separate facility, i.e., if they are on land which is non-contiguous to the facility, then they will require permits only if mining activities are carried out there. However, if they are on the same facility, they will be covered by the permit, regardless of whether or not they are mining activities or mine related facilities. If the office buildings, etc., were excluded from the permit for the facility, then, in the event the office building had a sanitary waste discharge, it would have to have a separate Chapter 3 permit. This result is avoided if they are included within the permitted facility.

The Coal Operators have also suggested that subpart (a) of the definition be changed from "preparation to carry out mining activities" to "preparation of land for mining activities." This change has been adopted. Preparation to carry out mining activities could be construed to include completion of the permit application. Rule 401 and the definitions of "construction authorization" and "construction permit" have been changed accordingly.

Subpart (a) of the definition will cover grading and earth moving while subpart (b) will cover the actual construction of buildings and such. Subpart (g) of the definition provides that opening a mine is a mining activity which requires a permit. Any construction activity related to preparation for mining on the facility amounts to opening a mine.

Non-point Source Mine Discharge: Runoff from the affected land other than surface runoff which is discharged from a sedimentation pond. This definition has been added pursuant to comments of the Coal Association (ICA Comments 1, 4). Rule 608 has been added to require collection of non-point source discharges into sedimentation ponds. Seepage from a mine or mine refuse area is a mine discharge even if it meets the definition of non-point source mine discharge.

Opening a Mine: Any construction activity related to the preparation for mining on a facility. This is a new definition. Once a mine has been opened, it cannot be abandoned without execution of the abandonment plan as provided by Rule 510 (R. 11). Outstanding permits for mines which have never been opened expire on the effective date of this Chapter as provided by Rule 703. Permits issued in the future will include a definite expiration date as provided by Rules 301 and 409.

Opening a mine is a mining activity and hence a state permit, construction or operating, is required under Rule 401. A construction permit is required by that section to "Prepare land for mining activities or construct a mine related facility which could generate refuse, result in a discharge or have the potential to cause water pollution . . . " Ordinarily a permit will be obtained before the mine is opened. Whether a permit is required for construction activity preliminary to that specified in Rule 401 depends on intent. Turning a spadeful of earth or driving a nail with the intent of ultimately mining is opening a mine, which is a mining activity requiring a state permit. However, the question of intent vanishes once it can be said that a mine related facility has been constructed which could generate refuse, etc. In this case a construction permit is required even if the operator has no intention of mining.

Operating Permit: A state permit required of a person carrying out mining activities. An operating permit is not required for a person holding an NPDES permit as provided by Rule 402. Other exemptions from state permit requirements are provided by Rule 403.

Construction permits and operating permits are referred to jointly and severally as state permits. Since mining activities include construction, an operating permit may authorize construction. There is no legal significance to the designation "operating permit" or "construction permit." The language of the permit controls what is permitted.

Operator: A person who carries out mining activities. An operator must have a state permit under Rule 401 unless one of the exemptions of Rules 402 and 403 applies (R. 12).

Permittee: A person who holds a state or NPDES permit. This is a new term taken from the Reclamation Act. A person who holds a combined Chapter 3 and Chapter 4 NPDES permit will be a "permittee" since he will hold an NPDES permit issued under Chapter 4.

Person: This definition is taken directly from the definition in the Act. In the proposal it was defined by reference in Rule 200. It has been added to Rule 201 on suggestion of the Agency to clarify the definition of facility (Agency Comments 3, 4).

Processing or Mineral Preparation Plant: This definition has been added to the proposal at the suggestion of the Agency (Agency Comment 9).

Slurry: This definition has been somewhat changed and expanded to include mill tailings.

Spoil: This definition is unchanged, but has been clarified to include "mineral seams or other deposits." This is in recognition of the fact that some minerals do not occur in seams, but occur in lenses or other formations (R. 99).

State Permit: A construction permit or operating permit. NPDES permits are not state permits.

Surface Drainage Control: This definition has been added to the original proposal. An Agency amendment expanded the scope of Rule 505 beyond diversion of surface water around the active mining area to include diversion around mine refuse areas and diversion, redirection or impoundment of streams. At this point it became simpler to define a term for the use in the operative rule.

Surface drainage control also includes flow augmentation and controlled release of effluents. These are suggested methods of avoiding violation of the TDS water quality standards which involve stream diversion and/or impoundment. They will require a permit under Rule 401.

Surface Mining: Definition unchanged. Consideration has been given to bringing this definition into line with the similar definition in the Reclamation Act. However, that act refers only to coal mining, while Chapter 4 covers mining activities in general. It is the Board's intention to include "surface mining operations" as defined by Section 1.03(24) of the Reclamation Act within the definition of "surface mining" used in Chapter 4.

Underground Mining: The definition has been changed slightly for clarification (R. 12).

Underground Water Resources: This definition has been deleted on the suggestion of the Coal Association (ICA Comment 7). This term is essentially defined by reference in Rule 200 to underground water. The definition of "aquifer" has been substituted instead.

Use of Acid-producing Mine Refuse: Use of acid-producing mine refuse has been included in the definition of "mining activity" and the permit requirement, by implication, moved to Rule 401: State Permits. Under the old Chapter 4, use of acid-producing mine refuse was illegal (0-404). Under the proposal, the Agency may issue permits (R. 112). Rule 504(b)(17) requires a plan if an applicant is to use acid-producing mine refuse. Rule 508 requires permit conditions if it is to be used.

## PART III: NPDES PERMITS

### 300 Preamble

Part III applies to mining activities carried out by any person who holds an NPDES permit, regardless of whether he is required to have an NPDES permit because of his mining activities. This part does not seek to alter the law of who must obtain an NPDES permit. However, if for any reason a person must obtain an NPDES permit, the Chapter 4 requirements will be written into that permit (R. 12, 19, 69, 100, 103, 167; E. 43, 82, 84). Take, for example, a large mining operation which would not be subject to the NPDES permit requirements except for a small sanitary waste facility. If the sanitary waste facility must have an NPDES permit, then the entire facility is governed by Part III and any Chapter 4 requirements will be written into the NPDES permit. The facility will be exempt from the requirement of obtaining a state permit under Rule 402.

Part III also applies to mining activiites carried out by persons required to obtain an NPDES permit. It will be a violation of Part III to carry out mining activities without an NPDES permit if those activities are required to have such a permit. In this case there will also be a violation of Part IV since the exemption from obtaining a state permit will not be applicable if there is no NPDES permit.

### 301 Incorporation of NPDES Water Rules

The rules contained in subpart A of Part IX of Chapter 3 apply to Chapter 4 NPDES permits. This incorporates into Chapter 4 Rules 901-916 of Chapter 3 except for Rule 910(n), Authorization to Construct. The permit requirement of Rule 901 is identical to the permit requirement of Rule 302. The application requirement of Rule 902 has been amended to include specific references to Rules 303, 304 and 504 (R79-13).

Rule 301 generally incorporates procedural rules applicable to NPDES permit applications except to the extent that these are contradicted by the more particular provisions applicable to mines. This is to be contrasted to Rule 600 which concerns the applicability of the effluent and water quality standards of Parts II, III and IV of Chapter 3. The standards contained in

Chapter 3 are generally inapplicable to mine discharges unless otherwise provided.

Following the second notice period Rule 301 was modified in response to comments by the Joint Committee staff. Whereas the earlier versions specified incorporation "except to the extent contradicted," the adopted version provides an absolute rule of incorporation except for Rule 910(n). In the event of latent conflict, Rule 301 now provides for a bias in favor or Chapter 4.

302 NPDES Permit Required of Certain Dischargers

Rule 302 establishes the requirement of an NPDES permit for a Chapter 4 discharger. This merely repeats Rule 901 of Chapter 3 and the requirements of Section 301(a) of the FWPCA as applicable to mining activities. It is not the Board's intention to change the NPDES requirements in this Chapter 4. Whether the permit is required will be judged solely by Chapter 3, the FWPCA and Section 12(f) of the Act.

The Coal Association requested that the NPDES permit requirement for discharge into a well be deleted from Rule 302 (ICA Comment 8). United States District Court cases in Texas and Colorado were cited for the proposition that Congress did not intend to require NPDES permits for discharges into wells. The Agency states in its responsive comments that U.S. vs. Earth Science, Inc., one of the cases the Coal Association relies on, was overruled last year by the Tenth Circuit Court of Appeals [13 ERC 1417; 599 F 2d 368 (1979)].

Section 12(f) of the Act requires NPDES permits for discharges into a well. Even if Congress did not intend to include discharges into a well under the permit requirement, the General Assembly did so expressly.

The Agency requested insertion of "as amended" after "FWPCA" (Agency Comment 10). This has been done in Rule 200. "FWPCA" means "FWPCA as amended."

303 Application

Rule 303 requires a person to apply for an NPDES permit if he is to engage in a mining activity requiring such a permit. Rule 902(c) of Chapter 3 has been amended to conform with Rules 303, 304 and 504 (R79-13).

Rule 303(b) makes it clear that a person who has applied for an NPDES permit need not apply for a state permit. If a person is in doubt as to whether an NPDES or state permit is required, he should first apply for an NPDES permit. If the Agency determines that a state permit is required, it will notify the person and request him to apply for a state permit. There will be no penalty for application for the wrong permit.

Rule 303(b) will also be applicable in the event the Agency loses NPDES authority and notifies the permit holders that state permits are required as provided by Rule 402.

The Coal Association also requested that Rule 303 be amended to provide for notification that a state permit is required "due to the provisions of Rule 300 of this chapter." The Board rejects this modification. Rule 303(b) is intended to cover a situation in which the Agency determines that a person who has applied for an NPDES permit is not required to have such a permit, as well as the situation under Rule 300 if the Agency loses NPDES authority.

The Coal Association has construed Rule 303(b) as creating a right in the Agency to modify the permit requirement. This is not the intent of Rule 303(b). The negative language creates an immunity for the applicant rather than a right in the Agency. Whether the state permit is actually required depends on other rules. However, the person who has applied for an NPDES permit need not make application until the Agency notifies him that a state permit is required.

The Coal Association requested addition of a sentence to the effect that permit application forms of the Department of Mines and Minerals are acceptable. The Board will respond to this comment in connection with Rule 504 (ICA Comment 9).

304 Construction Authorization

Rule 304(a) covers the situation in which a person:

1. Seeks to open a mine for which an NPDES permit will or may be required; or

2. Seeks to modify a facility in such a manner that an NPDES permit will be required after the modification but was not before, either because it operated under a state permit or was exempt.

Rule 304(b) provides for modification of a mining activity or mine related facility for which the operator already holds an NPDES permit. Modification can be undertaken only pursuant to a construction authorization which will take the form of a condition of a new or supplemental NPDES permit (R. 13, 68).

Rule 304(b) covers the usual situation in which a person operating under an NPDES permit seeks to modify. This will be handled exclusively with a construction authorization. However, flexibility is allowed in the less common situation involving new construction. These situations could result in confusion. They may be handled either by construction authorization or state construction permit as provided by Rule 401. Rule 304(c) provides that application must be made at least 180 days in advance. Rule 304(d) provides that a person seeking construction authorization will proceed just as though he were applying for an NPDES permit. The Agency may provide construction criteria in its guidance document promulgated pursuant to Rule 501.

In response to the comment of the Coal Association language has been added to Rule 304(b) to the effect that construction authorization is not required for modification which would not cause a violation of conditions of the existing permit (ICA Comment 10). The applicant can specifically request leeway in terms of future modifications in the permit application. The Agency can be more or less specific about the details of the facility in issuing the permit. The degree of

specificity in the permit will determine the requirement of a construction authorization for modification.

Rule 304(b) has been modified to differentiate between modification of a mining activity or a mine related facility and construction of a new mine related facility on the facility where the permit is already held. A construction authorization will always be required for construction of a new mine related facility.

The proviso on modification is not applicable to construction of new mine related facilities. New facilities must be specifically provided for in the permit. However, new construction does not necessarily require a supplemental permit application. The language of Rule 304(b) allows an applicant to request authorization for future construction in connection with the original or renewal permit application.

In the Proposed Opinion it was stated that modification of a facility holding a Chapter 3 NPDES permit so that part of it fell under Chapter 4 would be governed by Rule 304(a). Such modification would fit better in Rule 304(b).

## PART IV: STATE PERMITS

### 400 Preamble [0-203(a)]

Part IV governs all mining activity and hence anything regulated under Chapter 4. However, the exemptions for holders of NPDES permits and for domestic retail sales yards, consumer stockpiles and some small mines will, as things presently stand, relegate Part IV to a minor role (R. 69). However, in the event the Agency loses NPDES authority, this will become the principal part of Chapter IV.

In the earlier versions Rule 400 contained a sentence referring to the exemptions provided by Rules 402 and 403. This has been deleted in response to comments by the Joint Committee. As adopted, Rule 400 states only the scope of Chapter 4 and is silent on exemptions.

401 Construction and Operating Permits: State Permits (0-201)

Rule 401 sets forth the requirements of state permits. There are two types of state permits--construction permits and operating permits. These are referred to individually or collectively as state permits (R. 12). Rule 401(c) provides for a joint construction and operating permit to be issued whenever it is not worth the administrative trouble to issue separate permits.

An operating permit is required for a person to carry out mining activities. The definition of mining activities includes construction activities. Therefore an operating permit is sufficient for construction. However, Rule 401(a) provides for a separate construction permit. There has been difficulty with the old Chapter 4 in that it is not clear that construction is a mining activity. In some cases, coal has actually been removed from the ground and sold. Persons have claimed that this was construction and not governed under Chapter 4 so as to require an operating permit. A construction permit is provided in order to make this clear (R. 33).

The separate construction permit will also allow the Agency to review and inspect a facility prior to issuance of the operating permit. In some instances this will provide more flexibility in the permitting process.

It makes no legal difference whether a state permit is denominated a construction permit or an operating permit. The language of the permit will determine what is permitted regardless of the name.

402 Exemption from State Permit: NPDES Holder

Rule 402 provides that an operator who holds an NPDES permit for a facility need not have a state permit for mining activities on the facility. Whatever mining activities an NPDES permit holder engages in will be permitted under Part III (R. 12, 19, 69, 100, 167; E. 84). The NPDES exemption will terminate when and if the Agency ceases to administer the NPDES permit program.

Rule 402(b) also provides for notice to the NPDES permit holders by the Agency in the event the Agency ceases to administer the program. This is the only way of guaranteeing that the permit holders will learn that a state permit is required. The notification procedure also allows the Agency to determine whether or not it has NPDES authority. The Agency need not give notice until it is convinced it has actually lost the authority with sufficient certainty to justify the inconvenience of processing a large number of state applications. The wording has also been changed to give the Agency authority to set dates upon which applications must be received for state permits. If the Agency deems it necessary, it may spread these dates out over a period for administrative convenience.

The EcIS concluded that elimination of the present system of requiring duplicate state and NPDES permits would result in an annual savings to the Agency of $3000 to $5000 and $200 tc $400 to the mines (E. 43).

403 Exemption from State Permit: Coal Piles and Small Mines

Rule 403 provides a further exemption from the state permit requirement for some small mines, domestic retail sales yards and consumer stockpiles located at the consuming facility. The revision has increased the scope of Chapter IV by including under the definition of mining activities coal transfer facilities and coal storage facilities. These definitions would include domestic retail sales yards and consumer stockpiles. They are also able to take advantage of the more lenient discharge standards found in Part VI. However, it would unduly burden these facilities to require them to obtain permits (R. 13, 20, 28, 104). Although consumer stockpiles could include very large facilities, it is expected that most of these will already have NPDES permits. This provision does not create an exemption from the NPDES permit requirement (R. 64; E. 84). However, Chapter 4 requirements concerning, for example, a consumer stockpile will be written into the NPDES permit. The Agency retains the right to require a state permit in the event a non-NPDES facility threatens to cause water pollution or violation of the regulations.

Rule 403(a)(3) provides an exemption for any mine affecting less than ten acres of land per year which is not a coal, fluorspar, lead or zinc mine. It is contemplated that among other things, this will provide an exemption for small sand and gravel operations. Rule 403(a)(3) has been modified to provide exemption from the state permit requirement for "any facility where mining takes place which affects less than ten acres of land per year and which does not include a coal, fluorspar, lead or zinc mine related facility." The language of the Proposed Order would have created an inadvertent exemption for practically all mine related facilities. The Agency comment has been substantially adopted with some changes (Agency Comment 11).

Rule 403(b) contains a requirement of notification by a small mine. This will afford the Agency an opportunity to investigate and will allow it to maintain an accurate list of mining operations in the state. Since the exemption will date only from the time the Agency is notified of the claim of exemption, this provision will be of limited utility as a defense to operation without a permit. For the exemption to apply, operators who have a mine with a doubtful exemption will have to notify the Agency and submit themselves to an inspection in advance of an enforcement proceeding.

The second sentence of Rule 403(b) has been modified to read as follows: "The exemption shall be of no effect prior to the time such notice is mailed." The proposal provided that the exemption "date from" such time. This has been changed to clarify the Board's intent. Language similar to that suggested by the Agency has been adopted (Agency Comment 12).

Rule 403(c) sets forth the requirement that the Agency notify the operator that a permit is required and that the exemption is found inapplicable. In the event the operator promptly applies for a permit, he can continue operating without being subject to an enforcement action for operating without a permit.

Some additional changes have been made to clarify Rule 403(c) in light of the change in 403(b). The notification provisions of 403(b) do not affect whether or not the facility is in fact exempt. However, an

exempt facility is required to have a permit prior to notification of the claim of exemption. In the event the Agency disputes the claim of exemption, it must follow the notification procedures of Rule 403(c). If the claim of exemption is, in fact, invalid, then the forty-five day grace period provided by Rule 403(c) is not applicable. The forty-five day period is applicable only in a situation where the person has a valid exemption but the Agency makes the determination under Rule 403(a) that the permit is nevertheless required.

There is no provision for appeal of an Agency determination that an exempt facility must have a permit or that a facility is not exempt. In such case the operator must complete a permit application. The Agency action on the permit application will be appealable and the operator may raise issues under Rule 403 in the context of that permit appeal.

404 Applications: Deadline to Apply

A person who is required to have a state permit must file the application at least ninety days before the date on which the permit is required. This is similar to rules found in Chapter 3 (Rules 902 and 960). Under the Administrative Procedure Act, if a timely permit application is made, the old permit continues in effect after expiration until the new permit is issued [Ill. Rev. Stat. ch 127, §1016 (1977)]. An applicant will not be able to avail himself of this statute if the application is not filed ninety days prior to expiration.

405 Permit Applications: Signatures and Authorizations Required

This rule is virtually identical with Rule 902(h) of Chapter 3 which is incorporated by reference in Rule 301.

406 Permit Applications: Registered or Certified Mail or Hand Delivery Required

This rule is similar to Rule 959 of Chapter 3.

407 Supplemental State Permits [0-203(b)]

Rule 407 sets forth the rule for when supplemental state permits are required. Rule 407(a) specifies that an operator may apply for a new or supplemental permit whenever circumstances arise such that there could be a violation of the previous permit.

Under the old Chapter 4 an operator could mine for an indefinite period at a given location once a permit was issued. The only limitation was a new permit when a new drainage area was entered or when the drainage treatment or pollution control plans were modified in design or operation. The new Chapter 4 is different in that the permit can have a duration of not more than five years. It is possible to project the progress of the mining with greater specificity for a limited period of time. Therefore, Rule 513 has been added to the Agency's proposal. This requires that a state or NPDES permit specify a permit area, the maximum extent of the affected land during the permit term (Agency Comment 31).

Under Rule 501 the Agency is authorized to impose special conditions, which could include details of the design and operation of treatment or pollution control plans. The Agency can be more or less specific about these details in the permit. The degree of specificity will determine the latitude within which the permittee can operate without making a supplemental application.

408 Violation of Conditions or Standards in a Permit (0-206)

Rule 408 requires operators to comply with conditions of their state permit. Rule 408(b) provides for revocation of permits. Four circumstances warranting permit revocation are listed. These are taken in part from Rule 912(b) of Chapter 3 and in part by analogy with case law developed in connection with solid waste permits (EPA v. Harold Broverman, et al., 28 PCB 123, November 10, 1977).

In connection with an enforcement action, the Board may revoke a state permit if, because of existing geological conditions, an operator cannot carry out mining activities so as not to cause a violation of the

law; or, the complainant demonstrates a history of chronic disregard by the permittee of the Act or Chapter 4 or, the complainant demonstrates that the permit was obtained by misrepresentation or failure to disclose fully all relevant facts; or, the complainant demonstrates affirmatively that the general standard for permit issuance contained in Rule 502 would not be met if a new application for permit were made. This last circumstance is intended to be the converse for the general standard for permit issuance.

Unnecessary language has been deleted from Rule 408(b) (Agency Comment 13). Rule 408(b) has been modified in response to comments of the Coal Association. A permit may be revoked because of "a history of chronic disregard by the permittee for the Act or Board Regulations." The Proposed Order provided for revocation for chronic disregard "of mining regulations." This could be interpreted to include federal mining regulations and Department of Mines and Minerals Regulations (ICA Comment 11).

409 State Permit Term [0-203(a)]

Rule 409 provides that state permits shall be of a duration not to exceed five years as specified in the permit. The Agency may specify any expiration date up to five years from the effective date of a state permit (R. 267).

410 Permit No Defense to Certain Violations (0-207)

Rule 410 provides that possession of a state permit is not a defense except to a complaint alleging mining activity without a permit. This is similar to Rule 966 in Chapter 3 and Rule 207 of the old Chapter 4.

411 Permit Review (0-703)

This follows the general policy of the other Chapters that grant of a permit with objectionable conditions is a permit denial under Section 40 of the Act allowing the applicant to appeal. This provision is substantially unchanged from the old Chapter 4, although the language has been altered. Language has been inserted providing that Agency notification of modification or revocation of an existing permit is also a permit denial. Rule 503 covers permit modification when

new regulations are adopted. The added language will allow a permit appeal in the event of Agency notification of modification in such a case. In some cases Rule 503 notification of modification could amount to revocation of the permit. Language has been added to make certain that there is a right to appeal in this case also.

## PART V: STATE AND NPDES PERMITS

### 500 Preamble

Part V governs mining activities and issuance of permits to operators regardless of whether they hold a state or NPDES permit.

### 501 Special Conditions; Agency Guidance Document [0-205(c)]

Rule 501(a) allows the Agency to impose special conditions on a permit which are consistent with the rules and necessary to accomplish the purposes of the Act. This restates the Agency's authority under Section 39 of the Act to translate the body of water pollution law into specific requirements which a discharger must meet. Commas have been changed from those in the Proposed Order to follow the language of the Act.

Section 39 of the Act sets forth the Agency's authority to impose special conditions in permits. The wording is slightly different depending on whether the permit is state or NPDES. Section 39(a) which applies to permits required by Board regulations, reads as follows: "In granting permits the Agency may impose such conditions as may be necessary to accomplish the purposes of this Act, and as are not inconsistent with the regulations promulgated by the Board hereunder." However, Section 39(b) of the Act sets forth that: "All NPDES permits shall contain those terms and conditions, including but not limited to schedules of compliance, which may be required to accomplish the purposes and provisions of this Act." The Act does not require NPDES permit conditions to be not inconsistent with Board regulations. This does not necessarily imply that the Agency must ignore Board rules in writing NPDES permit conditions. Section 39(a) provides that

the Agency "may impose" conditions necessary to accomplish the Act's purpose which are not inconsistent with Board rules. However, Section 39(b) provides that, in the case of NPDES permits, the Agency "shall impose" conditions required to accomplish the Act's purposes. The Act is silent about what additional conditions the Agency may impose in NPDES permits. (Peabody Coal Company v. EPA, PCB 78-269, September 20, 1979; May 1, 1980)

Rule 501(b) allows the Agency to adopt permitting procedures. These should include rules of procedure and application forms. They shall be included in the Agency guidance document provided for below.

Rule 501(c) allows the Agency to adopt engineering criteria which will be published with the Agency guidance document. These should represent minimal designs and practices which the Agency will accept for permit issuance.

The Agency necessarily has the power to develop guidelines for permit issuance to be used within the Agency. Rules 501(c) and (d) contemplate publication of these guidelines as criteria. The criteria will represent a formal statement of what the Agency will not challenge in a permit application. The criteria are not rules and will not bind any party other than the Agency.

Although these are not rules in the usual sense of the word, they are rules within the meaning of the Administrative Procedure Act, Ill. Rev. Stat. ch 127, §1003.09. The criteria will amount to an Agency statement that interprets law or policy. They will be of general applicability and not informal advisory rulings issued to individual petitioners as contemplated by Section 1009 of ch 127. Publication of the rules in conformity with the Administrative Procedure Act is therefore required (E. 82; Third Amended Proposal).

Rule 501(c) has been modified to provide for criteria for the design, operation, maintenance and abandonment of "mine related facilities and other wastewater sources." The listing of various mine related facilities has been omitted and the term defined by Rule 201 has been used instead. The Agency

may promulgate criteria with respect to other wastewater sources which are not mine related facilities (Agency Comment 14).

The Coal Association requested a similar modification. However, it wanted the criteria restricted to mine drainage treatment facilities and other mine wastewater related facilities (ICA Comment 12). This aspect of the Coal Association comment is rejected. The Agency's criteria may range beyond wastewater treatment facilities. The limitation is that the criteria must relate to the Agency's power to impose permit conditions in Rule 501(a). If the Agency issues criteria which are unrelated to its power to impose permit conditions they will necessarily have no effect.

The Coal Association requested that Rule 501(e) be modified to provide that criteria represent a formal Agency interpretation of what is consistent with the Act and Chapter 4 and necessary to accomplish the purposes of the Act, "and other state and federal laws" (ICA Comment 13). This is rejected. The Agency's ability to consider other laws in permit issuance is limited. In doing so the Agency would usurp authority granted other agencies and would engage in an activity not authorized by the Act. Furthermore, in the event of a direct conflict with other laws this would interfere with the Agency's duty to enforce the Act and Board regulations. Where there is a direct conflict, the Agency must enforce the Act and Board Rules. In this case relief is available only from the Board by way of variance or rule change.

In response to the Coal Association comments, paragraph 501(f) has been added to the proposal. In adopting new or revised criteria the Agency shall consider other applicable state and federal statutes and regulations and shall avoid issuing criteria which conflict with such. Where the Agency has a choice of several possible design criteria which would be consistent with the Act and Rules, it should not adopt the one which is inconsistent with other law.

502 Standard for Permit Issuance or Certification (0-202)

Rule 502(a) sets forth the standard for permit issuance. This is the usual standard for permit issuance: that the operator present evidence to demonstrate that there will not be a violation of the Act or rules (Section 39 of the Act).

Rule 502(b) further sets forth the function of the Agency guidance document. Where the guidance document contains criteria with respect to some part or condition of the permit, then the applicant may demonstrate conformity with the criteria of the guidance document in lieu of demonstrating that there will be no violation of the Act or Rules. However, since the guidance document does not constitute rulemaking, nonconformity with the criteria will not be grounds for permit denial, provided the general standard for issuance is met. For an Agency interpretation of the comparable Rule 967 of Chapter 3, see 3 Ill. Reg. 36, p. 226 (September 7, 1979).

As an example of the function of the guidance document, consider that the Agency might issue criteria to the effect that refuse piles shall have a slope no greater than 10%. The permit applicant will be free to offer evidence that a slope of 12% under the circumstances will not cause a violation of the Act or Chapter 4. However, the Agency will not be allowed to argue that under the circumstances a maximum slope of 8% is required. The function of the guidance document is to provide guidance by permitting the Agency to set forth minimal standards. An applicant can assure himself of prompt permit issuance by conforming to the criteria of the guidance document.

Unnecessary language has been stricken from Rule 502(b) in response to Agency comments (Agency comment 15). The absence of criteria with regard to some part of a permit creates no inference whatsoever that the Agency is without authority to include that part.

503 Permit Modifications When New Regulations Are Adopted

Rule 503 provides that the Agency may issue a supplemental permit setting forth affected terms and conditions in the event the Board adopts new regulations (R. 116). Rule 503 as adopted conforms with the similar provision contained in Rule 968 of Chapter 3.

504 Permit Applications (0-204)

Rule 504 sets forth what information must be provided in a permit application. This is further specified in the sections which follow (E. 26).

Rule 504(b)(3) has been slightly modified in response to an Agency suggestion. The newly defined term "aquifers" has been substituted into Rule 504(b)(4). Rule 504(b)(15) has also been modified in response to comments. The listing of types of mine related facilities has been replaced with the term which is defined by Rule 201 (Agency Comments 16, 17). The Coal Association requested deletion of references to non-point sources. The rule has been modified to provide that the application reveal the location of all mine discharge points and non-point source mine discharges (ICA Comment 14). The requirement that non-point sources be identified in the application does not in any way increase the Agency's power to regulate non-point sources. The Coal Association requested deletion of Rule 504(b)(16). This is rejected as discussed in connection with Rule 509 (ICA Comment 15). A small change in language has been made in Rule 504(c) (Agency Comment 18).

Rule 504(d) has been added in response to Coal Association comments to Rule 303(a) [ICA Comment 9(a)]. The Board agrees with the Coal Association that it would be burdensome to require preparation of two substantially identical application forms. However, an absolute rule providing for the use of Mines and Minerals forms would give Mines and Minerals a veto power over the Agency permitting activities if it should refuse to make the forms available to the Agency. Furthermore, if it refused to include information necessary for the issuance of NPDES permits, it would jeopardize the Agency's NPDES permitting authority, contrary to Section 11(a)(5) of the Act. Rule 504(d) makes it clear that Rule 504 is not intended to limit the Agency's authority to enter into a joint application agreement.

505 Surface Drainage Control [0-301(a), 301(b)]

Rule 505 provides for control of surface drainage by permit. Some specific requirements of old Rule 301 have been omitted. These include certain mandatory diversion and impoundment provisions. In dropping these requirements the Board does not intend to disavow them. They are mining practices which carry a risk of water pollution. The Agency may provide for these matters in the Agency guidance document and may write specific requirements into permits to prevent water pollution.

Rule 201 defines surface drainage control as control of surface water on the affected land by a person who is engaged in mining activities. In permitting surface drainage control, the Agency shall consider not only whether compliance with the requirements of Rule 505(c) has been shown, but also whether the plan will avoid other violations of the Act and Chapter 4.

The definition of surface drainage control has been expanded to include flow augmentation and controlled release of effluents as methods of avoiding violation of the TDS and related water quality standards. These practices may previously have been considered illegal. They will require a permit under Rule 401 since they will involve stream diversion or impoundment. There is no special rule governing permit issuance in this case other than the general standard of Rule 502.

The Agency pointed out that as proposed Rules 505(b) and (d) were in conflict to the extent that they required stream diversion around the active mining area and also prohibited stream diversion (Agency Comment 19). The Coal Association requested that Rule 505(b) be modified to provide for surface drainage diversion around the active mining area "where practicable" (ICA Comment 16). It also requested deletion of 505(d) (ICA Comment 17). The Coal Association stated that in certain cases it would be more practical from an economic, environmental and technological point of view to allow small areas to drain into the affected land. Because diversion, redirection or impoundment of streams is highly regulated already, the Coal Association requested the deletion of 505(d).

Rule 505(b) of the Proposed Order has been modified to provide that surface drainage control plans will be included as permit conditions subject to the provisions of Rules 501 and 502. Rule 504(b)(7) requires that the permit application contain a surface drainage control plan. This amounts to a request to incorporate a specific permit condition. If the surface drainage control plan meets the standard of Rule 502(a) then it should be incorporated into the permit by reference. If the plan does not meet this standard, the Agency has two alternatives: It can deny the permit or it can issue the permit subject to the requested surface drainage control plan and additional conditions which will ensure the standard for permit issuance is met. These additional conditions are subject to Rule 501. However, the applicant's plan itself is not subject to the requirement of Rule 501 that it be necessary to accomplish the purposes of the Act. The permit applicant should take care to avoid requesting an unnecessary permit condition: Once the applicant's plan has been incorporated into the permit, it must be followed, even if certain aspects of it could not have been imposed by the Agency.

In response to the Coal Association comment, Rule 505(d) has been modified to provide that diversion, redirection or impoundment of streams "shall not be undertaken where the Agency demonstrates that there is an economically reasonable alternative." Since stream diversion is included in the definition of "surface drainage control" (Rule 201) a permit will be required. This permit will be subject to the general standards for permit issuance of Rule 502. A permit applicant will be required to demonstrate that no violation of the Act or Rules will occur before undertaking stream diversion. Even if he is successful in this, a permit can be denied if the Agency demonstrates an economically reasonable alternative. An economically reasonable alternative is one which accomplishes the same result at a similar cost with less environmental damage.

506 Refuse Disposal (0-401, 402)

Rule 506(a) requires that a state or NPDES permit contain a refuse disposal plan. An applicant must submit a plan under Rule 504(b)(12). The plan will be

made a permit condition if it satisfies the standard for permit issuance contained in Rule 502. The applicant must show that there will be no violation of the Act or rules, including Rules 504(c), (d), (e) and (h) which are substantive rules governing mining. The Agency may promulgate mine refuse criteria under Rule 501.

Rule 506(b) has been modified to track the language of Rule 505(b). References to the Agency Guidance Document have been removed. The refuse disposal area is a mine related facility under the definitions in Rule 201. The Agency may promulgate criteria for mine related facilities under Rule 501. Rule 506(c) in the Proposed Order provided that "erosion, runoff, flooding, overflow or leachate from the affected land shall not violate the standards contained in Part VI of this Chapter." The Coal Association requested that this be limited to the "refuse disposal area" (ICA Comment 18). This has been adopted.

As proposed Rule 506(c) conflicted with the definition of mine discharge and with the effluent standards of Part VI. In the Final Order Rule 506(c) reads as follows: "Seepage from a refuse disposal area is a mine discharge as defined by Rule 201 which is subject to the standards contained in Part VI of this Chapter." The definition of mine discharge speaks only of "seepage from refuse disposal areas." Since this is not self-evident, a reference to the definition has been made. The references to erosion, runoff, flooding and overflow have been removed since these are not found in the definition of mine discharge directly in connection with refuse areas. Whether these are mine discharges or non-point source mine discharges will be decided in the context of those definitions on a case by case basis.

The Coal Association objected to Rule 506(d) insofar as it provided that refuse areas "not be located . . . in an aquifer recharge area . . . unless special provisions are made to protect such." They felt that the difficulty in defining "aquifer recharge area" imposed an impossible burden on them. Rather than delete the reference to aquifer recharge area, Rule 506(d) has been rewritten to provide that the burden of proof is on the Agency to show that an area is an aquifer recharge area (ICA Comment 19).

Rule 506(e) establishes rules on spreading and compacting. These are reminiscent of the solid waste rules. The original proposal specified only that acid-producing solid mine refuse be spread and compacted and covered when necessary with "non-acid-producing material." This has been modified to include the word "suitable" before "non-acid-producing material." Impermeable clay would be a suitable cover material in that it would prevent water and air from reaching the acid-producing material. However, the Agency may approve other suitable materials. Rule 506(e) permits alternate refuse disposal methods at the Agency's discretion (R. 15, 114). These will be subject to Rule 502.

Rule 506(e) provides that "acid-producing solid mine refuse shall be immediately spread and compacted in layers and covered as necessary with suitable non-acid-producing material." The Agency requested that "as necessary" be stricken and replaced with the following language: "Covered in accordance with an approved refuse disposal plan." This is rejected. Rule 506(a) provides that a state or NPDES permit contain a refuse disposal plan as a condition. Disposal of refuse other than in accordance with a plan will be a violation of Rules 302 or 408. A separate provision in Rule 506 requiring compliance with certain permit conditions is redundant (Agency Comment 20).

Part IV of the old Chapter 4 contained specific rules on thicknesses, cover and intervals for covering acid-producing mine refuse. These have been eliminated from Chapter 4 in this revision. The Agency will by permit condition and/or criteria determine how much and at what intervals cover shall be applied, within the constraints of Rule 506(e).

The Coal Association has requested the addition of Rule 506(h) which provides that "Subsection (e) shall not apply to acid-producing solid mine refuse disposed of underground or in strip pits where the disposal is below the level of natural drainage. However, a layer of at least two feet of suitable non-acid-producing material shall be applied no later than one year after completion of a refuse pile in an open pit." The Coal Association requested incorporation of language sub-

stantially identical to that presently contained in Rule 401(d) of the old Chapter 4. Unnecessary language has been stricken (ICA Comment 20).

Rule 506(h) applies to disposal below the level of natural drainage either underground or in a strip pit. A layer of at least two feet of final cover is required for disposal in an open pit, whether the refuse disposal is above or below the level of natural drainage.

Rule 506(f) and (g) govern revised refuse disposal plans. This establishes a special rule on when a new or supplemental permit is required. A new permit is required if the revised plan contains any change from the permitted plan. Rule 506(d) requires that a revised disposal plan result in a new permit application which must be made prior to implementation of the revised plan, ninety days before for a state permit and 180 days for an NPDES permit.

The original proposal defined revised disposal plan as one with a "substantial" change. On the Agency's motion and over the Coal Association's objections the word "substantial" has been deleted. A new permit is required before there is any deviation from the permitted plan. Of course the Agency can be more or less specific in permit conditions as required to assure that the standard of Rule 502 will be met.

507 Experimental Permits for Refuse Disposal (0-403)

Rule 507 provides for experimental permits for refuse disposal. The standard for issuance of an experimental permit is not the same as usually applied to permit issuances by Rule 502. The experimental permit may issue if the operator demonstrates a reasonable chance for compliance with the Act and Chapter 4. The rule sets forth special monitoring and reporting requirements. The procedure is laid out for notice and termination of the experimental permit (R. 114).

The Coal Association requested deletion of Rule 507(c) concerning submission of performance data and cost information as a condition for an experimental permit. In certain cases the costs of such an experiment can give the experimenter a competitive edge which he has a right to enjoy as a consequence of undertaking

the experiment and would lose this if the results were made public. Rather than delete Rule 507(c) it has been altered to provide that the Agency "may require" as a permit condition that the permittee submit performance data and cost information during the operation of an experimental refuse area (ICA Comment 21).

508 Permit for Use of Acid-producing Mine Refuse (0-404)

Rule 508 requires that a state or NPDES permit include as a condition a plan for the use of acid-producing mine refuse if the operator is to use such. Use of acid-producing mine refuse is a mining activity as defined by Rule 201 for which a permit is required under Rule 401 (R. 112).

Rule 504(b)(17) requires a plan for use of acid-producing mine refuse in a permit application. The Agency may set forth in an Agency guidance document under Rule 501 criteria for the use of acid-producing mine refuse. The standard for issuance of a permit for use of acid-producing mine refuse is that contained in Rule 502.

Rule 404 of the old Chapter 4 contained an absolute proscription of use or offer of acid-producing mine refuse. This proposal would allow such use by permit.

509 Abandonment Plan (0-502)

Rule 504(b)(16) provides that an application for a permit include an abandonment plan. Under Rule 509(c) the permit must include a plan as a condition. This represents a drastic departure from the present Chapter 4 which requires an abandonment permit subsequent to abandonment of the mine. The Agency has had considerable difficulty with enforcing the requirement of an abandonment permit. Requiring the abandonment plan will force the operator to confront the problem prior to abandonment and the operator will no longer be able to claim ignorance of the requirement to take steps on abandonment (R. 14, 20, 39, 54, 66, 78, 112).

The EcIS was able to quantify the costs of this. This represents one of the few identifiable costs associated with this revision. An abandonment plan likely

involves an engineering fee of $1000 or more. This fee will have to be paid prior to application for the permit. This requirement therefore increases the capital investment required to open a mine and obtain a permit. The cost of mining is increased somewhat by the cost of tying up this capital for the period of time the mine is open (E. 42, 44, 99).

Rule 509(a) has been modified to delete the word "adequate" before abandonment plan. Rule 509(b) has been modified to track the language of Rule 505(b). The adequacy of the abandonment plan will be determined by the standard for permit issuance contained in Rule 502.

Rule 509(c) in the Proposed Order has been deleted. Under Rule 501 the Agency may issue criteria providing for the abandonment of mine related facilities. Repetition of this Rule in Rule 509 is not necessary.

The Coal Association requested deletion of all references to the abandonment plan in the rule (ICA Comment 15). The Agency agrees that the abandonment plan will be very similar to the reclamation plan under the reclamation law. In most circumstances the reclamation plan will suffice as an abandonment plan. Since they are very similar in all cases the additional costs imposed by the requirement of the abandonment plan are minimal. It is necessary that the Agency retain control over abandonment of mines in order to carry out its duties under Section 4 of the Act.

Rule 509(b) has been modified in response to comments by the Joint Committee staff. The references to Rules 502 and 501 are now contained in Rules 509(b)(2) and 509(b)(3), respectively. Rule 509(b)(1) contains the requirement of completion of abandonment within one year. Rule 509(b)(4) provides that this time limitation is inapplicable to abandonment plans for surface coal mines which are approved as reclamation plans under the Reclamation Act. The Department of Mines and Minerals has recently proposed rules relating to reclamation plans, although there appear to be errors in the text which render the proposal difficult to understand (Illinois Register, June 13, 1980, p. 264, Section 1816.116).

The time requirements under the Reclamation Act are subject to interpretation. Furthermore, the time in which reclamation of a given area must be completed commences with the time that area is first disturbed, while the requirement of one year under Rule 509(b)(1) attaches only at the time the site is abandoned. In many circumstances the Reclamation Act will require completion of reclamation work before it would be required under Rule 509(b)(1), although in some cases it may allow a longer time. On the assumption that detailed regulations concerning the time for reclamation are forthcoming, the Board has provided that approved reclamation plans are exempt from the one year time limit. This exemption extends only to "approved" reclamation plans. Unless the administrative apparatus to approve plans is in place, this exemption will be inapplicable.

Under Rule 509(b)(2) reclamation plans are still subject to the requirements of Rules 501 and 502. It is not the Board's intention that permits be issued with open-ended abandonment plans. In most cases an applicant who can specify no time whatsoever for completion of reclamation would not meet the burden under Rule 502. The permit should be denied or issued with the abandonment plan modified to provide for a definite time as a permit condition under Rule 501. However, the Agency should specify a time which would be compatible with the reclamation plan.

Rule 509(b)(1) sets an upper limit of one year for an approvable abandonment plan. The applicant must present a plan which, if executed, would result in satisfactory closing of the facility within one year. The plan should usually include a time schedule. The Agency may deny the permit if the plan calls for completion of steps in unrealistically short times or if it requires an unnecessarily long time, even if less than one year.

Rule 509 is not a rule directly requiring completion of abandonment within one year. Rather it is a rule relating to acceptable permit conditions. The actual time for completion of abandonment is to be determined by permit condition. In an enforcement action, rather than Rule 509, violation of the permit condition should be alleged. In most cases the permit should contain a time schedule. It will be unnecessary for the Agency to

wait one year, or until an approved reclamation plan should have been completed, to file an enforcement action. The breach of permit condition will occur as soon as an increment of the schedule has not been met. The Agency will avoid difficulties in enforcement by insisting on specificity in abandonment plans (EPA v. Minerals Management, PCB 79-58, March 20, 1980).

The abandonment plan may be modified through a supplemental permit application at any time, either before or after abandonment. The Agency may extend the time for completion beyond one year through this process. Modification of abandonment plans is subject to the general rules on permit modification as well as Rules 509(c) and (d).

510 Cessation; Suspension or Abandonment [0-501(a)]

Rule 510 covers cessation, suspension or abandonment. Rule 510(a) provides that the operator notify the Agency within thirty days of abandonment, cessation or suspension of mining. Rule 510(b) makes it clear that the operator must provide interim impoundment, etc. to avoid violations of the Act during cessation or suspension of active mining. The operator will also be required to avoid violations during execution of the abandonment plan, although this will be covered by permit conditions and the general rules on mining activities.

Rule 510(c) sets forth the rule that the abandonment plan must be executed upon abandonment. The definition of abandonment includes transfer of ownership. This represents a substantial change from the existing Chapter 4. In the past operators have avoided their responsibilities for properly abandoning a mine by transfer of ownership to an insolvent corporation. Such a transfer will be an abandonment under the new Chapter 4 and the and the transfer will not allow the operator to escape responsibility for adequately closing the site (R. 14, 20, 39, 54, 66, 78, 112).

Rule 510(c) provides a defense to the requirement to execute the abandonment plan in the event the operator demonstrates that the transfer of ownership was to a responsible party. A responsible party is someone who has already obtained permits to operate the same mine. If the mine is transferred to a party who does not have a permit at the time of transfer but subsequently obtains

one, the transferor will be relieved of the obligation of further executing the abandonment plan. However, if the transferor has failed to perform part of the plan during the interim, there will have been a breach of the permit condition which will not be excused.

It is assumed that a transferree who will be financially unable to execute an abandonment plan will be unable to obtain the necessary permits to operate the mine. In particular a coal operator will be unable to meet the bonding requirements of the Reclamation Act.

The Coal Association requested that the requirement of notification of cessation or suspension of active mining attach only where cessation or suspension is for more than ninety days as opposed to more than thirty days as provided in the Proposed Order (ICA Comment 23). Mining operations can be shut down for more than thirty days for factors beyond the operator's control such as weather, mechanical or electrical failures. The operator's work force will normally be curtailed during cessation or suspension so that there will be fewer people at the site to observe and correct pollution problems. In the event of a strike, the Agency would ordinarily have knowledge of the cessation or suspension of mining activity. However, in the case of breakdown or such the Agency needs to be notified so that it can consider increased surveillance. Since the requirement of notification imposes a minimal burden on the operator, the thirty day requirement will be retained.

The Coal Association also requested deletion of Rule 510(c) and (d) for the reasons discussed above in connection with abandonment plans. These deletions are rejected for the same reasons (ICA Comment 24).

In connection with comments on Rule 201, the definition of "affected land," both the Agency and the Coal Association have requested deletion from the definition the provision that land is no longer affected when the abandonment plan has been completed to the Agency's satisfaction (ICA Comment 3; Agency Comment 6). Upon the Coal Association's suggestion, this has been moved to Rule 510(e).

Rule 510(e) provides that "Upon request by the permittee the Agency shall issue a certificate of abandonment whenever an abandonment plan has been satis-

factorily executed. Refusal to issue a certificate of abandonment shall be a permit denial, entitling the permittee to appeal."

511 Emergency Procedures to Control Pollution [0-205(a), 205(b)]

Rule 511(a) has been modified to provide that "A permittee shall notify the Agency within one hour of becoming aware of an emergency situation." Many surface mines cover thousands of acres. It is physically impossible to constantly survey every acre of that area on an hour by hour basis. Rule 511(a) has been modified to provide that the notification requirement attaches only whenever the operator actually becomes aware of the emergency situation (ICA Comment 25; R. 114).

The modification of Rule 511(a) is not intended to create a defense to a complaint alleging violation of other substantive rules of Chapter 4, for example, the mine discharge effluent standards of Rule 606. The operator is liable for discharges which result from an emergency situation, whether he is aware of these discharges or not. However, reasonable diligence in discovering the situation and repairing the damage may be mitigation under Section 33(c) of the Act. At the request of the Agency the word "hereunder" has been stricken from Rule 511(a)(2) (Agency Comment 22).

512 Mine Entrances [0-301(a) and (c)]

Bore holes, openings, drill holes, entrances to underground mines and auger or punch mine entries must be plugged and sealed to the extent necessary to avoid the threat of water pollution. The Agency requested a change in Rule 512 so it would read: "shall be plugged so as to avoid the threat of water pollution" (Agency Comment 23). The wording of the Proposed Order has been retained. Mine entrances must be plugged "to the extent necessary to avoid" water pollution. This is to make it clear that the type of action required depends on the threat of water pollution. It is not the Board's intent to require sealing of mine entrances for reasons other than prevention of water pollution.

513 Permit Area [0-203(b)]

Rule 513 requires that a state or NPDES permit specify a permit area. During permit term no portion of the affected land may be outside the permit area. This is a new provision which was not in the Agency proposal. The term "permit area" is taken from the Reclamation Act.

Under Rule 504(b)(1) the permit applicant must specify the location of the affected land and the maximum extent of the affected land during the term of the requested permit. If there is some area in the proximity of the facility into which mining cannot proceed without violation of the general standard for permit issuance under Rule 502, the Agency should exclude that area from the permit area. Otherwise the Agency should grant a permit area which will be consonant with the permit term.

PART VI: EFFLUENT AND WATER QUALITY STANDARDS [0-601(a)]

600 Preamble

Part VI applies to mine discharges as defined by Rule 201. If a mining activity has both a mine discharge and another discharge, it will be subject to both Chapter 3 and Chapter 4. Chapter 4 will govern the mining activities, including mine discharges. Chapter 3 will govern the other discharges (R. 15).

Rule 600(b) provides that except to the extent provided in Part VI, Parts II, III, and IV of Chapter 3 are inapplicable to mine discharges. In particular the effluent standards of Part IV are inapplicable to mine discharges and are supplanted by the discharge limitations specified in Rule 606. The old Chapter 4 did not make this altogether clear. The parameters of Chapter 3 which are not mentioned in Rule 606 are unregulated for mine discharges (E. 56). The water quality standards of Parts II and III are incorporated by Rule 605 which provides for water quality related effluent standards. This is substantially unchanged from the present Chapter 4.

Part VI applies to mine discharges from facilities even if they may be exempt from the state permit requirements under Rule 403. Likewise Part VI applies to any incidental mine discharge from a facility which possesses a Chapter 3 NPDES permit.

601 Averaging [0-601(d)]

The Proposed Order provided that compliance was to be determined on the basis of 24-hour composite samples averaged over any calendar month, with no single 24-hour composite sample in excess of two times the standard and no grab sample in excess of five times the standard. This "1, 2, 5" averaging rule is the same as the averaging rule proposed for Part IV of Chapter 3 in R76-21.

The Coal Association requested an averaging rule based on grab samples arithmetically averaged over a calendar month with no grab sample in excess of two times the numerical standards. The Agency agreed with this (ICA Comment 26; Agency Comment 24). The Board has essentially adopted the proposed modification. However, rather than abandon the 1, 2, 5 averaging rule altogether, the rule provides for an election by individual permit applicants. Rule 602(f) has been added to the proposal to provide that the Agency may by permit condition require monitoring and reporting on the basis of grab samples if the permit applicant so elects. Averaging based on grab samples is provided by the Rule 601(b) in this event.

A problem could arise if a single grab sample were taken within one calendar month. The grab sample would have to meet the primary standard when averaged with itself. Therefore the proposed language has been altered slightly to provide for determination on the basis of three or more grab samples averaged over a calendar month.

The second sentence of Rule 602(e) also provides for monitoring on the basis of grab samples after demonstration that they reflect discharge levels over standard operating conditions. A permittee who has a record of consistent discharge monitoring reports should be allowed reduced monitoring under Rule 602(e). In this situation

the 1, 2, 5 averaging of Rule 601(a) is applicable since the permittee has elected monitoring under Rule 602(e).

The comments appear to be based on fundamental misinterpretations of the relationship between Rule 601, 602, and 606. The Coal Association's principal concern with inclusion of non-point source mine discharges in the definition of mine discharge was that it could result in imposition of monitoring of sheet runoff which is technically infeasible (ICA Comments 1, 4). The principal concern with Rules 601 and 602(e) appears to be that adoption of the 1, 2, 5 averaging rule would result in a requirement of monitoring on the basis of thirty day composite samples (ICA Comment 26; Agency Comment 24).

Underlying the comments is an assumption that a discharger must show compliance with the effluent standards through monitoring and reporting. There is no such rule in Chapter 4 or Chapter 3. In Chapter 4 the monitoring and reporting condititons are governed by Rule 501. The Agency should impose such monitoring and reporting as may be necessary to accomplish the purposes of the Act and which is not inconsistent with Chapter 4. There is no requirement that all of the parameters listed in Rule 606 be monitored and there is no reason why monitoring of additional parameters cannot be required where necessary.

Except as expressly stated, the averaging rule and the rule on reporting and monitoring are independent of one another. The interpretation that Rule 601 as proposed required dischargers to produce monthly a grab sample less five times, a daily average less than two times, and a thirty day composite less than the primary standard is not stated in Chapter 4 and is incorrect. The Board has modified the rules since the suggested changes have merit apart from that stated.

602 Sampling, Reporting and Monitoring [0-601(b) and (c), 603, 604]

Rule 602 provides for sampling, reporting and monitoring. Similar provisions are Rules 501 and 910(f) of Chapter 3. Rules 602(a) and (c) provide for sampling

points. Where treatment is provided, sampling is to be between final treatment and mixture with waters of the state. Where treatment is not provided, samples are to be taken at the nearest point of access, but again before mixture with the waters. Rule 602(b) provides that the operator shall design and modify structures so as to permit the taking of effluent samples.

Rule 602(d) provides that an operator report the actual concentration or level of any parameter identified in the permit at a reasonable frequency to be determined by the Agency. The reporting requirement will be specified in the permit (R. 16). Recent cases have challenged the authority of the Agency to require monitoring and reporting of parameters other than those for which effluent limits are specified in the permit. The intent of this section is that the Agency may specify not only those parameters for which effluent limits are set, but also parameters for which water quality levels are set by regulation or any other parameter it is necessary to have monitored.

Rule 602(e) sets forth that reporting and monitoring are presumptively on the basis of 24-hour composite samples averaged over a calendar month. However, the Agency may permit lesser reporting. Rule 602(f) has been added to the Proposed Order. This is discussed in connection with Rule 601. Rule 602(g) provides for monitoring after abandonment. Rule 602(h) incorporates the USEPA's current manual of practice.

603 Background Concentration [0-601(e)]

Rule 603 provides that the background level of contaminants in intake water are not to be deducted in order to determine compliance with the effluent standards. This is the same as Rule 601(e) of the old Chapter 4 and is largely the same as Rule 401(b) of Chapter 3 (R. 16).

Because mining activity necessarily disturbs the land and the flow of water over and through the land it is the intent of this Chapter to regulate certain discharges which in other contexts might be deemed background concentrations. As used in this Chapter, background concentration does not include contaminants

naturally occurring in underground waters which are brought to the surface as a result of mining activity or which are pumped from one underground formation to another. Also it does not include contaminants picked up by surface water as it flows through the affected area.

604 Dilution (0-602)

Rule 604 provides that dilution of effluents is not an acceptable treatment method. This is similar to Rule 602 of the present Chapter 4 and virtually identical with Rule 401(a) of Chapter 3 (R. 17, 116). The dilution rule interacts with Rule 605 which provides that effluents may not cause a violation of water quality standards. In the hearings on this proposal and in R76-7, concern was expressed that the dilution rule prevents certain treatment methods for chloride, sulfate and TDS. In particular it was feared that controlled release of impounded water was proscribed by this rule. Controlled release of high TDS water during periods of naturally occurring high flow in streams is not dilution. In this case the mixing occurs at a point after the discharge.

Another possible technique of avoiding a TDS water quality violation would be impounding surface water during wet periods and augmenting the flow of the receiving stream during dry periods to dilute effluents. This would not constitute a violation of the rule against dilution. However, it could constitute surface drainage diversion. A permit would be required under Rule 401.

605 Violation of Water Quality Standards [0-605(a)]

Rule 605 incorporates the water quality standards contained in Parts II and III of Chapter 3 into Chapter 4. This is the same as Rule 605(a) of the present Chapter 4 and is similar to Rule 402 of Chapter 3.

The second sentence of Rule 605 provides that the Agency shall take appropriate action under Section 31 or 39 of the Act. This is redundant because under the remainder of Chapter 4 the Agency must take such action. However, certain operators have recently contended before the Board that incorporation of water quality related

effluent standards is not authorized by Board regulations. The second sentence is to make it clear that water quality related effluent standards can be incorporated into permit conditions (R. 17).

605.1 Temporary Exemption from Rule 605

This rule will allow the Agency to issue permits through July 1, 1983 to authorize discharges which violate Rule 605 by causing water quality violations of TDS, chloride, sulfate, iron and manganese. For the remainder of the discussion of this rule only, these will sometimes be referred to collectively as TDS. An operator desiring such exemption may apply for a new state or NPDES permit containing the exemption. Rule 605.1(c) sets a special standard for permit issuance different from that contained in Rule 502. The burden will be on the Agency to demonstrate significant adverse effect on the environment in and around the receiving water in order to deny the permit. The operator, however, will have to submit adequate proof that the discharge will not adversely affect any public water supply. In order to qualify for the exemption the operator will have to adopt "good mining practices," housekeeping measures designed to minimize TDS discharges.

Rule 605.1 was first proposed on November 21, 1978 by the Institute. This was after merit hearings on the proposal were concluded. On December 14, 1978 the Board ordered the record in this case held open to take evidence on Rule 605.1. Merit hearings on the proposal were held at the same time as the economic impact hearings. This proposal has generated the bulk of the controversy in this proceeding.

Mine discharges are often high in TDS. Much of this comes from water pumped from mine areas or runoff from spoil banks. A substantial number of mines in the state produce mine discharges which cause water quality violations in the receiving streams. Coal mines can seldom be located adjacent to large rivers, but rather must be located where coal deposits are located. Their discharges are frequently into intermittent streams so that the discharge comprises the bulk of the flow of the stream. Therefore the discharge is limited, not by the

effluent standards of Rule 606, but by the more stringent water quality standards referenced in from Chapter 3 (R. 129, 142, 151; E. 6, 11).

In a related proceeding the Coal Association sought to exempt coal mines from application of Rule 605 with respect to TDS. Entry of a Final Order in that proceeding has been stayed pending final resolution of this proceeding (Order of June 12, 1980).

Presently relief from Rule 605 is available only through the variance procedure. At the hearings, the Coal Association stated that a variance application can cost as much as $10,000 (E. 126). There was discussion at the hearings of a class action variance. However, this was rejected (E. 19, 80).

Under the auspices of the Institute a joint Agency/industry group called the Mine Related Pollution Task Force has been formed. The Task Force is conducting a study to propose an eventual permanent replacement for Rule 605. It expects to present this proposal before July 1, 1981 (E. 106).

A large amount of earth must be disturbed during the process of coal mining. Some of the TDS in the discharge results from direct leaching of soluble minerals from the rock by groundwater or rainwater falling on spoil banks. This is the source of chlorides, which is not generally the main problem in Illinois. Much of the problem in Illinois is sulfates. These are formed when air or dissolved oxygen comes into contact with sulfur-containing minerals which have been disturbed. Sulfuric acid is formed, producing acid mine drainage. Neutralization of that discharge to meet the pH requirements of Rule 606 may further increase the TDS concentration of the discharge.

The Economic Impact Study in R76-7 has been incorporated into this proceeding by reference (E. 103; Economic Impact of Dissolved Solids Regulation upon the Coal Mining Industry, Linda L. Huff and Gregg A. Jarell, Institute Document No. 77/28). Although there is treatment available to reduce the iron and manganese levels, treatment to reduce the soluble components of TDS is not

economically available. Available technology includes reverse osmosis and distillation. These are energy intensive and very expensive on a scale that would be required to meet most mine discharges. The Economic Impact Study in R76-7 concluded that for the mines in the state to meet the present TDS water quality standard would involve a capital investment of $138.4 million and annual operating costs of $37.4 million (E. 69).

The Task Force has promulgated, as an interim measure, a code of good mining practices. The approach taken is not end-of-the-pipe treatment of the discharge, but rather a series of housekeeping measures which are likely to reduce the TDS concentration resulting from mining activities. These are summarized on page 4 of Exhibit 4. These involve practices which may minimize water from coming in contact with disturbed areas, including bypass diversions, slope and gradient reduction, stabilization, sealing of bore holes, introduction of mine barriers, special steps for disposal of potential contaminant producing materials and fracture zone sealing. There are also measures involving retention and control of waters exposed to disturbed materials, including erosion and sedimentation controls, reuse of discharges and minimization of exposure of water to disturbed materials. Other methods include a rerouting of discharges to larger streams where the dilution would be provided, augmentation of flow of receiving streams to provide dilution and controlled release of effluents during times of high flow when there is ample dilution.

Many of these practices are novel and reliable cost estimates are not available. Therefore it is not possible at this time to do an actual economic impact study evaluating the cost of requiring the code of good operating practices. However, the Board incorporates the Economic Impact Study in R76-7 as an economic impact study on Rule 605.1. Although that study does not address the code of good operating practices, it does conclude that enforcement of the present standard by requiring end-of-the-pipe treatment would be very expensive. There is expert testimony in the record to substantiate that, although the costs of good operating practices are unknown, they will be substantially less than the cost of end-of-the-pipe treatment (E. 146).

The eventual rule may include some combination of these good housekeeping procedures together with a proposal to increase the water quality standard for TDS in intermittent streams receiving coal drainage (E. 73, 110, 128).*

The Agency may issue the exemption if the operator submits proof that he is utilizing good mining practices designed to minimize discharge of TDS. The Agency is authorized to promulgate the code of good mining practices. Compliance with the code will be deemed evidence that the operator is utilizing good mining practices. However, should the Agency deny the exemption due to non-compliance with the code, the operator will be free on permit appeal to argue that his practices, though not conforming to the code, are designed to minimize the discharge of TDS. If provisions of the code are not reasonably related to prevention of water pollution, this will be an issue before the Board upon permit appeal.

The Agency proposal was vague on the question of the burden of proving adverse effect on the environment. At the hearing the participants agreed that the Agency should have the burden of demonstrating adverse effects. This is at variance with the usual burden of proof in permit issuance. Section 39 of the Act provides that it shall be the duty of the Agency to issue such a permit "upon proof . . . that the facility . . . will not cause a violation of this Act or regulations hereunder." The Board in this situation is by regulation reversing the burden of proof (E. 16, 30, 34, 37, 79, 81, 112, 118).

At the hearings there was a discussion of whether the intent of the proposal was that the Agency fix an interim limitation on the TDS. The conclusion was that under the proposal the Agency could not set such an interim limit. If the Agency can demonstrate significant adverse effect on the environment, then it must deny the exemption. In this case the applicant will have to proceed by way of the variance route (E. 74, 78).

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*The Institute has recently published a related study which has not been made a part of the record in this proceeding (Technical and Economic Review of Control Methods for Total Dissolved Solids, Sulfates, Chlorides, Iron and Manganese, Linda L. Huff, Document No. 80/06, April 1980).

The original proposal specified "significant adverse effects on aquatic life or existing recreational areas of the receiving streams." This has been changed to "effect on environment in and around the receiving water." The exemption should be denied if there is significant adverse effect to riparian areas and in general to the environment in and around the receiving water (E. 115).

The termination date for Rule 605.1 has been extended from the 1981 date specified in the Proposed Order into 1983. Even if a proposal were made during 1980, the economic impact study could not be completed before 1983.

606 Effluent Standards (0-606)

Rule 606 sets effluent standards for mine discharges. Rule 606(a) makes it clear that the effluent limitations contained in Part IV of Chapter 3 do not apply to mine discharges. This has always been the law. However, it is not clearly set forth in the old Chapter 4 (E. 56).

Rules 605 and 606(a) have been modified to include references to non-point source mine discharges. The standards of Rule 606(b) are inapplicable to non-point source mine discharges. However, the water quality standards of Rule 605 are. The term "effluent" has been stricken from both Rules 605 and 606(a). These rules apply to discharges whether they are effluents or not (ICA Comments 1, 4).

New Storet numbers have been specified for acidity, ammonia nitrogen, zinc and fluoride. The old Rule 606 regulated nitrogen at 5 mg/l whereas the new rule specifies ammonia nitrogen, measured as N.

The standards for zinc, lead and acidity are unchanged except for the Storet number. The pH range has been tightened from five to ten to six to nine (E. 45, 51). The EcIS concluded that this would benefit the environment (EcIS 27; E. 52). The cost will be minimal since only one additional mine will be out of compliance with the new standard (EcIS 6, 39).

The standard for iron has been decreased from 7 to 3.5 mg/l and the standard for total suspended solids (TSS) has been tightened from 50 to 35 mg/l (R. 46, 51, 53). These changes are environmentally beneficial (EcIS 25, 31; E. 51, 53). Under the averaging rule, these standards must be met on a thirty day average. They are doubled when measured on a daily composite. The new numbers are the same as federal guidelines applicable to coal mines under 40 CFR 434. A recent permit appeal to the Board revealed that there is some dispute as to whether the federal or the existing Chapter 4 standards are more stringent (Peabody Coal Co. v. EPA; PCB 78-296, September 20, 1979; on reconsideration, May 1, 1980). This is because the federal standard, when coupled with the averaging rule and precipitation exception, sometimes yields a higher number on a 24-hour composite. However, the Board concludes that it is more difficult to meet the lower thirty day average than what the discharger must now meet and that this is a more stringent standard (EcIS 25). The economic impact will be minimal since most mines subject to the rule must meet the federal guidelines anyway (EcIS 42).

The fluoride standard has been increased from 8 mg/l to 15 mg/l. In the hearings evidence was presented to substantiate this relaxation of the standard. The old standard was based on experiments which were done in deionized water containing fluoride. In water containing other ions of hardness equivalent to typical Illinois mine drainage water, the fluoride is not nearly so toxic to aquatic life as had been previously believed (R. 117; E. 52).

Footnote No. 1 is not applicable to acidity. Acidity will be subject to averaging. Footnote No. 1 applies only to pH (Agency Comment 26; ICA Comment 23). Compliance with the effluent standards other than pH is determined by the averaging rule contained in Rule 601. Compliance is based on a thirty day average with no 24-hour composite exceeding two times the standard and no grab sample exceeding five times the standard. Rule 601(b) provides an alternative averaging rule for permittees electing monitoring based on grab samples.

Footnote 3 provides an exception for flows resulting from a 10-year, 24-hour precipitation event. This exception applies only to a facility designed, constructed

and maintained to contain or treat discharge from less than a 10-year, 24-hour precipitation event, but designed to bypass a larger precipitation event. This exception is taken from the federal standards of 40 CFR 434. Federal mine safety regulations mandate that holding ponds be designed to bypass such rainfall for safety reasons. This exception has been added in order to bring the effluent standards into line with these other regulations (E. 47, 56, 124).

The Economic Impact Study found that it would cost $40,000 to $90,000 per mine to construct holding basins to contain a 10-year, 24-hour storm (EcIS 42; E. 56, 124). However, this conclusion may be affected by confusion in the proposal concerning the extent of footnote 3 to Rule 606. It has been argued by the industry that the old Chapter 4 required construction of indefinitely large holding basins and that 10-year/24-hour basins therefore represent a cost savings over the present requirements of Chapter 4 (Peabody Coal Co. v. EPA, op. cit.).

On December 28, 1979 the United States Environmental Protection Agency again changed the rules on which footnote 3 is based. As written it tracks current federal regulations as closely as possible (44 FR 76,788, 76,791; 40 CFR §434).

Footnote No. 3 has been made applicable to acidity and pH. These parameters are exempt under federal regulations. Difficulties in writing permit conditions could arise if the state rule were different from the federal rule. During a large precipitation event one would not expect to see violations of the acidity and pH rules because of the large amount of dilution and the buffering effect of the runoff. However, whether there would be a violation or not would be beyond the control of the operator in many cases where there is a large precipitation event. The Board has concluded that the difficulties in interpretation of the federal and state laws which could arise by not exempting these two parameters are not justified considering the limited additional environmental protection afforded.

The Coal Association requested a footnote providing that monitoring of iron, lead and fluoride would be required of the coal industry only where the Agency deter-

mined that there was a probability that the applicable standards would be exceeded. This language is also rejected. The Board notes that iron is a common constituent of coal mine discharges, although lead and fluoride are uncommon.

A rule on monitoring is not appropriate in Rule 606. Rule 602 provides for monitoring of any parameter identified in the state or NPDES permit. It is not the Board's intention that monitoring always be required of all of the parameters identified in Rule 606. Imposition of monitoring of lead and fluoride will be subject to the same constraints as monitoring of any parameter, the limitations applicable to permit conditions in general (Rule 501).

The Coal Association has requested inclusion of language exempting an operator from the upper pH limit to the extent necessary to achieve compliance with manganese limitations. This language is rejected. Where it is necessary for an operator to raise the pH above 9 as part of the treatment process it will be necessary to neutralize the effluent prior to discharge.

607 Offensive Discharges [0-605(b)]

Rule 607 proscribes drainage containing settleable solids, floating debris, visible oil, grease, scum or sludge solids. Color, odor and turbidity should be reduced below obvious levels. This is Rule 605(b) of the present Chapter 4 and Rule 403 of Chapter 3 (R. 47, 51). The language used in the Proposed Order, "Drainage from any affected lands or operation" has been replaced with "mine discharge effluent." It is preferable to use the term which is defined in Rule 201.

608 Non-point Source Mine Discharges

Rule 608 has been added in response to comments of the Coal Association. This has been discussed in connection with the definitions of mine discharge and non-point source mine discharge in Rule 201 (ICA Comments 1, 4).

## PART VII: COMPLIANCE AND EFFECTIVE DATES

### 701 Effective Date

Part VII contains transitional rules covering situations which will arise after the effective date of Chapter 4 which will be upon filing with the Secretary of State. The Proposed Order has been changed in response to recent amendments to the Administrative Procedure Act [Ill. Rev. Stat. ch 127, par. 1005.01(c)] (Agency Comment 27).

### 702 Applications from Holders of Outstanding Permits

Rule 702 provides that a person holding an outstanding permit may make application for a new permit either before or after the effective date of this Chapter. It is anticipated that operators of coal transfer and storage facilities will want new permits. After the effective date the Agency may require a new permit application on 180 days notice. The Agency requested a minor change in language in Rule 702(c). This is rejected since there is a possible ambiguity in the language suggested by the Agency (Agency Comment 28).

### 703 Expiration of Outstanding Permits

The provisions of Chapter 4, other than Rule 401: State Permits, are effective on filing. The remaining rules of Chapter 4 become immediately effective. This includes all of Part VI, including the new effluent standards of Rule 606. Holders of outstanding operating permits may be subject to enforcement actions based on Rule 606 as provided by Rule 410 even if their discharges conform with their old permit conditions.

Rule 703 provides that the state permit requirement of Rule 401 becomes effective only on expiration of outstanding permits.

Rule 703(d) provides for expiration of the outstanding permit if application is not made by the date fixed through notification pursuant to Rule 702(b). Rule 703(c) provides for expiration upon issuance of a new state or NPDES permit for the facility. If the Agency denies the new permit or takes no action, the outstanding permit will remain effective for up to

three years as provided by Rule 703(a). If there are outstanding state and NPDES permits, the state permit will expire with the NPDES permit under Rule 703(b).

The NPDES permit requirement of Rule 302 is the same as that found in Rule 901 of Chapter 3. There is no need to stay enforcement of that rule since this revision does not impose an NPDES permit requirement on any additional facilities.

704 Abandonment Plan for Existing Permits

Rule 704 provides the requirement of old Rule 502 of an abandonment permit continues to apply to operators who have opened mines prior to the effective date. This will continue indefinitely until the operator is issued for the facility a state or NPDES permit which contains an abandonment plan. Such a permit may be issued under the procedures of Rule 702 and 703.

The Coal Association requested deletion of Rule 704 in connection with its comments on abandonment plans (ICA Comments 15, 28). This is rejected for the same reasons discussed in connection with Rule 509.

Pursuant to comments by the staff of the Joint Committee on Administrative Rules, Rule 106 of the proposed order was modified to provide that the old Chapter 4 will be superseded instead of repealed. As adopted Rules 106 and 704 no longer contradict each other. Therefore the phrase "Rule 106 notwithstanding" has been stricken from Rule 704. In the event old Chapter 4 is repealed in the future, it will be necessary to provide for continuation of the abandonment permit requirement for mines abandoned under old Chapter 4.

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

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Final Opinion was adopted on the 24th day of July, 1980 by a vote of 5-0.

Christan L. Moffett

Christan L. Moffett, Clerk
Illinois Pollution Control Board