

ILLINOIS POLLUTION CONTROL BOARD
June 2, 1983

IN THE MATTER OF:)	
)	
ALTERNATIVE CONTROL STRATEGIES,)	R81-20
FINAL RULE,)	FINAL RULE
CHAPTER 2: AIR POLLUTION.)	Docket A

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by J. Anderson):

This rulemaking is undertaken pursuant to Section 9.3(c) of the Environmental Protection Act (the Act), as amended by P.A. 82-0540 on September 16, 1981. P.A. 82-0540, known as the "Bubble Bill" or HB 1354, was designed to enable owners and operators of air pollution emission sources, either individually or collectively, to utilize the most economically advantageous mixture of control strategies to achieve environmental goals. This usually involves overcontrolling at one emission source and undercontrolling at another. The statute provides that the mixture of control strategies used in an "alternative control strategy" (ACS) permit must provide equivalent protection for the environment. The basic concept is that an ACS should have no negative impact on the environment and should be economically beneficial to owners and operators. To insure that the unique issues involved in ACS permits are adequately addressed, Section 9.3 requires the Board to promulgate standards for issuance of permits and a permitting program for sources utilizing alternative control strategies.

The Board acknowledges with appreciation the role of the late Vice Chairman of the Pollution Control Board, Irvin G. Goodman, in the development of these regulations. Mr. Goodman's insights and hard work on these regulations over a period of two years contributed greatly to the Board's understanding of the possibilities and pitfalls inherent in this unique approach to air pollution control.

The Board also acknowledges with appreciation the role of Board Assistant, Ms. Patricia F. Sharkey, as hearing officer in this proceeding and for her assistance in the drafting of this Opinion and Order.

Authority and Procedural History

Section 9.3(b) requires the Board to issue "interim regulations" within 120 days after the effective date of P.A. 82-0540 through an expedited rulemaking process which bypasses Title VII requirements of the Act. An interim rule governing Alternative Control Strategies was adopted by the Board on May 13, 1982. The purpose of this expedited proceeding was to provide regulatory guidance which would enable owners and operators to begin to plan and implement ACS to meet imminent compliance deadlines.

The Board initiated public comment on the interim rules by circulating a "public draft" proposal and inviting comments and alternative proposals. The Illinois State Chamber of Commerce filed an alternative proposal which was consolidated for review with the Board's initial proposal under Docket R81-20 on September 16, 1981. The Illinois Environmental Protection Agency (IEPA) offered another alternative proposal on October 9, 1981. These three proposals were labeled Exhibits 1, 2, and 3, respectively, in the record of the proceeding. (Additional amendatory language was proposed and entered into the record in the course of the proceeding.) Hearings were held on R81-20 on October 15, 16, and 19, 1981 to consider the merits of all proposals before the Board. First Notice of the Interim Rule was published in the Illinois Register on January 18, 1982. The Joint Committee on Administrative Rules issued a certification of no objection on May 11, 1982. The Interim Rule, which contained elements of each of the proposals before the Board, reflected the public comment and testimony received, and incorporated the comments of the Joint Committee on Administrative Rules, became effective on May 20, 1982.

Section 9.3(c), also adopted in P.A. 82-0540, mandated that the Board replace the Interim Rules with Final Rules no later than December 31, 1982. To fulfill this mandate, the Board proposed on its own motion on July 1, 1982 that the Interim Rule be adopted as the Final Rule. Public comment was initiated by First Notice publication in the Illinois Register on July 30, 1982. Combined technical and economic hearings were held on September 7 and 9, 1982. The record in the interim rulemaking was consolidated with this Final rulemaking record to avoid unnecessary duplication. After consideration of this combined record and all additional comments on the Final Rule, a Second Notice Opinion and Order was entered on December 2, 1983 and sent to the Joint Committee on Administrative Rules. However, in deference to comments made by the Joint Committee, the adoption and filing of this rulemaking was delayed until after an Economic Impact Study was received and considered. (For further explanation see the Board Opinion and Orders of December 2, 1982 (p.2) and February 10, 1983.) The Board retained jurisdiction over the rule while additional hearings were held on March 7 and 11, 1983 to consider the Economic Impact Study (EcIS) and technical issues surrounding Section 202.145 of the Final rule.

After consideration of additional information presented in the March hearings, the Board has divided this rulemaking into two dockets. This Opinion and Order on Docket A contains the text of the Final Rule, as proposed for Second Notice on December 2, 1982. The Board finds that both the EcIS and the comments received on the EcIS support adoption of the rule as proposed, with the exception of one provision. (See discussion elsewhere in this Opinion.) Due to the procedural posture of this rulemaking (post-APA Second Notice) and the Board's stated concern that U.S. EPA approve this rule as a "Generic Bubble Rule" as soon as possible, the Board orders that Docket A be filed with the Secretary of State without delay.* In addition, due to technical and economic issues raised in the March hearings, the Board is simultaneously ordering that Docket B, a proposal to amend Section 202.145 of this rulemaking, be published in the Illinois Register consistent with APA First Notice procedures. (See First Notice Order, R81-20, Final Rule, Docket B, June 2, 1983.)

I. Overview

Basically, these regulations establish a permitting program. They describe the standards for Agency issuance of an ACS permit, as well as the information which must be contained in an ACS permit application to enable the Agency to make its determination. Due to the nature of ACS, several aspects of the ACS permit program differ from the standard permitting requirements contained in Part I of Chapter 2. For example, an ACS application must provide a demonstration of "equivalence" to other existing requirements with regard to emissions, environmental quality, and methods of compliance. In addition, each ACS emission source must comply with unique limitations contained in its permit. These limitations are predicated on the compliance with all other emission sources in the ACS. Thus, specialized provisions are necessary for recordkeeping and reporting, revision, renewal, and describing the responsibilities and liabilities of participants in multi-person ACS.

* Although the Board did receive additional comment in the March hearings requesting a delay in the filing of the Final Rule, this comment did not raise any new or substantial arguments supporting this request. This request appears to be based on a misperception on the part of the industrial community that it will be more difficult to amend the substance of a Final Rule, once adopted, than it is to amend an Interim Rule. As the Board stated in its December 2, 1982 Opinion this is simply not true. The Board recognizes that subsequent amendments to these rules may be needed as experience is gained in using ACS, and the Board by statute cannot reject consideration of any non-frivolous and non-duplicitous amendatory proposal made in the future. No greater procedural burden will apply to such a proposal than would apply to a proposal to amend the substance of the Interim Rule.

Because ACS permits are new and potentially more complex than other Chapter 2 permits, the Board anticipates that extensive communication between the permit applicant and the Agency will occur prior to issuance of an ACS permit. The regulations have been drafted to provide the flexibility necessary to tailor ACS permits to the variety of strategies which may be proposed. In response to comments received from the Joint Committee on Administrative Rules, Section 202.110(g) has been modified to require the Agency to demonstrate a need for any additional information. The application information, the recordkeeping and reporting, and the monitoring and testing provisions provide that the Agency may request any reasonable additional information which may be needed to make a determination and insure compliance under a particular ACS configuration. For example, an ACS proposal may include non-traditional emission sources, such as fugitive emission sources, or mobile sources. Although these sources present special problems and will undoubtedly require extensive documentation and safeguards to insure equivalency and compliance, (such as ongoing monitoring and evaluation of ACS involving open dust trades), it is unnecessary to address these special problems in the Board regulations. The Agency is responsible for reviewing such applications on a case-by-case basis within the context of these regulations, and for insuring conformance with the predicted air quality impacts.

The economic impact of the ACS regulations is clearly beneficial, as documented by the economic study. The Economic Impact Study, entitled "The Economic Impact of Proposed Regulation R81-20: Alternative Control Strategies: Bubble Policy; Doc. No. 83/09" (Ex. 2 Econ. Hearings), concludes that annual cost savings ranging from \$7.8 (low estimate) to \$25.6 million (high estimate) in 1985 may be attributable to adoption of these rules. A median annual cost saving of \$19.7 million is projected for 1988. The EcIS also projects an increase in state and local government revenues, as well as an increase in total employment in Illinois by 554 to 3,357 workers by 1992 due to adoption of these rules. (See EcIS pp. x-xiii, pp. 35-80, pp. 127-134).

II. Definitions

Chapter 2 definitions are made applicable to this Part. (The Board notes that definitions are contained in both Parts I and II of Chapter 2.) In particular, the definition of "emission source" (Rule 101), i.e., "any equipment or facility of a type capable of emitting specified air contaminants to the atmosphere," is important in the ACS context because trades under an ACS would focus on each "emission source" rather than an entire plant or "source." It should also be noted that the definition of "person" (Rule 101) includes any "agency, political subdivision of this State, any other state or political subdivision or agency thereof," Thus, governmental bodies, as "owners or operators," may participate in an ACS.

Several new definitions are made applicable to this Part only. Notably, "Actual Emissions," "Allowable Emission," "Emission Baseline," "Potential to Emit," and "Alternative Control Strategy (ACS)" are essential terms in an ACS context. Some of these terms may also be relevant to sources subject to "Part XI: Major Source Review Programs." However, those sources should refer to definitions contained in that part. Definitions of "Major Stationary Source" and "Stationary Source" were proposed to be included in the ACS rules by Illinois EPA. However, because of the ACS focus on "emission sources," the Board believes these definitions are irrelevant to this rulemaking.

III. Standards of Issuance

Each of the six standards in Section 202.120 must be met for issuance of an ACS permit. Sections 202.120(a) and (b) reflect the statutory constraints contained in Section 39.1(a) of the Act. Section 202.120(c) requires that methods for determining compliance must be equivalent to those associated with otherwise applicable requirements. The term "environmentally equivalent" has been replaced with the term "equivalent" in this section in response to the comment that environmental equivalence is confusing with regard to methodology. The function of this requirement is to insure appropriate mechanisms for determining the environmental equivalence of the ACS as mandated by the Act. Section 202.120(d) states that certain regulations cannot be superseded by an alternative strategy. These are: New Source Performance Standards (Part IX), National Emission Standards for Hazardous Air Pollutants (Part X), and the Major Source Permit Programs (Part XI). The constraint with regard to new sources is required by the Clean Air Act as interpreted in Federal case law. (See ASARCO, Inc. v. EPA, 11 ERC 1129 (D.C. Cir. 1978).)

Section 202.120(e) allows issuance of an ACS permit only if U.S. EPA has not disapproved it due to the existence of a federal enforcement action pending against an ACS participant. U.S. EPA commented that they would prefer that issuance be conditioned on U.S. EPA approval in these cases. While recognizing U.S. EPA's concern about these particular ACS, the Board is persuaded that the disapproval mechanism provides the best alternative for protecting the interests of the applicant, the State, and the federal government. Section 202.120(e) allows U.S. EPA to disapprove any ACS or compliance schedule "due to the existence of a federal enforcement action pending against a participant." If U.S. EPA cannot complete its review and make a positive finding that the ACS is acceptable under federal law within the time allowed, it is authorized under this language, which becomes federal law once it is approved in the SIP, to disapprove the permit simply due to the existence of the enforcement action. This should protect the federal enforcement interest. As a practical matter, an ACS applicant is likely to prefer to grant a waiver of its right to issuance of the permit and federal approval within the statutory

180 days, rather than to have the permit denied. Due to the existence of the 180 day deadline for IEPA action on the ACS permit (see Section 39.1(e) of the Illinois Environmental Protection Act), the IEPA would have no choice but to deny a permit which had not been approved by U.S. EPA at the end of 180 days anyway. By statute, failure of IEPA to act after 180 days would result in the "default" issuance of the permit as applied for, a result which would undermine both the state and federal review process. Thus, the Board cannot write a regulation which grants U.S. EPA more review time, but can only make the existence of federal disapproval a bar to issuance.

In response to a U.S. EPA comment during the First Notice period on the Final Rules, a sixth standard, Section 202.120(f) has been added which prohibits an increase in emissions of any pollutant which is either listed or regulated pursuant to Section 112 of the Federal Clean Air Act, governing National Emission Standards for Hazardous Pollutants (NESHAP's). The Interim Rule had anticipated that the standards of "environmental equivalence" would insure against any increases in a hazardous emission which endangered health or the environment. This would conceivably have allowed for an increase of a hazardous emission in exchange for a decrease of a more hazardous emission. However, this determination of greater and lesser hazards in the area of hazardous pollutants, where studies and conclusions are hotly debated, would be difficult, if not impossible, to make in the permitting process. Given this problem, the Board finds clear standards must be provided in the rule. The listed and regulated NESHAP's pollutants are identified by federal regulations, and thus provide a verifiable standard for the permit review. Under this rule no emission source may increase emissions of a pollutant which is listed or regulated under federal regulations promulgated pursuant to Section 112 of the Clean Air Act at the time the ACS permit is being reviewed.

IV. Application Information

In addition to specific information with regard to each emission source, the application must contain an analysis of emissions, environmental quality, and methods of assuring compliance. This analysis will provide the basis for the Agency determination of compliance with the standards of issuance and the overall equivalence of the ACS with other regulatory and statutory requirements. In each analysis (Sections 202.111, 202.112, and 202.113) the applicant must compare the ACS with a "base case," i.e., the emissions, impacts, or methods which would exist or be allowed under existing regulations.

The analysis of emissions should compare ACS emissions to the "baseline emissions," for each source involved in an ACS. Contrary to the argument of one commentor, the comparison of baseline and ACS emissions for each emission source is necessary to insure the equivalence and enforceability of the ACS. Notably U.S. EPA commented they will require submittal of the emission limitations applicable to each emission source in a "generic" type ACS to insure federal enforceability. Air quality analysis is too cumbersome to serve as a mechanism for ongoing oversight of an ACS or any other permit. To insure that emission reductions relied on for other purposes are not "double-counted" and that other unanticipated effects will not accompany the ACS, the analysis must also describe emission increases from emission sources outside the ACS which may accompany the proposed ACS. In response to comments, the additional phrase "or affect" has been deleted from Section 202.111(b). Although the Agency may consider any emission increase from an outside source which affects an ACS, it is not necessary to place the responsibility for identifying such outside sources on the ACS applicant.

The environmental quality analysis must address air quality impacts, risk to the public health and welfare, and other environmental impacts associated with the proposed ACS. Contrary to the argument of one commentor, the requirement that the ACS applicant describe any other environmental impacts which may accompany the ACS is not overly broad. The scope of this analysis is mandated by the language of P.A. 82-0540 which requires that ACS provide "equivalent protection of the environment." The effect of ACS emissions on the environment must be equivalent to that of emissions which would otherwise occur or be allowed to occur.

V. Modeling Exemption

One component of the environmental quality analysis required of an ACS permit applicant under these regulations is a comparison of air quality under existing regulations and under the ACS.

Generally, dispersion modeling is required to predict the impact of the ACS. However, because modeling is expensive and may not be necessary to insure air quality in some situations, Section 202.112(a) provides that the Agency may exempt an emission source from the general modeling requirement if any one of three specified demonstrations are made.

First, Section 202.112(a)(1) provides that if the pollutant which is the subject of the ACS is not susceptible to modeling or if, due to its nature, modeling will not identify its air quality impacts, the Agency may dispense with the modeling requirement. This, for example, may apply to VOC or NO_x ACS where modeling is often considered to produce ambiguous^x results. While providing flexibility, this provision also includes specific standards for the use of administrative discretion.

Second, Section 202.112(a)(2) provides an exemption from modeling requirements for sources located in close proximity to one another. The rationale for this exemption is that the accepted modeling techniques do not distinguish the impact of an ACS trade made between such sources as long as plume heights remained relatively the same. (Local impacts are primarily a function of plume heights, while long distance impacts are primarily a function of the distance between emission sources.) Although there is discussion in the record of various other distances (R. 129-140), the Board is persuaded by the logic supporting a 250 meter exemption. The 250 meter distance represents a reasonable estimate of the distance that could occur between the location of the actual maximum impact and the nearest modeled receptor if a receptor grid with 500 meter spacing is utilized. This is the grid spacing generally accepted by U.S. EPA for modeling. Thus, it should be consistent with modeling demonstrations made in the SIP and should provide equivalent protection of air quality.

U.S. EPA has commented that this rule should be revised to clearly indicate that it applies to TSP and SO₂ sources. The Board finds this to be unnecessary. Although this modeling exemption may be most useful to TSP and SO₂ sources, there is no need to limit the exemption in this fashion.

U.S. EPA also commented that they believe that a better "rule of thumb" for the plume height criteria of the modeling exemption in Section 202.112(a)(2) would be that emission increases must always be higher than emission decreases. Although this would generally insure greater dispersion, it would preclude reasonable use of this exemption where an increase occurred slightly lower than its off-setting decrease. It would also allow a great difference in plume heights to be exempted from modeling so long as the increase was the higher. The use of the "not significantly different" plume height criteria both provides reasonable flexibility and more accurately addresses situations in which modeling is likely to be irrelevant than does the U.S. EPA's proposed language.

It is anticipated that sources qualifying under the 250 meter exemption will be considered to fall within the U.S. EPA "Generic Bubble" guidelines. U.S. EPA has indicated that it will not require individual SIP review of ACS permits which fall within the "Generic Bubble" guidelines. (See 46 FR 20552, April 6, 1981 (Exhibit #10).) Included in those guidelines is a modeling exemption for emission sources located within a specified distance from one another (100 to 250 meters). The Board has provided the 250 meter exemption as well as the alternative exemption discussed below. It is anticipated that both should meet U.S. EPA "general bubble" guidelines.

Section 202.112(a)(3) contains an alternative exemption from the modeling requirement which allows a permit applicant to demonstrate that the differences in location, plume height, etc. are not likely to significantly affect ambient air quality. This option will enable applicants owning emission sources which are greater than 250 meters apart to demonstrate that modeling is unnecessary for their particular ACS. A permittee may need to perform limited modeling or monitoring to demonstrate that significance levels will not be exceeded. Because this exemption references the actual concern, i.e., the impact of the ACS on air quality, it need not specify distances between emission sources. This option is provided because there is controversy within U.S. EPA itself as to the appropriate distance between sources and because testimony from modelers in the record of this proceeding revealed that in certain situations distances between sources cannot be correlated to air quality impacts. It is anticipated that emission sources qualifying under this exemption will fall within current "generic bubble" guidelines and may be exempt from individual SIP review.

Impacts that are to be considered "significant" are established in Section 202.112(a)(3). These levels are taken from the U.S. EPA Emission Offset Interpretive Ruling, Appendix S to 40 CFR 51.18(k). IEPA indicated in the record that these are the significance levels they would refer to in determining whether modeling is necessary. (R. 286, 490.) (Also see Exhibit #17.) To provide an enforceable standard for all parties, these levels are included in the Board rules.

The steel companies argue that the significance levels in Section 202.112(3) should be used only to specify what is not significant, while allowing the Agency the discretion to determine that higher levels are not significant for other reasons. They argue that the fact that one or more receptor points on a modeling grid exceed threshold levels may not be conclusive evidence of a significant impact. (See p. 14-15, P.C. #26.) CBE argues that there must not be a significantly greater impact at any receptor. They argue that local monitoring sites are not necessarily the areas of greatest impact. (See p. 10, P.C. #33.) Whenever specifying criteria there is always a danger of being overly restrictive. However, the purpose of including specific criteria in this rule is to provide a quick and easily enforceable "screening test" to determine if modeling is necessary to protect the environment. It is improper to consider such a mechanism valid if it indicates no impact, but consider it questionable if it indicates some impact. The method for proving there is an error in this procedure is to provide modeling.

CBE commented that the "screening tests", which provide exemptions from modeling, should be used only where traditional stack sources are involved; that the Board should set specific modeling criteria for fugitive emissions; and that the Board should specify that emission sources use the best and most appropriate models. (See pp. 7-10, P.C. #33.) To insure that the characteristics of the emission source are considered in each of the "screening" tests, Sections 202.112(a)(1) and (2) have been modified to require such consideration. Also, Section 202.112(a) has been modified to state that all dispersion modeling must be based on the best and most appropriate models for the pollutant and emission sources involved.

USEPA drafts required that all emission points included in the ACS be within a specified distance from one another to take advantage of the "close proximity" exemption. However, the justification for this position is unclear in light of the fact that the focus of both the required modeling and the exemption is on the "emission sources" involved in a particular trade, rather than the entire ACS. (See the definition of "Emission Source," Rule 101, Chapter 2.) For example, under a given ACS sources A and B may increase emissions on the condition that source C reduces emissions to the extent necessary to offset both increases. Since the emission "trades" are between "A and C" and "B and C," any change in air quality is a function of those trades. The distance between sources which are not "trading" emission increases and decreases is irrelevant if the effect of each trade within the ACS is adequately considered.

On a related point, Illinois EPA's proposal would require dispersion modeling only for "major sources." Although the fact that a source is a major source is critical in the Major Source Review Program context (R81-16), it should not affect an ACS. This is because an ACS is based on trades between individual "emission sources" rather than entire "sources," as noted above. The correct focus in these rules is on the amount of emissions and location of the individual emission source.

VI. Baseline

The establishment of the proper emission baseline for the crediting of emission increases and reductions under an ACS was hotly debated in this proceeding. The Board's initial proposal (Exhibit 1) tracked the language of USEPA Region V's "Generic Bubble Rule" and, among other things, related the baseline determination to the data base relied on in the SIP. The initial Illinois State Chamber of Commerce proposals (Exhibits 2 and 2(a)) proposed that existing Board emission limitations or "allowable" emissions be used as the baseline for ACS determinations. The Illinois EPA (Exhibit 3) proposed that the lesser of the actual or allowable emissions be used. The second amended ISCC proposal (Exhibit 2(b)) largely adopted the approach recommended by the IEPA; however, it proposed that the definition of actual emissions

"reflect those emission levels existing prior to reductions beyond the requirements of Board regulations which resulted from the installation of pollution control equipment changes in process procedures, materials or shutdowns." To resolve this issue, it is necessary to review the purposes of P.A. 82-0540 and the underlying assumptions of the air pollution control program.

A. Statutory Purpose

The legislative intent of P.A. No. 82-0540 is stated in the findings of the General Assembly in Section 9.3(a). That section indicates an intent to authorize alternative control strategies which are "environmentally equivalent to [strategies] required by Board regulations or the terms of this Act" and "assure equivalent protection of the environment." (Section 9.3(a)).

In both their testimony and comments, industry representatives have argued that this language is an "explicit" requirement that the allowable emission limitations contained in Board regulations be used as the emission baseline for ACS permits. Far from being explicit, the statutory language does not mention emission baseline. The General Assembly did specifically state that alternative control strategies must provide protection for the environment equivalent to that which would exist under Board regulations. A strategy which is environmentally equivalent to Board regulations or emission limitations would not generally utilize the allowable emission limitation as the emission baseline. In fact, if one reads into the statute a requirement that allowable emissions be used as the emissions baseline, the statute would be internally inconsistent because it would result in environmental degradation. Testimony in the record indicated that if owners of emission sources for which actual emissions were utilized in the SIP demonstration were permitted to calculate decreases in emissions from the maximum allowable emissions limit set by Board rules, emissions would actually increase and that, as a result, several areas of the state which are currently attainment areas or unclassified areas would become non-attainment areas. (R. 201, 441-445.)

The Economic Impact Study (EcIS) supports the conclusion that defining the emission baseline as allowable emissions "would for all practical purposes, reverse the intent of many air quality regulations adopted in Illinois heretofore." (EcIS p. xiv) The study found that total allowable emissions in Illinois exceed actual emissions by 46.3% for VOC, 154.6% for TSP, and 72.4% for SO₂. (EcIS p. xiv, pp. 81-85) Use of an allowable emissions baseline would enable Illinois industries to take "paper credit" for this difference between actual and allowable emissions. Use of such "paper credits" in an ACS trade obviously results in an actual increase in emissions, rather than emission equivalence. Thus, although greater cost savings would accrue to ACS applicants by use of an allowable emission baseline, the certainty of environmental degradation resulting from the general use of an allowable emissions baseline dictates that the Board must prohibit it.

B. Lesser of Actual or Allowable Emissions as the Baseline

As aptly stated by the Agency in the record of this proceeding:

"The major focus of air pollution control efforts has been and continues to be on what is actually happening, that is, the measurement of actual pollutant levels, the assessment of who is causing or contributing to those levels, and what reductions in emissions are necessary to ensure attainment and maintenance of the national ambient air quality standards." (R. 417.)

The use of the lesser of actual or allowable emissions as the baseline to insure environmental equivalence is dictated by the language and structure of the entire air pollution control program. The Clean Air Act, the Environmental Protection Act, the Board's Rules* and the State Implementation Plan all have as their stated goal the preservation of existing air resources and the achievement of the national air quality standards. The emission baseline utilized in an ACS must be established such that attainment and maintenance of these air quality goals will not be jeopardized by emission increases projected under the ACS. Although this does not mean the emission baseline used must always be "actual emissions," it does require, as a minimum, that no emission reductions be credited under an ACS which are necessary for the achievement and maintenance of the air quality goals in Illinois.

*As stated in the earlier Opinion, the Board's existing Rule 102 of Chapter 2 is a direct prohibition on the discharge of contaminants "either alone or in combination with contaminants from other sources" which will prevent attainment or maintenance of the AQS. In the Opinion of the Board accompanying adoption of Rule 102, the Board emphasized the goal of ensuring the air quality standards:

"Because even the tightest emission standards cannot assure that emissions are clean enough to breathe, the unlimited proliferation of sources in a relatively small area could result in violations of the air quality standards even if each source met its emission standard ... [C]ompliance with the emission standards is a minimum; it is essential that whatever measures are necessary, subject to proof regarding economic reasonableness in the particular case, be taken to ensure that the air quality standards are met." (See April 13, 1972 Opinion of the Board, R71-23, p. 4-5.)

The State Implementation Plan (SIP) is the "blueprint" utilized by the State to "define the process by which air pollution goals will be achieved." (Illinois SIP, Executive Summary, p. 1.) The original emission limitations adopted by the Board in R71-23 were designed to be a component of the State Implementation Plan. Both the SIP and the Board regulations were designed to achieve and maintain the federally established AQS. (See Opinion of the Board, R71-23, p.2.) The air quality data, modeling, and projections utilized in the SIP were a part of the record in R71-23, and were relied upon in the Board's decision. (See Opinion of the Board, R71-23, pp. 2, 11, 17, 19, 27-29, 32-33, 38, 42, 44). Therefore, the data used as the basis for both the emission limitations and the SIP should provide the best available tool for determining which decreases under an ACS can be credited without disrupting the air quality program.

The SIP relied upon modeling which utilized the lesser of actual or allowable emissions for emission sources. (See, for example, SIP Volume 2, p. 721; SIP Volume 3, p. 813; and R. 198.) The Board takes notice of testimony received in the R71-23 and R74-2 proceedings which outlined the methodology relied upon in the development of the SIP and the emission limitations. (See the abstracts of these proceedings prepared by Marder and Associates (the "Marder Report"), pp. 1-28 to 1-30, 1-51 to 1-53.) Briefly, the following method was used: 1) the Federal AQS were taken as the air quality goal; 2) existing air quality data was compiled; 3) an emission inventory of Illinois emission sources was compiled; 4) growth projections were calculated for each source; 5) the air quality data, the emission inventory (with growth projections) and the proposed emission limitations were plugged into a dispersion model; 6) the model produced a graph indicating the air quality which could be expected from use of the proposed emission limitations under these specific circumstances. Simply speaking, this method used actual air quality, actual emissions (generally), and a set of projections. Actual emissions and actual background levels form the baseline for the calculation of the appropriate allowable emission limitation. Thus, to assure the environmental equivalence of ACS emissions, it is necessary, as a general rule, to utilize the lesser of actual or allowable emissions as the baseline for calculating increases and decreases which will have an equivalent effect.

C. Allowable Emissions as the Emission Baseline

Use of the allowable emission limitations as the emission baseline in ACS cannot assure achievement and maintenance of the State's air quality goals. If the allowable emission rate is substituted for actual emissions as the baseline in the modeling equation described above, either the AQS would not be met or the allowable emission limitation would differ from that in the Board regulations. The use of the allowable emission rate as the baseline in general for emission sources using this Part would simi-

larly distort the attainment equation and thus would not be environmentally equivalent to existing regulations.

It is probable that pollution would increase if allowable emissions were used as the baseline for ACS because increments of emission reductions take on an economic value under an ACS. If a banking system is eventually adopted, even emission sources which are not involved in an ACS could "bank" credit for an artificial emission reduction equal to the currently unutilized emission increment or the difference between their actual and allowable emissions. Thus, use of an allowable emissions baseline would create an economic incentive for emission sources to utilize or "bank" currently unutilized emission increments up to the maximum allowable emissions. An increase in actual pollution is inevitable under these circumstances. Such an increase would be contrary to the equivalence intended by P.A. 82-0540 and the basic concept that ACS should be neutral.

D. Mechanism for Demonstrating Equivalent Air Quality

Industry argues that an air quality analysis demonstrating equivalent air quality would provide an adequate mechanism for insuring "environmental equivalence." (See P.C. #26, #28.) This is incorrect. The very reason for having emission limitations is the fact that air quality demonstrations do not provide an adequate administrative and enforcement mechanism. Modeling and monitoring are too cumbersome and expensive to be performed on a regular basis to insure continued compliance. The administration of permits utilizing only air quality demonstrations to show environmental equivalence would be unworkable. Modeling and monitoring are also less reliable indicators with regard to the impact of a particular source or group of sources.

E. More Representative Time Period

Several witnesses in this proceeding expressed concern that businesses which are currently operating below their normal production capacity would be penalized by use of an actual emission baseline which reflected current conditions. To insure that this does not occur, the definition of actual emissions has been drafted to require the Agency to utilize a more representative time period upon finding that data from the preceding two years does not represent normal source operation. The burden of demonstrating that another time period is more representative is on the permit applicant. To clarify a point raised in the comments, "normal operations" refers to historical operations, rather than hypothetical operations. If this were not the case, a "paper" credit would exist for the increment between actual operations and hypothetical operations.

On a related point, ACS permits should retain the same degree of flexibility as a regular permit. The use of actual emissions as a baseline should not be construed as a new limitation on hours of operation or production levels. For example, an applicant may propose that emissions be calculated as a function of units of production or process weight (R. 203-205). "Process standards" such as these are currently used in Chapter 2, e.g., Rule 203. The calculations made from the baseline do not create any new prohibitions on activities which are otherwise allowable under existing permits. Contrary to the argument of one commentor, these rules do not "cap" existing emissions nor usurp business decisions. (P.C. #26.) Unlike the proposal which the Board rejected in R79-3, the ACS provisions of the Act and regulations allow businesses to voluntarily enter into agreements to trade emission increases and decreases. No business is required to do so, and business discretion is expanded, not reduced. The limitations that apply to a business that decides to utilize an ACS are 1) that equivalent protection of the environment be assured, and 2) that reductions which have been committed to "offset" ACS increases be maintained. The first limitation is required by the Environmental Protection Act; the second arises as a result of the contract existing between persons utilizing an ACS.

VII. Additional Creditable Reductions

Notwithstanding the general baseline rule, there is an inequity created by disallowing emission reduction credits for reductions achieved by virtue of pollution controls implemented at a time or in a situation where ACS were not available. Although it is impossible to resolve all inequities, Section 202.105(b) limits this inequity to the extent possible consistent with the mandate of "environmental equivalence." Section 202.105(b) creates an exception allowing emission reductions to be credited under an ACS to the extent that 1) they were achieved as a result of actions taken to reduce emissions, 2) they reduced emissions below required levels, and 3) they were not relied upon by the Agency in the compliance year demonstration under the SIP. Such emission reductions are creditable only "to the extent" that they meet the stated conditions. Thus, that portion of a reduction which is attributable to other factors or was predicted and relied upon in the SIP is not creditable. These three conditions, taken together, provide an equitable approach to crediting emission reductions which would not have been achieved but for actions taken to reduce emissions beyond what is normally required. At the same time, the condition that an emission reduction cannot have been relied on in the SIP demonstration insures that the crediting of these reductions will not interfere with the State's achievement of air quality goals. By crediting emission reductions whenever these conditions have been met, this provision should encourage owners of sources to reduce emissions as quickly as they are technologically capable of doing so.

Two commentors suggested that Section 202.105(b) be reworded to state that emission reductions are "creditable to the determination of actual emissions," rather than "creditable under an ACS." (pp. 23, P.C. #31; pp. 3, Attachment to P.C. #28.) The suggested rewording has several problems. First, the suggested language is less rather than more clear. Second, it suggests a more limited concept. Subsection (b) provides a framework for the crediting of all emission reductions, rather than simply a supplement to the computation of the actual emission baseline. An increment of emission reduction should be creditable as an emission reduction for emission sources using either an actual or allowable emission baseline, subject, of course, to the limitation in Section 202.105(b)(2) that a reduction is creditable only to the extent that it takes emissions below the requirements of Board regulations.

A. Designed to Reduce Emissions

Many of the comments received during the First Notice period focused on the prerequisites to utilization of Section 202.105(b). At least one commentor argued that the "designed to reduce emission" requirement is a "motive test" which is both inappropriate and unenforceable. (P.C. #28.) This provision was not designed to probe the permittee's intent. Rather, it was designed to insure an air quality impact equivalent to that which would have otherwise existed. Under the existing rules, many reductions occur which accrue to the benefit of the general public both in terms of cleaner air and in improving the State's margin for growth. ACS make it possible for this increment of air quality improvement to accrue to the benefit of a private operator who can offset this "naturally occurring" reduction with increases which would not otherwise have occurred. This would create a negative environmental impact which is prohibited by the statutory requirement of equivalence. However, the ACS concept is intended to allow owners and operators to benefit from the creation of reductions which would not have otherwise occurred. For example, if a piece of equipment which would normally have to be replaced after ten years is replaced after five years with cleaner, new equipment, the owner/operator has created a reduction (of five years in duration) which would not have occurred except for the purpose of creating an ERC. Although determining the purpose for which an action is taken requires individual review of the situation, it need not be a subjective decision. Furthermore, the fact that other factors (such as economic benefits) influence the decision does not necessarily mean the reduction cannot be credited. To make it clear that the creation of an emission reduction need not be the sole reason for taking the action, but must be determinative, the language of Subsection 202.105(b)(1) has been modified to allow credit for emission reductions "which would not have occurred but for the purpose of creating an emission reduction."

B. Relied Upon in the SIP

Both industrial commentators and CBE have argued that the "relied upon in the SIP" parameter is problematic. Industry argues that the SIP was never intended to be used for this purpose; that it is too vague to be referenced as a standard (e.g., categories of reductions are often relied upon); that this provision over-delegates authority to the Agency; and that, minimally, only reductions "necessary" to show attainment should be unavailable. On the other side, CBE argues that actual air quality and therefore actual emissions, not what was relied on in the SIP, must serve as the maintenance strategy in attainment areas due to the structure of the PSD increment program; that emission reductions made prior to the SIP monitoring should not be available because they were reflected in the monitored background or basis of the SIP; that uninventoried sources should be excluded from ACS permits until they are brought into the inventory; and that sources in NAA's without a SIP demonstrating attainment should not be permitted to participate in an ACS.

In its comments, the IEPA agrees that the SIP criteria is problematic, but states that it should be implementable within the administration of the permit program. The Agency states that the actions on which it has relied to predict attainment in the SIP are for the most part categorical rather than facility specific, for example: 1) reduced emissions as a consequence of improved maintenance procedures, and 2) reduced fugitive emissions through a reasonable fugitive control program. The Agency states it would also look at the assumptions underlying the SIP demonstration as reflected in ambient air monitoring or typical industrial practice, and, with regard to specific facilities, it would primarily look at the presence of equipment or control devices in the emission inventory. (P.C. #31.)

1. The SIP as A Decision-Making Standard

Recognizing the limitations of the SIP, the proposed rule does not rely on the SIP inventory for the definition of baseline emissions. As a general rule, actual emissions are to be used as the baseline. The SIP is only referenced to determine if additional emission reductions, which are claimed to have been made, were relied upon as a part of the State's air quality strategy. For example, if the SIP assumed the replacement of older equipment with newer, cleaner equipment for a particular industry and the State relied on that reduction as a part of the demonstration, the increment of reduction attributable to that action could not be used as an ACS emission reduction credit by sources in that industry. The use of the SIP that is anticipated by this rule, and that the Agency has indicated it would make, should be of a general, but verifiable, nature.

Given the fact that the SIP demonstration must include a certain margin for error in its projections, it would be unrealistic to say that only those reductions which were absolutely necessary to show attainment or maintenance should be considered to have been "relied upon." (See P.C. #26.) However, the burden of proof with regard to reliance in the SIP is on the Agency.

At least one commentor argues that the reference to the reductions relied upon in the SIP in Section 202.105(b)(3) represents an illegal delegation to the Agency of the authority to establish emission control requirements that are more stringent than the Board's regulations. (P.C. #26.) In Commonwealth Edison Co. v. Pollution Control Board, 343 N.E. 2d 459, 461 (1976), the Illinois Supreme Court upheld a Board rule authorizing the Agency to make case-by-case determinations altering the otherwise applicable air quality requirements in accordance with the Board-prescribed standards of "justified by necessary economic and social developments and will not interfere with or become injurious to human health or welfare." Section 202.105(b)(3) contains several similar and, in fact, more definite standards. Specifically, a reduction must have been 1) "relied upon," 2) "in the State Implementation Plan" (which is a fixed and verifiable public document), and 3) "to demonstrate compliance with the ambient air quality standards" or "maintenance of air quality." Section 202.105(c) provides additional insurance that the Agency's case-by-case determinations follow the prescribed standard by placing the burden of proof on this issue on the Agency. Lastly, all Agency permit determinations are reviewable by the Board under Section 40 of the Environmental Protection Act. As written, Section 202.105(b)(3) provides both specific standards and procedural safeguards adequately limiting Agency discretion.

U.S. EPA commented during the First Notice period on the Final Rule that Section 202.105(c) should be rewritten to make it clear that the Agency must demonstrate that an ERC was not relied on in the SIP in order to approve the permit, rather than demonstrate that an ERC was relied upon in order to disapprove it. To clarify the Agency's responsibility to make a determination with regard to reliance in the SIP, rather than allow the possibility that a permit could issue with no evidence on this point, the second sentence of Section 202.105(c) has been changed to read as follows: "However, for the purpose of subsection (b)(3) it shall be the responsibility of the Agency to demonstrate that the SIP demonstration either did or did not rely upon the emission reduction in question, whether from the particular emission source or the category to which it belongs." Although U.S. EPA suggests that a "factual showing" be required, it is unclear what is meant by a "factual" showing with regard to predictions made in the SIP. The required "demonstration" should serve the same function.

2. Compatibility With PSD Program

CBE argues that the additional creditable reductions referred to in Section 202.105(b) should not be available to emission sources located in attainment areas because actual emissions form the baseline for the PSD increment program. If an industry took steps to improve air quality beyond the "maintenance" level reflected in the SIP, that increment of reduction would be added to the growth increment for new industry under the PSD program. Therefore, there is no apparent inconsistency in providing that such a reduction can be used for ACS purposes under these rules. The PSD rules were not intended to favor new industries over existing industries, but simply to insure a margin for growth. As written, the proposed rule for additional creditable reductions contains adequate safeguards for maintenance of a growth increment. Of course, a single emission reduction cannot be "double-counted" or used both to offset new growth and ACS increases. This "double-counting" is prohibited by Section 202.111(b) and the Standards of Issuance.

On a related point, several commentors have pointed out that both the Environmental Protection Act and the Federal Clean Air Act require maintenance of air quality, as opposed to just attainment of the AQS, in attainment or clean areas. One of the standards of issuance, Section 202.120(b), states that the impact of an ACS must be environmentally equivalent to that which would otherwise be achieved and maintained. However, the former proposed Section 202.105(b)(3) referenced only compliance with the AQS and could be interpreted as allowing all attainment area sources to utilize an "allowable" emissions baseline. This was not the Board's intention. To remedy this, Section 202.105(b)(3) has been amended to reference "maintenance of air quality" for areas other than non-attainment areas (i.e., attainment and unclassified counties).

3. Uninventoried Sources and Emission Levels Used in the SIP

Monitored and modeled background emission levels form the basis of the SIP. Therefore, emission reductions achieved prior to or at the time of such monitoring are included in the SIP and must be considered to have been "relied upon" to project attainment or maintenance. Also, although not individually identified, the existence of a certain number of malfunction emissions and uninventoried sources are presumed in the SIP calculations. Projected emissions from these sources have been included in the monitored background levels. (R. 373) While these projections may be inexact, the margin of error is limited by the fact that most large emission sources are likely to have been inventoried. An uninventoried source should be considered subject to the same categories of "relied upon" reductions as are similar inventoried sources.

4. NAA's for Which the SIP Does Not Demonstrate Attainment

CBE points out that there is at least one NAA in Illinois (Southeast Chicago) for which the State has failed to specify and commit to controls which will bring that area into attainment (of the TSP AQS) by the deadlines mandated in the Clean Air Act. CBE argues that emission reductions made in these areas should not be allowed to be used in ACS because they are needed for the attainment demonstration. This argument implies that these emission reductions would exist if the ACS were not available. But, to the extent that an ACS permit is based on an "actual" emission baseline, it would always involve the creation of a new emission reduction which would not have occurred but for the ACS. Thus, an ACS based on actual emissions would not "usurp" ERC's which would otherwise be available for the SIP demonstration. In fact, the availability of ACS in such a NAA may enable sources that are currently unable to reduce emissions at one emission source to over-control another emission source to come into compliance. This could speed the attainment of the AQS for the area.

If further reductions are needed in an area to show attainment by mandated deadlines, substantive regulations requiring those reductions will be applicable to ACS permittees just as they are to other permittees. (R. 356, 492.) Under Section 202.105(a), the emission baseline is the "lesser of the actual emissions or the allowable emissions prescribed by this Chapter." Thus, if the allowable emission limits are made more stringent, the emission baseline for ACS permits is reduced and the ACS permit must be revised pursuant to Section 202.160(a)(2). An example of such an emission limitation would be future RACT requirements. CBE is correct in stating that the control obligations for ACS participants cannot be regarded as fixed any more than the obligations of other permittees are fixed. (See Rule 103(g) of Chapter 2 re: the Agency's authority to revise permits upon the revision of the Act or Chapter 2 regulations.)

A unique problem does arise, however, if an ACS participant in a NAA which does not have a SIP demonstration proposes to utilize an emission baseline which includes credit for reductions above its actual emissions pursuant to Section 202.105(b). The difficulty is that no SIP demonstration exists for such an area and, therefore, the condition in Section 202.105(b)(3) cannot be complied with. Absent a SIP demonstration, the reductions which are required for attainment have not been identified and thus "surplus" reductions that are not necessary to assure attainment cannot be identified. To clarify this and insure that ACS permits do not create an actual increase in emissions in an area that is known to have unhealthy air, Section 202.105(d) has been added to indicate that an emission reduction shall be creditable beyond the baseline in subsection (a) only if the State Implementation Plan demonstrates attainment for the area and pollutants involved by the compliance year.

C. Emission Reduction Credits from Shutdown Emission Sources

The proposal for the Interim Rule did not address the use of emission reduction credits obtained from the shutdown of an emission source because the Board felt that the issue had not been adequately discussed in the record. However, comments received during the First Notice Period indicate that a clarification of the applicability of the interim rule to shutdowns is necessary. Some of the arguments presented for crediting reductions from shutdowns are that they represent a large number of available emission reduction credits; that several industries have relied on the availability of these credits; and that to disallow these credits would create an incentive for keeping older, dirtier plants and lines in service longer. One commentor argues that owners of emission sources have a property "right" to the emission increment and that State denial of the use of this increment is an unconstitutional "taking" of property. (P.C. #26.) Another commentor argues that reductions from a shutdown should be creditable only if the plant or line is shut down before the end of its expected life and that such reduction credits should be limited in duration to the difference in time between its actual shutdown and its expected life. (P.C. #32.)

In response to these comments, Section 202.105(b)(1) in the Interim Rule was amended to include shutdowns. An emission reduction created by the premature shutdown of an emission source is not essentially different from that created by the modification of process, materials, etc. The duration of an ERC created by a shutdown is determined by the duration of the ACS permit, as is the duration of any other emission reduction credit. The fact that an emission source is permanently shut down does not mean it creates a permanent ERC. Rather, an emission reduction credit **is available only** in the context of the Board's permit rules and from permitted emission sources. If a source is prematurely shut down in order to create an emission reduction credit, that emission source may be issued a "zero-discharge" ACS permit. Section 202.145 in the Interim Rule was also amended to indicate that the duration of a permit and its renewability is linked to the life expectancy of the emission source. This is essential in order to preserve the "environmental equivalency" of the ACS over time. For example, if a product line is shut down three years early, under its "zero discharge" permit, its ERC can be used to offset emission increases for three years. If it is shut down ten years early, it can participate in a five year ACS permit and renew the permit for an additional five years. When the lifetime of the emission source is exhausted, the ERC is also exhausted and the ACS permit must be revised. The burden of proving the useful life of the emission source is on the applicant.

The economic impact study (EcIS) reviewed and quantified the annual cost-savings and environmental effects attributable to the general useful life limitation. The study projected that elimination of the useful life limitation would increase cost savings in 1988 by \$11.8 (low estimate) to \$16.1 million (high estimate). However, it also found that the useful life limitation would avoid air quality degradation in 5 major urban areas, thereby reducing damage to public health and the environment in 1988 by \$6.7 (low estimate) to \$33.4 million (high estimate). (See EcIS pp. xvi-xvii, pp. 86-104, and pp. 105-126). Although the specific conclusions which can be drawn from the estimates made in the EcIS must be qualified by the uncertainties surrounding many of the assumptions made therein, the study does document air quality degradation which would occur absent the useful life provision. This, in itself, affirms the necessity of the useful life limitation to achieving the statutory requirement of "environmental equivalence." Even if the cost savings associated with elimination of this provision outweighed the consequent environmental damage, the Board is not at liberty to eliminate a provision which is necessary to insure environmental equivalence.

After reviewing testimony and comments generated in the proceeding on the Final Rule, the Board in this Docket A, has limited the duration of an emission reduction credit contributed by a shutdown emission source to its useful life but "no more than five years." The Board notes that it is not the purpose of these rules to create an ERC which "lives on" beyond the emission source itself, indefinitely preserving the right of the existing level of pollution. Rather, the availability of an ACS should provide one more incentive to shut down a marginal emission source in favor of a more innovative or cleaner alternative. The five year maximum is used because this coincides with the duration of ACS and other operating permits. (See Rule 103(b)(8).)

The Board finds that specifying a maximum lifetime for an ERC generated by a shutdown, although admittedly inequitable for some emission sources, is a reasonable temporary solution to eliminating administrative difficulties in determining useful life until the proposal to amend this section contained in Docket B can be considered and refined in light of public comment. (See Opinion and Order of the Board, Proposed Rule, First Notice, R81-20, Final Rule, Docket B, June 2, 1983.) That proposal suggests a more flexible and equitable approach to determining useful life, while retaining the requirement that a definite duration be established for ERC's generated by shutdowns. It also delineates minimum considerations in determining useful life. This more flexible approach is suggested by comments and testimony generated by the March 7 and 11, 1983 hearings. However, comment on the specific language proposed, as well as compliance with APA procedures, are necessary before this language can be adopted.

The Board finds that there will be no harm in adopting in Docket A the 5-year maximum limit on useful life until such time as it can be amended. Any ACS applicant adversely affected by this provision may request reconsideration of an unduly limited useful life determination under the new provision. (The revised provision is anticipated to be promulgated within 3-4 months.)

In the Final Rule, the Board has also attempted to clarify that it is the period or increment of useful life which is the limitation, not when it is used. Thus, an ERC with a five year life may possibly be "banked" for several years (presuming the existence of ERC banking rules) and still retain its full five year value.

VIII. Compliance Dates

Section 202.130(a) provides that sources utilizing an Alternative Control Strategy generally must meet the same compliance deadlines which are otherwise required by Chapter 2. The term "as expeditiously as practicable" is intended to indicate that sources which can achieve compliance before the stated deadline are required to do so.

Section 202.130(b) provides an exception to the general rule for sources which are subject to certain portions of Rule 205 of Chapter 2 (VOC emissions). This exception is consistent with Section 172 of the Clean Air Act, as amended in 1977, which allows states to extend the compliance date for attainment of the ozone standard until December 31, 1987. The record in the early part of this proceeding was replete with testimony to the effect that many RACT I sources which would otherwise be eligible to utilize an alternative control strategy would be precluded from doing so in the absence of such an extension due to the complexity of preparing and setting up an Alternative Control Strategy before applicable December 31, 1982 compliance deadlines. (See R. 2930, 40, 4953, 5960, 87.) Early comments also pointed out that if the ACS permit actually had to be issued before December 31, 1982, there would be very little time for application review. Therefore, the rule requires that the complete application must have been submitted prior to that date.

The Board realizes that if precluded from utilizing an ACS, many of these sources would be forced to purchase more expensive controls to achieve the same emission reductions. Such a result would be contrary to the intent of P.A. 820540, and would result in injury to the Illinois economy without yielding significant environmental benefits. However, Section 202.130(b) is intended to provide a narrow exception to the general rule, and is not intended for use by sources which have adequate time to meet applicable compliance deadlines. The Board has tailored standards for the issuance of ACS permits containing alternative compliance plans to insure that this exception is no broader than absolutely necessary. To fall within this limited exception, the compliance

plan must be contained in an Agency approved permit which is applied for before December 31, 1982, and be subject to the Agency's public participation procedures. To approve such a plan the Agency must find that an extension is genuinely necessary, environmentally beneficial, and consistent with the Clean Air Act.

In determining the necessity for extending the compliance deadline, the Board anticipates that the Agency will consider factors such as the complexity of the proposed ACS, the time required for equipment purchase and installation, and the good faith efforts of the permittees to implement the ACS as quickly as possible. In addition, the Agency must find that the ACS will result in a net benefit to the environment, either in terms of faster or greater emission reductions than would otherwise be achieved. Finally, the requirement of "consistency with the Clean Air Act" requires the Agency to find, among other things, that reasonable further progress "toward attainment of the ambient air quality standard" is not jeopardized.

The Agency points out that the compliance dates for many sources subject to Rule 205 of Chapter 2 have already passed. (See Rule 205(j).) The extension provision is not intended to protect emission sources which are in violation of applicable compliance deadlines. Therefore, the extension provision has been modified to make it clear that it applies only to emission sources with compliance deadlines of December 31, 1982 or later.

One commentor argues that the condition in Section 202.130(b)(2), that the ACS result in greater or faster over all emission reductions, is more restrictive than the Federal Clean Air Act because U.S. EPA's position papers have only applied this prerequisite to compliance extensions for sources in non-attainment areas. (P.C. #28.) This argument is convoluted in several respects. First, it overlooks the fact that U.S. EPA's position papers on this topic are merely guidance and do not rise to the level of a requirement under the Clean Air Act. Second, it overlooks the fact that Illinois emission sources in both attainment and nonattainment areas are subject to Rule 205 requirements and compliance deadlines. If anything, Section 202.130 relaxes existing requirements for emission sources in attainment areas. The function of the requirement in Section 202.130(b)(2) is, as stated in the proposed opinion, to "offset" the delay in emission reductions and to insure that the ACS provisions do not become an avenue for avoidance of existing deadlines.

In response to another related comment, it is not inconsistent to expect that faster overall emission reductions may be achieved by use of an ACS containing a delayed compliance schedule than might otherwise be achieved. (See P.C. #31.) If, for example, a source could not otherwise meet the applicable compliance deadline and would require an individual variance, an ACS may provide a faster achievement strategy.

Although the December 31, 1982 application deadline has passed as of the date of this Opinion and Order, the language with regard to compliance date extensions (Section 202.130(b)) is retained in the Final Rule for the protection of any parties who may have such a delayed compliance ACS application pending.

IX. "Generic Bubble Determination"

These rules will be reviewed by U.S. EPA for compliance with the federal "Generic Bubble" policy. As stated above, the "Generic Bubble" policy defines a type of relatively simple ACS which U.S. EPA has determined will not require individual SIP revisions. Although several provisions of these rules go beyond the current approved U.S. EPA policy, it is the function of these rules, as a whole, to provide a framework for all ACS, not just simple "Generic Bubbles." Rather than attempt to anticipate changes in U.S. EPA policy on an issue over which the State has no jurisdiction, the Board is promulgating the rule as a whole and will allow U.S. EPA to designate those portions which meet their requirements for Generic Rules. For example, these rules make a general provision for fugitive emission sources to participate in ACS. U.S. EPA may designate the specific type of fugitive emission trades which fall under their "Generic Bubble" policy. ACS falling within those designated provisions will not require individual SIP revisions.

X. Severability

Section 202.190 has been added to the rules stating that the provisions of Part 202 are not severable. This provision is essential due to the interdependence of emission sources operating under ACS, the careful balancing of emission increases and decreases which is necessary to insure environmental protection, and the interdependence and balance within the rules themselves.

XI. Miscellaneous Revisions to the Rule

The following miscellaneous revisions to the rule were made in response to comments received during the First Notice Period on the Final Rule:

1. The definition of "Actual Emissions" has been slightly amended in the final version of the rules. To close a potential "loophole" in Subsection (b), the term "allowable emissions" has been replaced with "potential to emit." A rule requiring use of the allowable emission baseline where there is inadequate information to determine actual emissions would provide a disincentive for good bookkeeping. The use of "potential to emit," a defined term, will also more accurately reflect the capacity of the particular equipment to emit. The same standard can be used for sources which have been in operation less than two years, thus subsection (c) has been deleted as unnecessary.

2. Section 202.102 has been amended to clarify the fact that all emission sources are within the scope of this Part.

In response to a U.S. EPA comment, Section 202.110(f) has been amended in the Final Rule to require that an ACS emission source which is the subject of a federal notice of violation (as well as those subject to federal enforcement actions) send a copy of the ACS application to U.S. EPA.

3. Section 202.125 (Public Participation) has been amended to clarify the standard for when a public hearing is required. The availability of a public hearing should be determined pursuant to the criteria in applicable Agency public participation procedures, rather than pursuant to a potentially conflicting Board criteria. Contrary to the argument of one commentor, ACS permits do not establish less stringent emission limitations and public hearings may not be necessary or beneficial in all cases.

4. Section 202.170 (Revocation) has been deleted as unnecessary because both the Act and Chapter 2 currently provide for permit revocation and other appropriate sanctions.

5. Section 202.211(d) has been deleted as unnecessary.

The full text of this final Opinion and Order will appear in the Board's printed Opinion volumes. The proposed Opinion and Order of the Board and Mr. Dumelle's Concurring Opinion dated December 2, 1982 will be retained in the files of the Clerk and will continue to be available for inspection and copying, but will not appear in the Opinion volumes.

ORDER

It is the Order of the Illinois Pollution Control Board that Chapter 2: Air Pollution Regulations be amended by the addition of Part 202: Alternative Control Strategies, as follows:

TITLE 35: ENVIRONMENTAL PROTECTION
 SUBTITLE B: AIR POLLUTION
 CHAPTER I: POLLUTION CONTROL BOARD
 SUBCHAPTER A: PERMITS AND GENERAL PROVISIONS
 PART 202: ALTERNATIVE CONTROL STRATEGIES

SUBPART A: ALTERNATIVE CONTROL STRATEGIES INVOLVING ONE PERSON

Section 202.101 Definitions

Unless a different meaning of a term is clear from its context, the definitions of terms used for this Part shall be the same as those used in the Pollution Control Board Rules and Regulations, Chapter 2: Air Pollution.

Actual Emissions: The actual rate of annual emissions of a pollutant from an operational emission source for a particular date equal to the mean rate at which the emission source actually emitted the pollutant during the two-year period which immediately precedes the particular date and which is determined by the Agency to be representative of normal emission source operation; however:

- a) The Agency shall allow the use of a different time period upon a determination that it is more representative of normal emission source operation. The burden shall be on the applicant to demonstrate that another time period is more representative. Actual emissions shall be calculated using the emission source's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
- b) If the Agency determines that there is inadequate information to determine actual emissions as indicated in the preceding paragraphs, the Agency shall use the potential to emit of the emission source.

Allowable Emissions:

- a) The emissions rate of an emission source calculated using the maximum rated capacity of the emission

source (unless the emission source is subject to permit conditions or other enforceable limits which restrict the operating rate, or hours of operation, or both) and the more stringent of the following:

- 1) the applicable emission standard or limitation contained in this Chapter, including those with a future compliance date; or
 - 2) the emissions rate specified as a permit condition including those with a future compliance date.
- b) The allowable emissions may be expressed as a permit condition limiting annual emissions or material or fuel throughput.
 - c) Allowable emissions shall include a reasonable estimate of emissions in excess of applicable standards during start-up, malfunction, or breakdown, as appropriate, only if the provisions of Rule 105 of this Chapter have been complied with.
 - d) If an emission source is not subject to an emission standard under provision (a) and is not conditioned pursuant to provision (b), the allowable emissions shall be the source's potential to emit.

Alternative Control Strategy (ACS): A specific program of emissions limitations and requirements which is environmentally equivalent to that which would otherwise be required by applicable statutes or regulations, and under which the owner or operator of an emission source increases emissions of a regulated pollutant beyond the emission baseline at one or more emission sources and correspondingly reduces emissions of the same pollutant below the emission baseline at other emission sources.

Chapter: References to "this chapter" or "Chapter 2" in this Part shall mean Pollution Control Board air pollution rules and regulations as contained in Chapter 2: Air Pollution Regulations and as codified under Title 35, Part 200, et seq., of the Illinois Administrative Code.

Emissions Baseline: The starting point or reference level from which increases and decreases in emissions are measured. The rules governing determination of emission offsets, calculation of net emission increases, and evaluation of alternative control strategies specify the particular emission baseline that applies for that purpose.

Multi-person ACS: An Alternative Control Strategy which includes emission sources which are owned and controlled by different persons who have formed a joint venture for purposes of the ACS.

Potential to Emit: The maximum capacity of an emission source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

ug: Micrograms.

Section 202.102 Scope

Pursuant to a permit issued by the Agency under this Part, a person or persons may use an alternative control strategy (ACS) for emission sources, including fugitive emission sources, in lieu of compliance with conflicting requirements which would otherwise be applicable under this Chapter.

Section 202.105 Emission Baseline for Alternative Control Strategies

- a) The baseline for reviewing decreases or increases of emissions from emission sources which are the subject of an alternative control strategy shall be the lesser of the actual emissions or the allowable emissions prescribed by this Chapter.
- b) Notwithstanding subsection (a), an increment of emission reduction shall be creditable under an ACS to the extent that it:
 - 1) was achieved as a result of the installation of pollution control equipment, changes in process, procedures, or materials, or the shutdown of an emission source which would not have occurred but for the purpose of creating an emission reduction;
 - 2) reduced emissions beyond the requirements of Board regulations; and
 - 3) was not relied upon in the State Implementation Plan demonstration to demonstrate compliance with ambient air quality standards in the compliance year in non-attainment areas or maintenance of air quality in other areas.
- c) For purposes of subsection (b), the burden shall generally be on the permit applicant. However, for

~~the purpose of subsection (b)(3) the burden shall be on the Agency to demonstrate that the emission reduction in question (from either the particular emission source or the category of emission sources to which it belongs) was relied upon in the SIP demonstration~~ it shall be the responsibility of the Agency to demonstrate that the SIP demonstration either did or did not rely upon the emission reduction in question, whether from the particular emission source or the category to which it belongs.

- d) Notwithstanding subsection (b)(3), if an emission source is located in an area for which the State Implementation Plan does not demonstrate attainment of the air quality standards by the compliance year for the pollutant which is the subject of the ACS, it may utilize an emission reduction credit only to the extent that that reduction reduces its emissions below actual emissions.

Section 202.110 Permit Application Information

In addition to other information which may be required under this chapter, a permit application under this subpart shall:

- a) List the emission sources to be included in the ACS, the emission baseline the applicant believes to be applicable to each emission source, and the remaining useful life of each emission source.
- b) Describe the proposed modifications to the emission sources and quantify the emission increases and decreases anticipated to occur as a result of each modification.
- c) Identify the Board regulations and the terms of the Environmental Protection Act to which the applicant believes the ACS provides an alternative.
- d) Describe the methods currently used to assure compliance and the methods proposed to be used under the ACS. Such methods may include, but are not limited to recordkeeping, equipment or emissions monitoring, source testing, and material or process specifications.
- e) Provide an analysis of the ACS pursuant to Sections 202.111, 202.112, 202.113.
- f) Contain a certification, signed by all ACS applicants, stating that a copy of the ACS application has been sent by certified mail to U.S. EPA if any of the emission sources included in the ACS are presently the subject of a federal notice of violation or federal enforcement

actions under the provisions of the Clean Air Act, as amended August, 1977 (including civil actions filed under §113(b), criminal actions filed under §113(c), a notice imposing non-compliance penalties issued under §120, administrative orders issued under §113(a), or a citizen suit filed under §304 where EPA has intervened).

- g) Provide such other information as the Agency can demonstrate to be necessary for the determination of compliance with the standards of issuance in Section 202.120, including the results of any source tests or ambient air monitoring.

Section 202.111 Analysis of Emissions

- a) A permit application under this subpart shall provide a comparison of the baseline emissions and the emissions which would be permitted under the proposed ACS for each emission source involved in the ACS. Where appropriate, this analysis shall address differences between the emission sources to be covered by the ACS with regard to:
 - 1) methods of determining emissions;
 - 2) consistency and reliability of the performance of the emission sources and any associated control devices;
 - 3) frequency and duration of operation during malfunction or breakdown, or excess emissions during start-up;
 - 4) methods of operation, including operating schedules, range of raw materials or products, etc.; and
 - 5) other characteristics of the emission sources or their operation which may affect equivalence of emissions.
- b) The analysis shall describe any increases in emissions from emission sources outside the ACS which may accompany the proposed ACS.

Section 202.112 Analysis of Environmental Quality

- a) A permit application under this subpart shall provide a comparison of the ambient air quality under existing

requirements and the ambient air quality which would exist under the proposed ACS. This analysis shall include dispersion modeling based on the best and most appropriate models for the pollutant and emission sources involved, unless the Agency finds that:

- 1) due to the characteristics of the pollutant and emission source, dispersion modeling is inappropriate or unnecessary for determining effects on air quality; or
- 2) the location of emission sources included in the ACS are not more than 250 meters apart, the effective plume height of the emission increases and decreases are not significantly different and the differences in the characteristics of the emission sources are not likely to affect ambient air quality, or
- 3) differences in location, plume height, operating practice, and other characteristics of the emission sources subject to the ACS are not likely to significantly affect ambient air quality. An effect on ambient air quality is significant if it equals or exceeds the levels specified in the following table:

SIGNIFICANCE LEVELS

<u>Pollutant</u>	<u>Annual</u>	<u>24-Hour</u>	<u>8-Hour</u>	<u>3-Hour</u>	<u>1-Hour</u>
SO ₂	1.0 ug/m ³	5 ug/m ³		25 ug/m ³	
TSP	1.0 ug/m ³	5 ug/m ³			
NO ₂	1.0 ug/m ³				
CO			0.5 mg/m ³		2 mg/m ³

- b) The applicant shall analyze the air quality impacts resulting from trades between emission sources, including the impact of emissions which differ in their qualitative impact on health or the environment.
- c) The analysis shall describe any other impacts on the environment which may accompany the proposed ACS.

Section 202.113 Analysis of Methods of Assuring Compliance
 A permit application under this subpart shall provide a comparison of the methods of assuring compliance under existing requirements and the methods of assuring compliance which would be used under the proposed ACS. As a minimum, the analysis shall address the effectiveness, reliability, and accessibility of these methods.

Section 202.120 Standards for Issuance

The Agency shall issue a permit containing an ACS if, and only if, the permit applicant demonstrates that:

- a) The ACS provides, in the aggregate with respect to each regulated pollutant, equivalent or less total emissions than would otherwise be required.
- b) The impact of the ACS is environmentally equivalent to that which would otherwise be achieved and maintained under existing requirements.
- c) The methods for assuring compliance with the conditions and requirements of the permit under the ACS are equivalent to those that are associated with otherwise applicable requirements.
- d) The ACS complies with any applicable requirements contained in Parts IX, X, or XI of this chapter.
- e) U.S. EPA has not disapproved the proposed ACS or any compliance schedule it may contain due to the existence of a federal enforcement action pending against a participant in the ACS.
- f) The ACS does not permit an increase in emissions of any pollutant which is listed or regulated pursuant to Section 112 of the Federal Clean Air Act, as amended August 1977 (42 U.S.C. 1857, et seq.).

Section 202.125 Public Participation

The initial issuance of a permit containing an ACS shall be subject to applicable Agency public participation procedures prior to issuance. At a minimum, the Agency shall provide an opportunity for public comment.

Section 202.130 Compliance Dates

- a) No owner or operator subject to a permit utilizing an Alternative Control Strategy is relieved of the responsibility for achieving and maintaining a reduction of emissions as expeditiously as practicable, but not later than the compliance date required under other applicable regulations.
- b) Notwithstanding subsection (a), an owner or operator may demonstrate compliance with Rule 205 of this Chapter pursuant to an Agency-approved alternative compliance plan contained in a permit utilizing an Alternative Control Strategy which is applied for prior to December 31, 1982. The Agency shall approve such an alternative compliance plan if, and only if, the applicant demonstrates that:

- 1) the alternative compliance plan extends the compliance date for each emission source subject to the ACS no longer than necessary to enable that emission source to utilize the ACS, but in no case later than December 31, 1987;
- 3) the emission source belongs to a category of emission sources having a compliance date of December 31, 1982 or later under Rule 205;
- 3) the use of an ACS will result in either greater or faster overall emission reductions than would otherwise be achieved; and
- 4) such extension is consistent with the requirements of the federal Clean Air Act, as amended in 1977.

Section 202.140 Records and Reports

- a) The Agency shall require that a permittee operating under an ACS maintain such records as necessary to determine compliance with the requirements of the ACS.
 - 1) These records shall include, but not be limited to the actual and allowable emission rates, or the parameters from which these rates are determined or related operational parameters of the equipment.
 - 2) The records shall be maintained as prescribed in the permit.
 - 3) These records shall be available to the Agency and copies of these records shall be sent to the Agency upon written request. The Agency shall make such records available to the public pursuant to Sections 7 and 7.1 of the Act and regulations promulgated hereunder.
- b) A permittee operating under an ACS shall submit to the Agency reports containing such reasonable information and at such reasonable frequency as the Agency may specify pursuant to a condition of a permit or general procedures established by the Agency, to assure that the terms of the ACS are met.
- c) A permittee operating under an ACS shall notify the Agency within 72 hours by telephone or telegram of circumstances, which will make compliance with the requirements of the ACS impossible.

- 1) This notice shall be followed within ten days by written confirmation which describes the circumstances which prevent compliance with the requirements of the ACS and supplies a preliminary Compliance Program which will result in compliance with this Chapter.
- 2) The permittee shall take all reasonable steps to come into compliance with the ACS or this Chapter as expeditiously as possible.

Section 202.145 Duration

A permit containing an ACS shall be issued for no longer than five years, or for such shorter period as the Agency may specify as necessary for periodic review of the ACS or to accomplish the purposes of the Act or of this Chapter. However, an ACS permit may not be issued for a period ~~extending beyond~~ of time which is greater than the useful life of an emission source which contributes an emission reduction to the ACS. The burden of proving the useful life of the emission source is on the applicant. For the purpose of this section, a shutdown emission source shall be deemed to have a useful life of no more than five years.

Section 202.150 Permit Conditions

- a) The permit shall specify:
 - 1) All emission limits which apply to emission sources under the ACS, and
 - 2) Any compliance procedures which shall be followed by the permittee.
- b) The permit may be conditioned so that compliance with the terms of the ACS will continue in the event of change of ownership of emission sources, and such terms will be made applicable to the new owner.
- c) The Agency may impose such other permit conditions in a permit as are necessary to accomplish the purposes of the Act or of this Part.

Section 202.155 Monitoring and Testing

The Agency may require that equipment testing and monitoring, as authorized elsewhere in this chapter, accompany the construction or operation of emission sources under a permit containing an ACS.

Section 202.157 Notification to U.S. EPA
Upon issuance of an ACS permit, the Agency shall notify U.S. EPA of emission limitations, alternative compliance plans, and any other permit conditions applicable to emission sources under an ACS.

Section 202.160 Revision

- a) Timing
 - 1) An application for revision of a permit containing an ACS shall be submitted at least 180 days prior to the date on which the revision is required to go into effect.
 - 2) If the standard under this Chapter for an emission source included in the ACS is changed and a revised ACS is being proposed, an application for revision of a permit containing the ACS shall be submitted at least 90 days prior to the date a Compliance Plan must be submitted.
- b) The applicant shall submit the information specified in Section 202.110 which is necessary to show that the revised ACS will meet the standards of permit issuance specified in Section 202.120.
- c) Unless the Agency finds that the proposed revisions to the ACS are not substantive in nature and do not alter fundamental details of the ACS which was approved under the prior permit, issuance of the revised permit shall be subject to public participation pursuant to Section 202.125.

Section 202.165 Renewal

- a) An application for renewal of a permit containing an ACS shall be submitted at least 180 days prior to the expiration of the previous permit.
- b) Applications for renewal shall contain the information specified in Section 202.110. However, an analysis of the effect of the ACS on air quality pursuant to Section 202.112 need be provided only if:
 - 1) The other information submitted pursuant to this Subsection is different from the information upon which the permit was previously issued, and
 - 2) the differences may include a change in the applicable emission limit or operation of the source or may otherwise significantly affect air quality.

- c) Unless the Agency finds that changes in the application are not substantive in nature and do not alter fundamental details of the ACS which was approved under the prior permit, renewal of the permit shall be subject to public participation pursuant to Section 202.125.

Section 202.190 Severability

Notwithstanding Rule 113 of this Chapter, if any provision of Part 202 is stayed or declared invalid by a final order, no longer subject to appeal, of any court of competent jurisdiction, then the entirety of Part 202 shall be deemed stayed or invalidated until the stay is lifted or the Board acts to revalidate the Part.

SUBPART B: ALTERNATIVE CONTROL STRATEGIES INVOLVING MORE THAN ONE PERSON

Section 202.201 Applicability

Persons who propose or participate in a multi-person ACS shall be subject to the rules found in Subparts A and B of this Part.

Section 202.202 Permit Application

In addition to the information required in Section 202.110, persons who propose a multi-person ACS shall:

- a) Identify the persons having ownership and control of the emission sources to be included in the ACS.
- b) Provide a written agreement showing the participants' intent to pursue the multi-person ACS and to be jointly bound by the terms and conditions of any permits which are issued pursuant to the application.

Section 202.204 Duration

All permits issued under a multi-person ACS shall have the same expiration date.

Section 202.206 Permit Conditions

Each participant in a multi-person ACS shall be issued an individual permit which shall be conditioned on the continuing compliance of the other participants with the limitations in their permits.

Section 202.208 Records and Reports

All records and reports of the participants in a multi-person ACS which are not confidential in nature shall be available for inspection to the other participants upon reasonable notice of a request to inspect.

Section 202.210 Revocation

Permit revocation or other sanctions may be initiated before the Board against any and all persons in the multi-person ACS, regardless of the ownership and control of the emission source at which the violations occurred or any contracts or other agreements between the participants.

Section 202.211 Termination

- a) If a participant in a multi-person ACS intends to terminate involvement in the ACS, it shall give written notice to the Agency and the other participants in the ACS at least 180 days prior to the anticipated termination date.
- b) If the ACS will not meet the standards of issuance with only the remaining participants, they may:
 - 1) Propose a revised ACS to include the remaining sources and persons; this proposal shall be submitted to the Agency at least 120 days before new permits are required; or
 - 2) Apply for revised permits, pursuant to the otherwise applicable regulations in this Chapter; such applications shall be submitted at least 90 days before the permits are required.
- c) If the notice of termination of the multi-person ACS does not allow sufficient time to meet the time periods in Subsection 202.211(b) above, the participants may seek variance relief from the Board from the requirements of this Chapter and of the Act.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order were adopted on the 2ND day of June, 1983 by a vote of 4-0.