ILLINOIS POLLUTION CONTROL BOARD
February 17, 1971

ENVIRONMENTAL PROTECTION AGENCY	)	
v.	)	#70-4
COMMONWEALTH EDISON CO.	)	

Opinion of the Board (by Mr. Currie):

This is an enforcement proceeding seeking a cease and desist order against further violation of the Environmental Protection Act and of the regulations with regard to air pollution from the Joliet electric generating station of Commonwealth Edison. We find certain violations have occurred and order that they not be repeated, as described below.

The Agency's second amended complaint, on which the case was tried, alleges the following violations: (1) the emission of smoke darker than # 1 on the Ringelmann chart from stack #1 of the Old Joliet station on July 28, July 30, and October 27, 1970, in violation of Rule 3-3.122 of the Rules and Regulations Governing the Control of Air Pollution; (2) the emission of particulate matter from the Old Joliet station since July 1, 1970, in excess of the limits prescribed by Rule 3-3.112 of those Rules;[1] and (3) causing, threatening or allowing air pollution by emissions from the Old Joliet station in violation of section 9(a) of the Environmental Protection Act, since July 1, 1970.

Edison raised a number of preliminary questions. First, the company moved to dismiss the complaint on the ground that sections 30 and 31 of the Act require the Agency to investigate the possible violation before filing a complaint. It was Edison's contention that the Agency in this case reversed the procedure by filing a complaint as "the vehicle for conducting an investigation, through discovery and otherwise." This argument is wholly without merit. Section 30 requires the Agency to "cause investigations to be made . . . upon receipt of information concerning an alleged violation" and authorizes "such other investigations" as the Agency deems

1. Both these Rules are made applicable to existing equipment at Joliet by Rule 2-2.11.

"advisable." Section 31 requires the Agency to file a complaint "if such investigation discloses that a violation may exist." The purpose of these provisions is neither to prevent the Agency from filing complaints without prior attempts at conciliation nor to allow the Board to oversee the adequacy of the Agency's pre-complaint preparations. The former requirement was deliberately omitted when the old Air Pollution Control Act was replaced by the present law, because it served largely to delay enforcement. The suggestion that the Board determine how much the Agency should prepare before suing is inconsistent with the statute's careful separation of powers between prosecutor and judge; when the EPA is ready to file is its own business. The purpose of the investigation provision is to make sure that the Agency follows up on citizen complaints, not to postpone prosecution. In any event, Edison's own motion reveals that the Agency made a perfectly adequate investigation before filing this case; the violations charges were observed, if the evidence is believed, by Agency personnel, and the alleged violation of the particulate standard was suggested by documents filed by the company with the Agency's predecessor some years before.

Edison's amended answer raises two issues. First, it is argued that the Air Pollution Control Board's May, 1968 approval of an air contaminant emission reduction program (ACERP) for the Joliet station constitutes a defense to all charges for violation of the regulations, because Rule 2-2.41 provides:

> When an emission reduction program has been approved, the person receiving the approval shall not be in violation of this Section [which incorporates both the Ringelmann and the particulate provisions] provided that the approved program is being implemented.

It is true that this provision, like the regulations under which Edison is charged, is preserved by section 49 of the statute, and that a literal reading of it would provide an indefinite defense to an enforcement action. But if the Rule is so construed, it was beyond the power of the Air Pollution Control Board and to that extent invalid. For the Rule as so construed in fact authorizes the grant of a variance permitting emissions in excess of regulation limits for an indefinite period, while the statute flatly limited variances to one year (Air Pollution Control Act, Section 11). Since the ACERP in this case was approved in 1968 and never renewed, it is therefore no defense to an enforcement action today, although it is clear that we would not be inclined to impose money penalties on anyone who in good faith had adhered to an approved program. In this case no money penalties are sought. We need not decide the further question whether an ACERP would be a defense during the first year after its approval despite the lack of any requirement in the Rules (as Edison points out in its brief, pp. 16-17) that the petitioner show, as required by the statute,

that to require immediate compliance would constitute an arbitrary or unreasonable taking of property, or the closing of a business without sufficient benefit to the public (Air Pollution Control Act, Section 11).

Edison's amended answer also argues that all claims with respect to turbine generators 1, 2, 3, and 4 (which are powered by boilers 1 and 2 and which discharge through stack 1) should be dismissed as moot because the order of the Illinois Commerce Commission in the 1969-70 Edison rate case (ICC Docket #55149) required the company as a condition of a rate increase to retire these units by October 31, 1970--a date that had passed before the hearing in the present case began. If the units in question had been dismantled we would agree that there was no controversy over their future use and therefore nothing for us to decide about them. But this is not the case. Edison plans to leave these units in place until October 31, 1971 and says it may ask to use them again in an emergency:

> the only exception to this commitment never to run them again would be in the event of a very extreme emergency at which time electric power was not available from any other source, and only then if the Company had satisfied the Illinois Commerce Commission of the propriety of temporarily suspending that portion of its order which prevents those units from running (R. 45).

Whether units 1-4 should be permitted to operate under those limited conditions in another question which we decide below. But it is a significant question, and therefore the case is not moot with respect to units 1-4.

Edison does not suggest that the existence of the ICC order in any way precludes the Board from entertaining this complaint, and for good reason: Far from immunizing the company from compliance with the regulations or from proceedings to enforce them, the ICC order expressly required Edison to obey all existing and future pollution regulations (p. 43).

At the hearing Edison moved to strike the third paragraph of the final complaint, which charged the causing of air pollution as defined by the statute, on the ground that this paragraph stated a "bare conclusion" in the absence of sufficient facts to inform the respondent of the nature of the charges against it (R. 17). We think this contention has merit. It is important here to distinguish the degree of specificity required in a statute from that required in a complaint. In the case of a statute a good deal of latitude is allowed the legislature, since that body could not possibly foresee the myriad fact situations that might give rise to excessive pollution. Cf. Metropolitan Sanitary District v. United States Steel Corp., 41 Ill. 2d 440, 243 N.E. 2d 249 (1968), upholding a very unspecific statutory prohibition of pollution against the allegation that it was unconstitutionally vague. The case is quite different, however, with regard to a complaint. There is no excuse for lack of specificity in filing

a complaint except the desire to obtain an unfair advantage by surprise. To permit such an advantage is foreign to the entire concept that a tribunal is to make every effort to ascertain the true facts, and it deprives a respondent of his day in court.

The present case is an excellent example of these principles. The first two paragraphs of the complaint are quite specific; they allege by reference to the regulations the emission of smoke from a named source on named dates and darker than #1 on the standard smoke chart, and the emission of particulate matter from named sources on a continuous basis in violation of a precise numerical standard. These charges make it quite clear what Edison must prove in order to contest the Agency's case. But the third paragraph gives no clues as to the nature of the contaminants allegedly emitted or as to any other facts that might put Edison on notice of the nature of its alleged offense. The natural implication of this paragraph, tucked away as it is like a boiler-plate catchall provision, is that it is just another handle for establishing excessive emissions of the type already charged in the complaint, namely smoke and other particulates. The vice of such a broad allegation was amply brought home when the Agency sought to utilize this paragraph to support a charge that sulfur dioxide emissions from the Joliet plant should be brought under control. Nowhere in the complaint was sulfur adverted to; the complaint did not give Edison fair warning that sulfur was in the case; and there is no justification for the omission.

The statute itself, in section 31(a), requires that the complaint not only specify the provision allegedly violated but also contain "a statement of the manner in, and the extent to which such person is said to violate this law or such rule or regulation," and the procedural rules of this Board make the same requirement more explicit: "The complaint shall contain . . . a concise statement of the facts upon which the respondents are claimed to be in violation", PCB Regs., Ch. 1, Rule 304(c)(2). Not only were these rules in effect before the second amended complaint was filed in the present case; the Board had already thrown out a very similar allegation under very similar circumstances in Environmental Protection Agency v. Lindgren Foundry Co., #70-1 (September 25, 1970). We do not ask that the Agency plead all its evidence; we do think it is not too much to insist that the words "sulfur dioxide" be mentioned if that substance is to be brought into a case otherwise dealing with particulates alone by reference to the general prohibition against air pollution.

The availability of discovery procedures is no answer; as Edison argues, the State cannot simply accuse a man of burglary and leave him to discover the time and place of the alleged crime through interrogatories. Nor was the element of surprise in this case removed by proceedings in advance of the hearing. A pre-hearing conference came and went without mention of any allegation of a sulfur dioxide violation (R. 72). The Agency refers us to an Edison reply to an interrogatory indicating that the company admitted the emission of some sulfur dioxide from the Joliet plant

(R. 71). But the question simply asked for a listing of contaminants emitted; unless the search for facts is to be replaced by a game of wits between clever attorneys, we cannot deem this oblique inquiry the equivalent of a fair warning that Edison was charged with a sulfur violation.

Of course sulfur dioxide emissions may under certain circumstances violate § 9(a) of the Act even though no specific emission regulations governing that contaminant are yet in force, but Edison was not given fair warning that this issue was in the present case. For failure to comply with the statute and the Board rules, and for failure to inform the respondent of the nature of the offense charged, the third paragraph of the final complaint is hereby stricken insofar as it applies to contaminants other than smoke or particulate matter.

This brings us to the facts, and the factual issues are not difficult. The Old Joliet station is composed of six turbine generators powered by five coal-fired boilers discharging their exhaust gases through four stacks. It is adjacent to the New Joliet station, whose emissions are not in issue in this case. Generator 6, driven by boiler 5 and exhausted through stack 6, is now in compliance with the regulations and has been since 1968, insofar as the evidence shows; it is a cyclone furnace equipped with a precipitator of 89.8% efficiency and its emissions, as calculated by Edison and not contested by the Agency, are 0.05 pounds per million btu. The standard, as computed by Edison and not contested by the Agency, is 0.6 (EPA Ex. 2). Generator 5, driven by boilers 3 and 4, which exhaust through stacks 2 and 3, was admitted by Edison to discharge 2.75 pounds per million btu in 1968 as contrasted with the standard of 0.6. Edison's ACERP provided for the installation on this unit by fall 1971 of a precipitator with an "efficiency rating" of 98% (ibid),[2] which would bring emissions from this source well within the standard. The ICC order, however, accelerated this date to December 31, 1970, and construction began in the early summer of that year (R. 81). The unit was scheduled to be shut down for four weeks beginning December 20, 1970, in order to complete the installation; Edison's witness testified that "if things go according to schedule it should be completed, and we should be back in service with the precipitators about mid-January," and that "as far as I would know or be concerned, . . . it would not be operated without the precipitator after December 31" (R. 350-51).

2. Apparently the 98% rating is based in part upon the ability of the cyclone furnace itself to eliminate some of the larger particles, for the same "efficiency rating" was assigned in the ACERP to the existing 89.8% precipitator on generator 6 (EPA Ex. 2), and an Edison witness testified that the precipitator for unit 5 would actually be "90 percent effective" (R. 348). Even on this assumption completion of this precipitator will reduce emissions to 0.275.

In its brief, filed after the close of the hearing, Edison argues that the case is now moot as to generator 5 because the precipitator has since been installed and its emission rate is now "comparable to stack #6" (Pp. 4-9). But we cannot make factual findings based on unsworn allegations in the briefs. Nor can we accept Edison's apparent argument that because it planned not to violate the regulations after 1970 it should not be ordered to comply; slippage in meeting expected schedules is not unknown, and an order to comply is a useful means of promoting adherence to a plan.

The most significant controversy is the one Edison argued from the outset was moot: What is to be done with the four generators (1-4, powered by boilers 1 and 2 exhausted through stack 1) that the ICC said should be retired by October 31, 1970? That these units are in violation when operated is abundantly plain; the Company's own figures show estimated emissions of 6.58 pounds per million btu, or more than six times the regulation limits (EPA Ex. 2).[3] It is no answer that these figures are estimates, rather than the results af stack tests; we have held before now that estimates based upon fuel and source information and standard emission factors are sufficient to prove a violation in the absence of rebuttal, EPA v. Lindgren Foundry Co., supra, and Edison made no attempt to prove that these old, uncontrolled units were in compliance. Nor is it decisive that the estimates were made in 1968; there is nothing in the record to suggest that the information on which the estimates were made has in any way changed in the meanwhile.

That units 1-4 were responsible for Ringelmann violations on the three days specified is therefore not crucial, but it is also clear from the record. An EPA engineer schooled in the use of the smoke chart (R. 108) testified without contradiction that on each of those days he observed smoke from the relevant stack that equalled or exceeded # 2 on the chart for periods of several minutes (R. 110-11 and EPA Exhibits 31, 32, 33). Efforts to poke holes in this testimony were without success (R. 113-76).

Edison attempted to show that any excessive smoke that may have occurred was the result of "upset conditions" or of "building a new fire," either of which would give some degree of defense to a Ringelmann charge under Rules 3-3.310 and 3-3.331, but also without success. Edison's witness testified at some length that excessive emissions were likely to occur during the building of a new fire, or as a result of spontaneous combustion of the fuel, which can require the sudden dumping of wet

3. These figures and those in the preceding paragraph also show that at the time of the hearing the operation of generators 1-5, together with adequately controlled generator 6, would cause particulate violations from the plant taken as a whole (1.05 16 lbs. million btu, 0.31 allowed).

coal into the boilers and cause incomplete combustion (R. 331-41). He also, however, testified that such emissions could be due to human error or to the increase in load on a unit already operating, neither of which is a defense (ibid), and he was unable to say with any degree of definiteness what had caused the smoke problems on the three dates in question. He said that others had told him there had been "intermittent trouble almost all day long" with a coal fire and that consequently the bunker had been emptied into the boilers on July 28; that the same general problem had existed on July 30; that the bunkers were being emptied once again on October 27 "as a part of preparing . . . for the retirement of the units"; and that the October violation "would have been in connection with a start-up, a load-up" (R. 365-68). But the witness did not know at what time of day the alleged upsets had occurred; he did not know whether they had occurred at the time the Ringelmann readings were taken; he conceded that the first two violations "could not have had to do with starts, since they occurred in the afternoon and the units were placed in service . . . around 8:00 in the morning"; his conclusion with regard to the October 27 incident was based on the fact that it had occurred at "the time we usually bring up the unit" and not on any recollection that the unit had actually been started at that time; the bunker unloading on October 27 was not alleged to be the result of any upset or other matter of defense; and the witness had no personal knowledge of any of the defenses to which he testified (R. 365-69). If the smoke emissions were due to a breakdown or to starting a new fire, Edison had ample opportunity to present witnesses with intimate knowledge of the matter and to produce exact records to prove the point.[4] It did not do so, and it did not prove its defenses. The burden of proof is on the respondent to establish the affirmative defenses of upset or startup, which are peculiarly within its knowledge. We find smoke violations on the three days in question.

The final question is what order to enter in order to prevent the recurrence of particulate and smoke violations from units 1-4, which in fact were "retired" before the hearing began (R. 77, 351). A number of steps have been taken to prepare the retired boilers for their idleness, including preparations to inhibit corrosion, the removal of "pump packing and protecting bearings," and the replacement of hydrogen in the generator with relatively inactive nitrogen (R. 353-53). Yet Edison insists that it reserves the privilege of starting up these "retired" units "in the event of a very extreme emergency at which time electric power was not available from any other source," upon application to the Commerce Commission (R. 45). It is clearly the company's right to

4. Edison half-heartedly argues that it was deprived of this opportunity by the Agency's failure to report the violation to the company at the time (Brief, pp. 22-29). Such a requirement would unduly hamper the Agency's operations, and Edison could have foreseen the desirability of keeping records of upsets for this purpose. The argument lacks merit.

apply for a variance on the ground that compliance would impose an unreasonable hardship during times of power shortage, and the statute is clear that no formal petition is necessary; the respondent in a complaint proceeding is entitled to prove unreasonable hardship as a matter of defense (section 31(c)). But the statute places the burden of proof on the company on this issue (section 31 (c)), and not one shred of evidence was introduced to show that Edison or its customers would suffer hardship if the company were absolutely forbidden to use the dirty old units at Joliet.[5] The only Edison testimony remotely related to the question of future use of units 1-4 was elicited on cross-examination over Edison's objection, and it went only to the company's intentions, not to hardship: "I understand that if a case of dire need, there may be some operation of it some time in the future . . . . It wouldn't be my decision to make" (R. 78). We cannot allow these units to be kept on a standby basis indefinitely, with the attendant risk of pollution, on the basis of an unproved assertion that an emergency may occur. There are other ways to provide for emergencies, and, as Edison says, retiring old units is one of the best ways to reduce pollution (R. 41).

The statute requires the Board to consider, in framing its order, such facts as the harm caused by the emissions, the social and economic value of the pollution source, the nature of the area in which it is located, and the technical and economic feasibility of reducing future emissions (Section 33 (c)), and we have done so. The weight to be given the section 33 (c) factors is indicated by section 31 (c): Compliance is to be ordered unless, after considering these factors, such an order would impose an unreasonable hardship. There can be no defense under § 33 without proof of hardship and there was no such proof in this case.

As for the extent of harm from Edison's emissions, proof that the regulation limits were exceeded gives rise to at least a presumption of harm; anything less would render meaningless the power to adopt regulations and require proof of a nuisance in every case. The legislative history shows that the statute was meant to avoid this danger by giving independent force to the regulations. As Edison's brief emphasized (pp. 25-26), if the Agency after proper notice had shown sulfur dioxide emissions in excess of a numerical regulation standard, the "Complainant could have rested." Edison did not attempt to show that the

5. Edison introduced, presumably on the sulfur issue, a good deal of evidence as to the social value of electricity, but it did not show that keeping units 1-4 out of action would impair its ability to deliver.

emissions were harmless.[6]

It remains only to add that, while Edison is surely right in saying it must obtain the permission of the ICC if it ever wished to operate units 1-4 again without losing its rate increase (R. 78), the ICC has no authority to grant variances from the regulations effective under the Environmental Protection Act. Even in the absence of a prior order of this Board against such use, the company could not with impunity fail to comply with those regulations absent a showing to this Board that compliance would impose an arbitrary or unreasonable hardship.

In light of our findings above it is unnecessary to decide whether the particulate and smoke emissions from the old Joliet station cause air pollution in violation of the statute itself.

6. Moreover, the evidence is clear not only that units 1-4 cannot be operated in compliance with the particulate regulations, but that the intermittent use of units for peaking or emergency purposes is the pattern of use most likely to result in smoke violations: First, because coal piles left standing unused are more likely to ignite spontaneously and require unanticipated and irregular boiler use (R. 340), and second, because incomplete combustion is to be expected during startup operations (R. 360).

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

ORDER

The Board, having considered the record, hereby orders as follows:

1. Commonwealth Edison Company shall not operate the Old Joliet station as a whole, or boiler 1, 2, 3, or 4, generators 1, 2, 3,4, or 5, or stacks 1, 2, or 3 thereof, so as to cause violations of Rule 3-3.112 of the Rules and Regulations Governing the Control of Air Pollution, made applicable by Rule 2-2.11 thereof.

2. Commonwealth Edison Company shall not operate generators 1, 2, 3, or 4, boilers 1 and 2, or stack 1 of the Old Joliet station so as to cause violations of Rule 3-3.122 of those Rules and Regulations, made applicable by Rule 2-2.11 thereof.

3. Commonwealth Edison Company shall within 30 days from the date of this order submit to the Board and to the Agency satisfactory assurances, by affidavit, as to the status of emissions from boilers 3 and 4, generator 5, and stacks 2 and 3 of the Old Joliet station.

I, Regina E. Ryan, Clerk of the Pollution Control Board, certify that the Board adopted the above Opinion and Order this 17th day of February, 1971.

Regina E. Ryan
Clerk