

ILLINOIS POLLUTION CONTROL BOARD

February 14, 1975

CENTRAL ILLINOIS PUBLIC SERVICE COMPANY AT:)
Grand Tower Power Station)
(Mississippi River))
Hutsonville Power Station)
(Wabash River), and)
Meredosia Power Station) PCB 74-145
(Illinois River),)
Petitioner,) PCB 74-148
v.) PCB 74-149
ENVIRONMENTAL PROTECTION AGENCY,)
Respondent.)

Mr. Thomas L. Cochran, attorney for Petitioner.
Mr. Delbert D. Haschemeyer, attorney for Respondent.

OPINION AND ORDER OF THE BOARD (by Dr. Odell)

Central Illinois Public Service Company (CIPS) has appealed to the Pollution Control Board (Board) after denial by the Environmental Protection Agency (Agency) of operating permits at its Grand Tower (PCB 74-145), Hutsonville (PCB 74-148), and Meredosia (PCB 74-149) Power Stations. Petitions For Review were filed on April 24, 1974, in PCB 74-145 and PCB 74-149; on April 25, Petition For Review was filed in PCB 74-148. On June 13, 1974, the Petitioner, pursuant to Rule 408 of the Procedural Rules, indefinitely waived the requirement of final Board action within 90 days as authorized by Section 38 of the Environmental Protection Act. On October 31, 1974, the Board issued a More Information Order in which we requested the parties to supply additional information on the quantities of contaminants involved in the CIPS process. The additional data were received by the Board on December 20, 1974, with a cover letter signed by J.T. Birkett, an employee of CIPS. The data submitted were based on grab samples mutually agreeable to the parties. The United States Environmental Protection Agency (USEPA) attempted to intervene through a letter and accompanying data received on February 3, 1975. USEPA requested the Board to consider Suspended Solids data for plants in Minnesota and Wisconsin. On February 10, 1975, CIPS opposed the inclusion of this data on grounds of procedural due process. We rule that data supplied by USEPA is not admissible for this proceeding. The parties have submitted briefs to the Board. Because the issue to be decided in each petition is the same, the cases have been consolidated for decision.

The three fossil fuel generating stations, which are the subjects of these petitions, are located near Grand Tower, Hutsonville, and Meredosia, Illinois. All three facilities are similar in operation. Coal is burned to make steam to produce electricity. After the coal is burned, an ash residue remains. The ash collected at the bottom of the furnaces is called bottom ash; the ash captured

by electrostatic precipitation before it can escape into the atmosphere is called fly ash. The ash is removed from the furnaces and the electrostatic precipitators by pumping in river water and mixing it with the fly ash and bottom ash. This mixture is then discharged into ash ponds, where most of the suspended solids settle out. The slurry enters one side of a pond and flows to the other side and then is discharged back into the river downstream from the intake point. No additional water is added from other sources so there is not an issue under Rule 401(a) of the Water Pollution Regulations (Chapter Three) regarding dilution.

The Agency denied operating permits to all three stations in February, 1973. The Petitioner's Request For Reconsideration was denied in March, 1974.

During August, 1974, hearings were held for each of the power stations. A stipulation was made part of the record at each hearing. The evidence in the stipulation reveals that the influent (river water) contains substantially greater amounts of suspended solids than does the effluent being discharged from the ash ponds back into the respective rivers. Specifically, the stipulations indicate the following average concentrations of suspended solids from July, 1973 through June, 1974:

Power Station	Influent (River Water) mg/l	Effluent mg/l
Grand Tower PCB 74-145	333.6	77.8 (bottom ash pond) 40.4 (fly ash pond)
Hutsonville PCB 74-148	198.8	40.7 (depository for both bottom and fly ash)
Meredosia PCB 74-149	129.0	12.8 (bottom ash pond) 15.5 (fly ash pond)

The evidence submitted on December 20, 1974, from grab samples taken November 26, 1974, continues the same trend for suspended solids. However, several other contaminants were above the standards set out in Rule 405 and Rule 408(a) of Chapter Three. These data are summarized on the following page.

Selected Characteristics of Influent and Effluent from
Three Power Stations and Associated River Waters

Power Station Case Number	Contam- inant	Rule 405 or 408(a) Stand- ard	River Flow ^b	Total Water Dis- charge From All Ponds	Up- stream Sample	Inlet Sample	Effluent		Edge of Mixing Zone	
							B.A.P. ^c	F.A.P. ^d	B.A.P. ^c	F.A.P. ^d
		mg/l	CFS	MGD	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Grand Tower PCB 74-145	TSS	15	47,240	1.260	52	55	11	8	51	49
	Fecal Coliform	400 100ml ^a			2000	2000	<u>920^f</u>	< 2	2000	2000
	Mercury	.0005			.0005	.0003	<u>.0008^f</u>	.0003	.0003	0.030
	pH	5-10 ^a			7.3	7.7	8.1	<u>11.3^f</u>	7.9	8.0
Hutsonville PCB 74-148	TSS	15	1,208	1.800	54	52	13 ^e		38 ^e	
Meredosia PCB 74-149	TSS	15	3,500	1.533	92	67	14	<u>17^f</u>	77	66
	Mercury	.0005			.0007	.0007	<u>.0007^f</u>	.0004	.0006	.0005

- a. Expressed in units other than mg/l.
- b. This figure represents the 7-day 10-year low flows for these rivers.
- c. B.A.P. is the abbreviation for "bottom ash pond".
- d. F.A.P. is the abbreviation for "fly ash pond".
- e. The effluent empties into a pond, which is a common depository for both bottom and fly ash.
- f. Underlined values are in violation of the applicable standard.

The Agency argues that the Petitioner must meet the standard of 15 mg/l of suspended solids in Rule 408(a) of Chapter Three. Petitioner, on the other hand, asks the Board to rule that Rule 401(b) of Chapter Three is controlling so that the standards of Rule 408(a) are inapplicable. In its petitions for review Petitioner argues 'that under Rule 401(b) there is no obligation upon CIPS "to clean up contamination caused essentially by upstream sources or to require treatment when only traces of contaminants are added to the background."'

In deciding whether Rule 408 sets an absolute standard that must be met, it is helpful to look to the Board's Opinion regarding Rule 401(b) in In the Matter of Effluent Criteria R70-8, 3 PCB 401, 404 (January 6, 1972). The Opinion states:

"401 (b) Background Concentrations. Many questions were raised as to effluent requirements when water is taken from a source that already is high in contaminants, the argument often being made that it is unfair to "penalize" a user for contaminants placed in the water by someone upstream or naturally occurring in ground water supplies. Our initial effort to deal with this problem allowed such waters to be discharged provided that they had not been increased in concentration and provided that no violation of the water quality standards resulted. This was widely objected to as too tight, since most water uses cause some increase of concentration, if only through evaporation, and since any water taken from and returned to a stream whose quality exceeds standards will cause a violation. We have consequently rephrased the proposal to state the applicable policy without confining absolutes, much as we have done in the case of dilution. We are not prepared simply to allow credit for background concentrations, both because to do so would permit progressive deterioration of stream quality as one moves downstream, and because the evidence is that the types of treatment necessary to meet the proposed standards are principally limited by ultimate concentrations and not likely to be seriously affected by relatively low background levels. On the other hand, we do not wish to require expensive treatment processes to be installed simply to clean up what has been put into the water by upstream users or to remove traces of materials that it is not worth the cost of removing. As in the case of dilution, it seems best to leave the details to be worked out on a case-by-case basis in the light of a general principle stated in the regulations."

That Opinion makes clear that while credit is not to be allowed for background concentration which would permit the continued deterioration of a waterway, users are not to be "penalized" for concentrations existing prior to their use provided that they do not add additional amounts of contaminants to the water. The Opinion concludes by specifying that determinations under Rule 401(b) are to be made on a case-by-case basis. This philosophy is embodied in Rule 401(b):

"(b) Background Concentrations. Because the effluent standards in this Part are based upon concentrations achievable with conventional treatment technology that is largely unaffected by ordinary levels of contaminants in intake water, they are absolute standards that must be met without subtracting background concentrations. However, it is not the intent of these regulations to require users to clean up contamination caused essentially by upstream sources or to require treatment when only traces of contaminants are added to the background. Compliance with the numerical effluent standards is therefore not required when effluent concentrations in excess of the standards result entirely from influent contamination, evaporation, and/or the incidental addition of traces of materials not utilized or produced in the activity that is the source of the waste."

This Rule has been the subject of interpretation in a previous case before the Board. See Citizens For A Better Environment v. Procter and Gamble Manufacturing Company PCB 72-463, 8 PCB 473 (July 12, 1973). Although the effluent concentration was above the standards in that case, the Board ruled that "since no showing has been made that Procter and Gamble adds or has the capability of adding suspended solids or lead in its use of the river for cooling, we find no violation." In that case, it is clear that the Board applied the general intent of Rule 401(b), as well as finding that the Petitioner's activity clearly falls within one of the three situations in the last sentence of the Rule, i.e., "compliance . . . is not required . . . when effluent concentrations in the excess of the standards results entirely from influent contamination . . ."

In this case, since Petitioner failed to submit evidence that it falls within any of the three 401(b) situations, the issue is whether the Petitioner can be granted a permit from the Agency when its activity is the kind to which the Rule may be applicable, but not enumerated within it. The Agency argues in its brief that failure to satisfy the strict language of Rule 401(b) means that the Petitioner must meet the absolute standard of 15 mg/l for total suspended solids in Rule 408(a). We rule, however, that in this

case failure to satisfy any of enumerated situations in Rule 401(b) is not sufficient grounds to deny a permit. First, the enumerated situations should not overshadow the general intent of the Rule. In People ex rel. County of DuPage v. Smith 21 Ill 2d 572, 173 N.E.² 485 (1961), the Illinois Supreme Court stated:

"Where a statute contains enumeration of certain things to which the act applies and also contains a general term or expression concerning the application of the act, the general term may be given full effect if the content shows the enumeration was not intended to be exclusive."

Second, we believe that the Rule, when read against the backdrop of the Opinion in In the Matter of Effluent Criteria, indicates a philosophy that cannot be limited to a few hard-and-fast situations. We are merely interpreting Rule 401(b) according to the philosophy behind it. In Lincoln Nat. Life Ins. Co. v. McCarthy 10 Ill. 2d 489, 140 N.E.² 687 (1957), the aim of statutory construction was made clear:

"The primary purpose of statutory construction is to ascertain the legislature's intention not only from language which it has used, but also from the reason and necessity of the act, evils sought to be remedied and objects and purposes sought to be obtained."

From the facts and circumstances in this case, the amounts of suspended solids in the effluents do not constitute grounds for denial of a permit. The Petitioner is satisfying the intent of the Rule. Here the effluents are of substantially better quality than the influents. Additional treatment would have virtually no effect on the quality of the river waters. Finally, the increased cost of additional clean-up greatly outweighs any possible environmental benefit that removal would achieve.

Rule 401(b), however, imposes an additional requirement on the grant of a permit. It states in pertinent part that ". . . it is not the intent of these regulations . . . to require treatment when only traces of contaminants are added to the background." The question is whether the Petitioner is adding other contaminants in sufficient quantities that they cannot be said to be mere trace amounts. Traces of contaminants includes all the Part IV constituents for which an effluent standard exists. Whether a particular constituent exists in more than trace amounts depends on the magnitude and frequency of the additions, the toxicity of the contaminants, and the character of the receiving stream. Other factors may also be relevant.

At all three facilities we are satisfied with the effluent concentrations for suspended solids, but at Grand Tower we have insufficient facts to rule that the contaminants being added in violation of the Part IV standards are only trace amounts. Since fecal coliforms are not being added, this parameter does not create a problem for purposes of Rule 401(b). Hutsonville has no other

constituents above the Part IV standards and clearly satisfies the intent of Rule 401(b) for suspended solids. At Meredosia, the mercury concentrations are above the standard but since no trace amounts are being added, the amounts of mercury in the effluent do not cause Meredosia to fall outside of the protection of Rule 401(b) for suspended solids.

It is appropriate that the issue of Rule 401(b) come to the Board for action on a case-by-case basis. On the basis of additional information and review, we find that the Agency correctly denied Petitioner a permit at Grand Tower (PCB 74-145), but Petitioner's effluent sufficiently satisfies Rule 401(b) requirements that permits should not be denied on these criteria at Hutsonville (PCB 74-148) and Meredosia (PCB 74-149. If the Petitioner can successfully meet the other standards for permit issuance, the Agency shall issue permits at Hutsonville and Meredosia.

Since the issues in this case have been resolved through interpretation of Rule 401(b), we need not rule on the constitutional issues raised in the Petitioner's brief.

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

ORDER

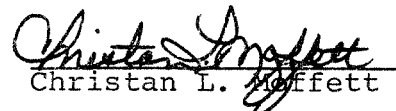
IT IS THE ORDER of the Pollution Control Board that:

1. Although Rule 408(a) of Chapter Three sets a limit of 15 mg/l for total suspended solids, Rule 401(b) modifies this absolute standard, and the amounts of suspended solids in Petitioner's effluent are alone not sufficient grounds to deny the Petitioner its permits.

2. Petitioner satisfies the trace amounts test for contaminants other than suspended solids in Rule 401(b) at its Hutsonville and Meredosia facilities. The trace amounts in Petitioner's effluent at Hutsonville and Meredosia are not sufficient grounds to deny the Petitioner its permits, and we hereby reverse the Agency regarding its ruling for the suspended solids concentration in Rule 401(b) of Chapter Three.

3. Petitioner fails to satisfy the trace amounts test for contaminants other than suspended solids at Grand Tower because of insufficient information. The Agency's denial of a permit at Grand Tower is therefore upheld.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 14th day of February, 1975, by a vote of 4 to 0.


Christan L. Moffett