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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION 4/10/80

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
NORTHERN INDIANA PUBLIC)	Docket No. 50-367
SERVICE COMPANY)	(Construction Permit Extension)
)	
(Bailly Generating Station,)	
Nuclear-1))	

NRC STAFF BRIEF ON THE FINALITY OF
ASH POND SEEPAGE AND CONSTRUCTION DEWATERING
CONSIDERATIONS AT THE BAILLY CONSTRUCTION PERMIT STAGE

At the Special Prehearing Conference held in the captioned proceeding on March 12-13, 1980, the Licensing Board Chairman requested the participants to brief the question of whether the relationship between ash pond seepage from the coal plants adjacent to the Bailly site and the effects of construction site dewatering can be considered in this proceeding in light of the litigation of this matter in the Bailly construction permit hearings (Tr. 227). The Chairman's briefing request was prompted by the submission of substantially identical proposed contentions regarding site dewatering by intervention petitioners Porter County Chapter of the Izaak Walton League, et al. and the State of Illinois.

The Staff believes that to the extent ash pond seepage is relevant to a consideration of the environmental effects upon the Indiana Dunes National Lakeshore (Lakeshore) and adjacent areas of nuclear construction dewatering, the matter was fully litigated during the Bailly construction permit

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hearings and is barred from reconsideration in this matter under the principles of collateral estoppel.^{1/}

The relationship envisioned between the environmental effects of ash pond seepage and construction dewatering at the construction permit phase is summarized in the attached Staff affidavit of Robert P. Geckler, the environmental project manager for the Bailly project. The environmental effects of Bailly site dewatering upon the water levels of the Lakeshore, nearby interdunal ponds, and Cowles Bog were extensively litigated during the Bailly construction permit hearings in connection with a contention of then intervenors Porter County Chapter, et al.^{2/} Though they bore no direct causal relationship to construction dewatering, the separate effects of ash pond seepage upon these same water bodies were considered on the record. The record establishes the depth to which site dewatering would drawdown or drain the adjacent groundwater and its potential resultant effect on water levels in the Lakeshore area.^{3/} It was established that as the distance from the excavation increases, drawdown effects decrease.^{4/} Areas outside a one-mile radius from the site, such as Cowles Bog and the more distant parts

^{1/} See Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-78-1, 7 NRC 1, 27 (1978); Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2 and 3), ALAB-378, 5 NRC 557 (1977).

^{2/} LBP-74-19, 7 AEC 557 (1974); ALAB-224, 8 AEC 244 (1975); stayed on other grounds, Porter County Chapter of Izaak Walton League of America, Inc. et al. v. NRC, 515 F.2d 513 (7th Cir. 1975); rev'd and remanded, 423 U.S. 12 (1975); Porter County Chapter of Izaak Walton League of America, Inc., et al. v. NRC, 533 F.2d 1011 (7th Cir. 1976); cert. denied, 429 U.S. 945 (1976).

^{3/} 7 AEC at 589-590.

^{4/} 7 AEC at 590.

of the Lakeshore, would not likely be affected.^{5/} The initial drawdown effect from dewatering on the water elevation in the interdunal ponds was found to be insignificant.^{6/} It was concluded that ash pond seepage would likely offset the drawdown to some extent.^{7/} As a precaution, however, the Applicant devised a program to monitor potential reductions in the water levels of the closest interdunal ponds. The Staff approved this program which the Board concluded contained the "necessary steps for a detection of any effects on the interdunal ponds of dewatering activities during construction and the mitigation of such effects by replacement of compatible water or recharging of groundwater and will prevent any significant adverse environmental impact to the National Lakeshore." 7 AEC at 591. See also Geckler affidavit at 2. The Appeal Board upheld the Licensing Board's finding in this regard and concurred that Bailly construction would not harm the Lakeshore environment. 8 AEC at 258-261.

At the direction of the Commission, the record in this matter was reopened to receive testimony on the Applicant's later proposed use of a "slurry wall"^{8/} in lieu of well-point dewatering to keep the construction excavation dry. The use of the slurry wall was approved subject to certain conditions for the protection of the environment which became a part of the Bailly

^{5/} Id.; 8 AEC at 274.

^{6/} Id.

^{7/} Id. at 589.

^{8/} A "slurry wall" was described as an "impermeable barrier constructed . . . by implanting under pressure a mixture containing bentonite clay and cement in the soil around the site perimeter." 8 AEC at 981-82.

construction permit itself.^{9/} Present petitioners Porter County Chapter, et al. were party intervenors in the slurry wall hearing and the State of Illinois participated as an interested state.

An additional development since issuance of the construction permit is the agreement entered into between the Applicant and the Department of Interior to seal the ash ponds. This was done in order to further the Department's present goal of restoring the Lakeshore to its natural regime, a goal which it had not espoused at the construction permit stage. Geckler affidavit at 3. Thus, seepage will cease contributing to the water levels of the interdunal ponds. This could occur as construction dewatering continues. Geckler affidavit at 4. Upon the resumption of construction (effectively suspended while the foundation pile plans are reviewed), dewatering could continue for a period of 18 additional months. Id. The Staff will evaluate the environmental consequences of continued dewatering absent the influence of ash pond seepage and cooperate with the National Park Service to further its goal of returning the Lakeshore to its natural state. Id.

^{9/} LBP-74-85, 8 AEC 901 (1974); LBP-75-3, 1 NRC 61; ALAB-303, 2 NRC 858 (1975). These conditions are as follows:

- (6) a. If the slurry wall does not work as anticipated and the Permittee decides to install well points to dewater the excavation, the Permittee shall notify the Staff in advance of this change.
- b. The Staff upon notification as required . . . above, shall take appropriate action to determine whether there is any effect upon the environmental monitoring program designed to detect and mitigate any possible adverse effects from dewatering, particularly in the area of the Indiana Dunes National Lakeshore. If there is any reduction in the effectiveness of the aforementioned monitoring program, the Staff shall take immediate action to require revision of the monitoring program to ensure its effectiveness and to mitigate any possible adverse effects.

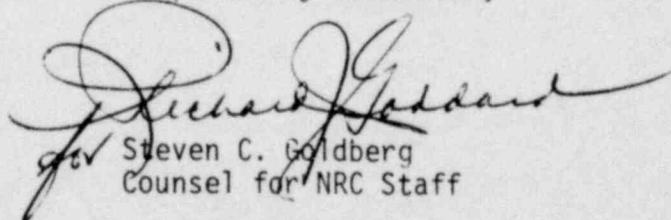
The Applicant has proposed such a change which received Staff review and approval upon development of an acceptable revised monitoring and mitigation program. Geckler affidavit at 3.

To the extent that construction dewatering continues beyond the date the ash ponds are sealed, the seepage from the latter into the interdunal ponds will be eliminated. This will be one less component that must be considered in monitoring the levels of the interdunal area. This should facilitate the ability of the Applicant, through the present monitoring and mitigation program, to eliminate, so far as practicable, any potential impact on the Lakeshore from site dewatering alone. To the extent that ash pond seepage might continue for a period of time contemporaneous with additional site dewatering, this represents a matter which was adjudicated in the construction permit and slurry wall hearings and is binding on the petitioners who appear to seek its introduction as an issue in this proceeding.

CONCLUSION

In light of the above, the Staff believes that the interrelationship between ash pond seepage and construction dewatering, and their collective environmental impacts on the Lakeshore and environs, was fully and finally decided during the Bailly construction permit hearings and is not a proper subject for relitigation in this matter.

Respectfully submitted,


Steven C. Goldberg
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 10th day of April, 1980