



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
INDIANA DUNES NATIONAL LAKESHORE
ROUTE 2, BOX 139A
CHESTERTON, INDIANA 46304

50-367

1 October 1979

Nuclear Regulatory Commission
17920 Norfolk Avenue
Bethesda, Maryland 20014

Dear Sirs:

The enclosed material relates to an emerging National Park Service position.

As you know, the National Park Service was not asked for its comments on the March 1978 Sargent and Lundy - NIPSCO plan for monitoring and mitigating the effects of dewatering. Indeed, significant NRC correspondence involving the monitoring plan was not available to the National Park Service until February 27, 1979. Although we do not have reason to challenge the plan at this time, we do reserve the option of opposing it as future investigations supply specific information on the subject.

In fulfilling its role as a responsible land manager, the National Park Service has determined that an independent monitoring program of the dewatering issue sponsored by the NPS is necessary. That program is the subject of the materials which are enclosed. In the event that construction at the nuclear plant site is resumed, the National Park Service and its hydrological advisor, the U.S. Geological Survey, will be monitoring for any loss of resource value to park lands.

It is expected that the Nuclear Regulatory Commission will fulfill its obligation to act quickly in the event of a dewatering situation to effect acceptable mitigation.

Sincerely,

James R. Whitehouse
Superintendent

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POOR ORIGINAL



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United States Department of the Interior

NATIONAL PARK SERVICE
INDIANA DUNES NATIONAL LAKESHORE
ROUTE 2, BOX 139A
CHESTERTON, INDIANA 46304

28 September 1979

MEMORANDUM

TO: Director, Midwest Region

FROM: Superintendent, INDU

SUBJECT: Monitoring of construction dewatering at NIPSCo-Bailly

The enclosed self-explanatory materials received from the U.S. Geological Survey comprise the program for independently monitoring construction dewatering at NIPSCo-Bailly. As indicated, the program was prepared by USGS hydrological advisors at Indiana Dunes, the recognized experts in the field, in response to a request by NPS to develop an adequate monitoring scheme to insure protection of natural resources within the lakeshore boundaries.

The enclosed plan has gone through Senior Staff (regional office) review within the USGS and was endorsed. The staff at Indiana Dunes concurs that at this time the plan appears to be sound and adequate to serve the purposes intended. Additional provisions recommended by INDU staff include:

1. Assurance that there was established a system for immediate communication from NIPSCo to the NPS whenever significant changes in pumping rates occur. It is suggested that, whenever possible, 30-day written notice be given before such increases in pumping. This would help to compensate for the delay that exists between pumping increases and the appearance of trends in the data that denote a dewatering effect.
2. During the critical period following dissipation of the fly-ash pond mound of water, and following possible resumption of construction at the nuclear plant site, more frequent collection of data from the observation wells may become necessary. To eliminate the time delay caused by retrieving the data tape bi-weekly, it may be necessary to add a temporary employee to the science staff to work full-time on the dewatering observations. Provisions for this action should be made in future budget programming.

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3. During this critical period, the use of "alert" water levels for each well to signal any strong possibility of dewatering would allow immediate action to be taken in calculation of actual dewatering effects, which take into account the seasonal variation. This immediate action would minimize the time delay between data recording in the field and subsequent calculations, in cases where the probability of dewatering is high.

The USGS plan is being provided to you for review by the regional staff. A copy of the plan is also being sent to Ray Herrmann, Chief, Division of Air and Water Resources, WASO for his comments. Dr. Herrmann's graduate education and thesis research related to ground-water hydrological modeling, and he is very familiar with the NIPSCO-Bailly issue as a result of consultations and visits to Indiana Dunes.

If there are any revisions in the monitoring plan or recommendations on the handling of this matter, it would be advisable to make them known as soon as possible.

J. R. Whitehouse

Enclosures

cc:

R. Herrmann, WASO

R. Ketchum, MWR

D. Stewart, USGS

D. Gillies, USGS

NRC



United States Department of

GEOLOGICAL SURVEY

Water Resources Division
1819 North Meridian St.
Indianapolis, Ind. 46202
(317) 269-7101

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SUPT.		CE. INTERP.
ASST. SUPT.		FAC. MGR.
RES. SCIENT.		SUPT. SEC.
ADMIN. OFF.		CMP. COORD.
CE. RANGER		YACC DIR.

September 4, 1979

Mr. J. R. Whitehouse
Superintendent
Indiana Dunes National Lakeshore
National Park Service
1100 North Mineral Springs Road
Porter, Indiana 46304

Dear Mr. Whitehouse:

In April 1979, representatives of the U.S. Geological Survey and the National Park Service met to discuss the ground-water monitoring program conducted by the USGS and NPS in the vicinity of the Northern Indiana Public Service Co. Bailly Generating Station since January 1976.

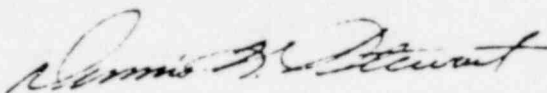
The monitoring program has been continued to observe the effects on the ground-water system underlying the Indiana Dunes National Lakeshore from fly-ash-pond seepage and construction dewatering for the nuclear power plant at the NIPSCO Bailly site. Even though the Nuclear Regulatory Commission has mandated NIPSCO to determine the magnitude of dewatering of NPS property and mitigate that which occurs, NPS and USGS personnel agree that the National Park Service should obtain an independent determination of the magnitude of dewatering. It was also agreed that a procedure should be developed whereby NPS could assess dewatering on a frequent basis as construction at the NIPSCO Bailly site progresses.

Thus, at the close of the April 17 meeting, the Indiana District of the U.S. Geological Survey agreed to do the following: (1) develop a procedure for determining the magnitude of dewatering of NPS property on a continuous basis as construction at the NIPSCO Bailly site proceeds, and determine the accuracy of that procedure; (2) review the existing observation-well network in the vicinity of the NIPSCO Bailly site for adequacy and determine the need for additional wells or instrumentation; (3) make arrangements for periodic, independent measurement of NIPSCO wells by USGS personnel. The purpose of this letter is to address these concerns and provide the necessary technical assistance to the National Park Service regarding the dewatering issue.

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The enclosed document, entitled, "USGS/NPS Plan for Determining Dewatering of the Indiana Dunes National Lakeshore Adjacent to NIPSCO Bailly Generating Station," is the result of our efforts to accomplish the goals regarding the dewatering issue set forth in our April 17 meeting. In this document, the rationale for the plan is described in detail and then applied to water levels measured near the NIPSCO Bailly site in March 1979. Also enclosed with this letter is an application of the plan to water levels measured August 1, 1979. We welcome your constructive criticism and comments, and hope that this plan will fulfill the requirements of the National Park Service. Please do not hesitate to contact us should you have questions regarding this matter.

Sincerely yours,



Dennis K. Stewart
District Chief

Enclosures

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Adjusted Reference Water Levels for Selected USGS and NIPSCO Monitoring
Wells in Unit 1, August 1, 1979*

Well No. (1)	Reference Water Level (2)	Adjusted** Reference Water Level (3)	Measured Water Level (4)	Deviation from Adjusted Reference Water Level (5) [(4) Minus (3)]
NIPSCO 15	589.0	589.0	590.48	+ 1.5
" 16	596.3	596.3	604.77	+ 8.5
" 17	593.8	593.8	601.24	+ 7.4
" 54C	594.4	594.4	605.20	+10.8
58	594.6	594.6	607.19	+12.6
59C	595.8	595.8	613.40	+17.6
67	593.7	593.7	602.09	+ 8.4
USGS 23	595.8	595.8	608.51	+12.7
" 25	(control well)	-----	601.92	-----
" 26	594.4	594.4	606.24	+11.8
G-1	596.4	596.4	615.12	+18.7
G-2	597.7	597.7	611.83	+14.1
G-6	602.3	602.3	609.54	+ 7.2

* Datum is NGVD of 1929

** Adjustment = 601.92 - 601.90 = 0.02