



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket No. 50-367
)	
NORTHERN INDIANA PUBLIC SERVICE)	(Construction Permit
COMPANY)	Extension)
)	
(Bailly Generating Station,)	June 22, 1981
Nuclear-1))	

NORTHERN INDIANA PUBLIC SERVICE COMPANY'S
THIRD SET OF INTERROGATORIES TO
JAMES E. NEWMAN



Northern Indiana Public Service Company (NIPSCO) hereby serves its Third Set of Interrogatories to James E. Newman (hereinafter "Newman"), pursuant to 10 C.F.R. § 2.740b. Each interrogatory is to be answered fully in writing, under oath or affirmation, by Newman and is to include all pertinent information known to Newman. Each answer should clearly indicate the interrogatory to which it is intended to be responsive.

Under NRC regulations (10 C.F.R. § 2.740(e)) parties are required to supplement responses to interrogatories under certain circumstances when new and/or different information becomes available.

In responding to these interrogatories, please include all information available to agents, employees, attorneys, investigators, and all other persons directly or indirectly subject in any way to the control of the person or organization to which these interrogatories are directed.

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"Documents" means all written or recorded material of any kind or character known to Newman or in his possession, custody, or control, including, without limitation, letters, correspondence, telegrams, memoranda, notes, records, minutes, contracts, agreements, records or notations of telephone or personal conversations or conferences, inter-office communications, microfilm, bulletins, circulars, pamphlets, studies, notices, summaries, reports, books, articles, treatises, teletype messages, invoices, tape recordings, and work-sheets.

When used with respect to a document, "identify" means, without limitation, to state its date, the type of document (e.g., letter, memorandum, telegram, chart, photograph, sound reproduction, etc.), the author and addressees, the present location and the custodian, and a description of its contents.

When used with respect to a person, "identify" means, without limitation, to state his or her name, address, occupation, and professional qualifications.

If Newman cannot answer any portion of any of the Interrogatories in full, after exercising due diligence to do so, so state, and answer to the extent possible, specifying the inability to answer the remainder and stating when Newman expects to be able to answer the unanswered portions.

NIPSCO'S INTERROGATORIES^{*/}

28. You allege that NIPSCO's proposed remedial program "will not prevent adverse impact upon the National Lakeshore . . ." resulting from "NIPSCO's proposed extended period of construction dewatering."^{**/}
- (a) Please specify the adverse impacts which allegedly will result from the "extended period of construction dewatering" and which you contend cannot be prevented by the proposed water replacement program.
- (b) Is it your position that the impacts identified in your answer to Interrogatory 28(a) cannot be mitigated by the proposed water replacement program?
29. You allege that the "point (or points) of introduction" of replacement water [as proposed in NIPSCO's remedial program] have not been "shown to be capable of maintaining natural water levels within all areas of the National Lakeshore while maintaining a dry excavation to the depth needed and during the additional period of construction time."^{***/}

^{*/} Numbering of the following Interrogatories continues from NIPSCO's Second Set of Interrogatories to Newman (April 23, 1981, refiled May 29, 1981).

^{**/} Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.A., p. 11 (February 26, 1980).

^{***/} Id.

- (a) Please identify the "point (or points) of introduction" to which you refer.
- (b) Please define the phrase "natural water levels" as used above.
- (c) Please define the term "dry excavation" as used above.
- (d) Please state your understanding of the "depth needed" in station datum assuming as a bases for your answer that grade is EL +40'.
- (e) Please specify the length of the "additional period of construction time" to which you refer.
- (f)
 - (1) Please identify and locate "all areas of the National Lakeshore" which you allege will be potentially affected by dewatering of the Bailly excavation during "the additional period of construction time."
 - (2) Please provide the bases for concluding that the "areas" identified in your answer to Interrogatory 29(f)(1) may be affected by dewatering.
 - (3) Please specify the "natural water levels" for "all areas of the National Lakeshore" which you allege will be potentially affected by dewatering of the Bailly excavation during "the additional period of construction time." If the "levels" are different at different "areas," please specify the level for each pertinent area.

(4) Please state the bases for determining the "natural water levels" identified in your answer to Interrogatory 29(f)(3).

(g) Is it your position that NIPSCO's proposed remedial program will not be "capable of maintaining natural water levels within all areas of the National Lakeshore while maintaining a dry excavation to the depth needed and during the additional period of construction time"?

30. You allege that "replacement water levels are not keyed to the natural water table levels, or the natural interdunal pond and wetland levels, including measures to maintain the natural seasonal variations and yearly variations within all areas of the National Lakeshore."^{*}/

(a) (1) Please define the phrase "natural interdunal pond . . . levels" as used above.

(2) Please specify the "natural interdunal pond . . . levels" for "all areas of the National Lakeshore" which you allege will be potentially affected by dewatering of the Bailly excavation during "the additional period of construction time." If the "levels" are different at different "areas," please specify the level for each pertinent area.

^{*}/ Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.B., p. 11 (February 26, 1980).

- (3) Please state the bases for determining the "natural interdunal pond . . . levels identified in your answer to Interrogatory 30(a)(2).
- (b)
 - (1) Please define the phrase "natural . . . wetland levels" as used above.
 - (2) Please specify the "natural . . . wetland levels" for "all areas of the National Lakeshore" which you allege will be potentially affected by dewatering of the Bailly excavation during "the additional period of construction time." If the "levels" are different at different "areas," please specify the level for each pertinent area.
 - (3) Please state the bases for determining the "natural . . . wetland levels" identified in your answer to Interrogatory 30(b)(2).
 - (c)
 - (1) Please define the phrase "natural water table levels" as used above.
 - (2) Please specify the "natural water table levels" for "all areas of the National Lakeshore" which you allege will be potentially affected by dewatering of the Bailly excavation during "the additional period of construction time." If the "levels" are different at different "areas," please specify the level for each pertinent area.

- (3) Please state the bases for determining "natural water table levels" identified in your answer to Interrogatory 30(c)(2).
- (d) Please enumerate the historical and projected ranges of "natural seasonal variations" within the Lakeshore of:
 - (1) "natural water table levels";
 - (2) "natural interdunal pond . . . levels";
 - (3) "natural . . . wetland levels."
- (e) Please enumerate the historical and projected ranges of "natural . . . yearly variations" within the Lakeshore of:
 - (1) "natural water table levels";
 - (2) "natural interdunal pond . . . levels";
 - (3) "natural . . . wetland levels."
- (f) What do you contend will be the probable environmental consequences of a failure to "key" replacement water levels during "the additional period of construction time" to:
 - (1) "natural water table levels";
 - (2) "natural interdunal pond . . . levels";
 - (3) "natural . . . wetland levels"?
- (g) What do you contend will be the probable environmental consequences of a failure to maintain "the natural seasonal variations" in ground water levels in the Lakeshore during "the additional period of construction time"?

- (h) What do you contend will be the probable environmental consequences of a failure to maintain the "yearly variations" in ground water levels in the Lakeshore during "the additional period of construction time"?
 - (i) Please state the bases for your answers to Interrogatories 30(d), (e), (f), (g) and (h).
31. You allege that "[v]ariations of water levels must also be timed to coincide with the timing of natural seasonal cycles"^{*}/
- (a) Please define the term "natural seasonal cycles" as used above.
 - (b) To which "water levels" do you refer in the above quotation?
 - (c) Please provide the bases for the above quoted allegation.
32. You allege that "replacement water will not have the same characteristics as the water removed."^{**}/
- (a) Please describe those characteristics that distinguish replacement water from "the water removed."
 - (b) For each characteristic described in your answer to Interrogatory 32(a), please identify the function or quality which contributes to the unsuitability of replacement water as a means of mitigating effects of dewatering.

^{*}/ Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.B., p. 11 (February 26, 1980).

^{**}/ Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.C., p. 12 (February 26, 1980).

33. You allege that "[t]he natural water has a low flow rate and a long term turnover during which time the water is conditioned by natural processes, such as organic decay."*/

- (a) Please define the term "natural water" as used above.
- (b) What do you contend is the rate of flow of ground water in the Lakeshore adjacent to the Bailly site? If the rate is different at different locations which you contend are likely to be affected by dewatering, please specify the rate at each pertinent location.
- (c) What do you contend will be the rate of flow of replacement water during "the additional period of construction time" at each point of introduction and at each location identified in your answer to Interrogatory 33(b)?
- (d) Is it your position that the flow rate of replacement water during "the additional period of construction time" will be too rapid to permit conditioning through organic decay?
- (e) If your answer to Interrogatory 33(d) is yes, please identify the bases for your conclusion.
- (f) If your answer to Interrogatory 33(d) is no, what is the significance of flow rate to the suitability of the proposed water replacement plan?

*/ Joint Intervenors' First Supplement to Petition for Leave to Intervene, Contention 5.C., p. 12 (February 26, 1980).

- (g) Please identify any other "natural processes" which "condition" the water and describe the effect of each such process on the characteristics of the water.

34. You allege that "water characteristics vary considerably from one location to another, and from strata to strata, or from near surface to greater depths."*/

- (a) Please describe those water characteristics which differ "from one location to another" within the Lakeshore.
- (b) Please specify which of the characteristics listed in your answer to Interrogatory 34(a) you allege will be potentially affected by dewatering of the Bailly excavation and/or ground water replacement during "the additional period of construction time."
- (c) Please describe those water characteristics which differ "from strata to strata" within the Lakeshore.
- (d) Please specify which of the characteristics listed in your answer to Interrogatory 34(c) you allege will be potentially affected by dewatering of the Bailly excavation and/or ground water replacement during "the additional period of construction time."
- (e) Please describe those water characteristics which differ "from near surface to greater depths" within the Lakeshore.

*/ Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.C., p. 12 (February 26, 1980).

- (f) Please specify which of the characteristics listed in your answer to Interrogatory 34(e) you allege will be potentially affected by dewatering of the Bailly excavation and/or ground water replacement during "the additional period of construction time."
- (g) Please enumerate the historical and projected ranges of variations within the Lakeshore for each characteristic described in your answer to:
 - (1) Interrogatory 34(a);
 - (2) Interrogatory 34(c);
 - (3) Interrogatory 34(e).

35. You allege that "removal and replacement of ground water . . . will result in an increased rate of ground water movement, which will dilute and replace the existing water without permitting the normal, slow, natural conditioning from organic processes. The additional period of time will permit a greater dilution and/or replacement of the natural water."*/

- (a) What do you contend will be the "rate of ground water movement" resulting from "removal and replacement of ground water"?
- (b) Please define the term "the existing water" as used above.

*/ Joint Intervenors' First Supplement to Petition for Leave to Intervene, Contention 5.E., p. 12 (February 26, 1980).

- (c) Please specify the dilution of "existing water" which you contend will occur--i.e., specify in quantitative terms the characteristics of "the existing water" before dilution and the characteristics of the water after the alleged dilution.
36. (a) You have referred to "[r]ecent studies by the United States Geological Survey."^{*}/ Please list every such study upon which you relied or to which you referred in drafting Contention 5.E.
- (b) Please list all sections or subsections of the U.S.G.S. studies listed in your answer to Interrogatory 36(a) which indicate that "an underlying strata . . . diminishes in thickness to the point of disappearance, or at least to the point of being ineffectual."^{**}/
37. You allege that "construction site dewatering will drain an aquifer not previously considered and which has a direct connection with the wetlands of the National Lakeshore considerably farther to the east than previously assumed, including the waters of Cowles Bog."^{***}/

^{*}/ Joint Intervenor's First Supplement to Petition for Leave to Intervene, Contention 5.E., p. 12 (February 26, 1980).

^{**}/ Id.

^{***}/ Id.

- (a) Please identify the aquifer to which you refer and describe the location, depth (to the top of the aquifer) and physical dimensions (length, width and height) of the aquifer to which you refer.
 - (b) Please describe and locate the "direct connection with the wetlands of the National Lakeshore" which you allege the aquifer identified in your answer to Interrogatory 37(a) has.
 - (c) Please describe how dewatering during "the additional period of construction time" will affect the aquifer identified in your answer to Interrogatory 37(a), including the length of time required for the effects to be manifested.
 - (d) Please specify the environmental consequences of the postulated draining of the aquifer identified in your answer to Interrogatory 37(a).
38. Please identify each document to which you referred or upon which you relied in formulating Contention 5.* /
39. Please identify each person whom you consulted in formulating Contention 5.** /
40. Please identify each document to which you referred or upon which you relied in answering Interrogatories 28-37.

* / Joint Intervenor's First Supplement to Petition for Leave to Intervene, pp. 11-13 (February 26, 1980).

** / Id.

41. Please identify each person whom you consulted in answering Interrogatories 28-37 giving the following information for each such person:

- (a) Name;
- (b) Address;
- (c) Place of employment and job title;
- (d) Number (including subpart) of each Interrogatory with respect to which that person consulted, aided or provided or furnished information; and
- (e) The nature of the information or aid furnished.

Respectfully submitted,

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