

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



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

PORTER COUNTY CHAPTER INTERVENORS'
THIRD SET OF INTERROGATORIES TO NIPSCO

Porter County Chapter Intervenor (PCCI), by their attorneys, pursuant to 10 CFR §2.740b, hereby serve upon Northern Indiana Public Service Company (NIPSCO) the following Interrogatories to be answered separately and fully in writing under oath by its officer or agent, within 14 days of the date of service.

The term "document" means any writing or recording of any kind, however produced or reproduced, including but not limited to letters, telegrams, memoranda, reports, studies, tape recordings, computer printouts, photographs, calendar and diary entries, minutes, pamphlets, notes, charts, tabulations, and records of meetings, conferences and telephone or other conversations or meetings, which are in the actual or constructive possession, custody or control of NIPSCO or its agents. The terms "you" and "NIPSCO" include Northern Indiana Public Service Company, its agents, employees, representatives, subsidiaries, and those consultants, attorneys, contractors or subcontractors over whom NIPSCO retains control.

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1. Please state the present elevation of the lowest point of the Bailly excavation, expressing such elevation in terms of both true elevation and station elevation.

2. Has there ever been any dewatering (including any diversion of groundwater by drains or pumps of any kind) at the fossil fuel generating plants at the Bailly Generating Station site? If your answer is yes, please state:

- a. The date(s) such dewatering commenced;
- b. The date(s) such dewatering terminated;
- c. The volume of water removed;
- d. The present rate of dewatering; and
- e. The purpose of the dewatering.

3. a. Please state all assumptions concerning the status of NIPSCO's fly ash ponds which you contend were included in each of the following:

- (i) "Soil Parameters Used in USGS Report 78-138," D'Appolonia Consulting Engineers, May 1980;
- (ii) "Assessment of the Influence of Dewatering at Bailly N-1," D'Appolonia Consulting Engineers, November 1980;
- (iii) "Effects of Seepage from Fly-Ash Settling Ponds and Construction Dewatering on Ground-Water Levels in the Cowles Unit, Indiana Dunes National Lakeshore," Indiana, USGS 78-138, January 1979.
- (iv) "Reassessment of the Effects of Construction Dewatering on Ground-Water Levels in the

Cowles Unit, Indiana Dunes National Lakeshore, Indiana," USGS 80-1105, September 1980; and

(v) The decision of the Atomic Safety and Licensing Board authorizing issuance of the construction permit for Bailly N-1.

b. Please provide the bases for each of the responses to Interrogatories 3(a)(i) through 3(a)(v).

4. Please describe in detail each injection point for NIPSCO's proposed dewatering mitigation system.

5. Please state the proposed flow rate or rates for the replacement water of NIPSCO's proposed dewatering mitigation plan.

6. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO" filed July 8, 1981, in response to Interrogatory 8(a), you stated that "[o]ther localized dewatering will be required for short periods of time in small areas, e.g., for installation of the pump house." For each instance of such "localized dewatering" please:

- a. Identify each location at which such dewatering will take place;
- b. For each such location, state the depth of such dewatering, expressing the depth in both station elevation and true elevation;
- c. State what amount of water will be removed for such instance of dewatering;

- d. State the purpose of such dewatering;
- e. State the length and rate of such dewatering;
- f. For each instance of dewatering, state the effect at each of the points, numbered "1" through "10" with circles around the numbers, on the map attached hereto and marked "Attachment I."*

7. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO" filed July 8, 1981, in response to Interrogatory 8(a) you state "[g]eneral construction dewatering is now being conducted and will be required for the period of time necessary to bring the facility foundations to grade level. This is estimated to be between 18 and 30 months after construction resumes." Please state the bases for your estimation that it will take 18 to 30 months to bring the facility foundations to grade level.

8. Please provide all calculations upon which your responses to Interrogatories 13(a)(1) through 13(a)(4) of People of the State of Illinois' First Set of Interrogatories to NIPSCO are based.

9. Please describe in detail each item of expense presently being incurred by NIPSCO with reference to the Bailly project, giving a description of each item of expense, and the amount incurred for each item of expense during each month for the past six months.

* "Attachment I" is "Figure 2 - Plan Borings and Piezometers - Bailly Generating Station Nuclear 1" from "Assessment of the Influence of Dewatering at Bailly N-1" (D'Appolonia, November 1980), filed November 20, 1980.

10. Please identify each person presently on NIPSCO's nuclear staff, and state a description of that person's professional qualifications.

11. Please describe in detail all changes, refinements or revisions, since the date of issuance of the Bailly construction permit, to the plans or specifications for any of the following components of the proposed Bailly plant:

- a. Containment vessel
- b. Turbine room building
- c. Radwaste building
- d. Service building
- e. Cooling tower
- f. Piping between any of the above buildings or structures

12. In "Northern Indiana Public Service Company's Response to Porter County Chapter Intervenors' First Set of Interrogatories," filed April 8, 1981, in response to Interrogatory 8, you attached a table described as "Table I - NIPSCO LOAD AND CAPABILITY DATE." In that table, you described "Purchase Power - MW" for the years 1980 through 1994. For each such year, please state:

- a. Whether the amounts shown in Table I are the maximum amount of power that can be purchased under the terms of the purchase power agreements,
- b. Whether you are obligated to purchase that amount, or whether your purchase is optional;
- c. If a purchase is obligatory, the number of megawatts which you are obligated to purchase.

13. In footnote (1) of "Table I" referred to in Interrogatory 12, you refer to a "156 MW derating of generating capacity in 1979." Please state the reason for such derating and identify the unit(s) derated.

14. Please explain the reason for each action or situation described in footnote (7) of "Table I" referred to in Interrogatory 12.

15. Does NIPSCO have any plans, stand-by, tentative or otherwise, to reduce future peak electrical demand? If your answer is yes, please describe such plans in detail.

16. Does NIPSCO have any plans, stand-by, tentative or otherwise, to reduce long-term electrical demand on its system? If your answer is yes, please describe such plans in detail.

17. Does NIPSCO have any plans, stand-by, tentative or otherwise, to reduce the rate of growth on its system? If your answer is yes, please describe such plans in detail.

18. a. Using all of the following assumptions, please state what you contend would be the water table level or surface water level at each of the points numbered "1" through "10" with circles around the numbers on "Attachment I" to these interrogatories:

-- Dewatering in 30 months at a rate sufficient to reach the lowest point necessary for construction of the Bailly plant;

-- With the effects of the slurry wall as presently installed;

-- In the absence of any mitigation program; and

- With no seepage from NIPSCO's ash ponds and no dewatering for the sealing of NIPSCO's ash ponds.
 - b. Please state all other assumptions used in calculating your responses to subsection (a), including but not limited to the rate of dewatering assumed, and whether your assumptions include a hydraulic connection between "Unit 1" and "Unit 3".*
 - c. Please give all calculations used in formulating your answers.
 - d. Please state the bases for your answers.
19. a. Using all of the following assumptions, please state what you contend would be the water table or surface water level at each of the points numbered "1" through "10" with circles around the numbers, on "Attachment 1" to these interrogatories:
- Dewatering for 30 months at a rate sufficient to reach the lowest point necessary for construction of the Bailly plant;
 - With the effects of the slurry wall as presently installed;
 - With NIPSCO's proposed mitigation program; and

* For the purpose of answering these Interrogatories, NIPSCO may assume that "Unit 1" and "Unit 3" refer to those units so described in USGS reports 78-138 and 80-1105.

-- With no seepage from NIPSCO's ash ponds and no dewatering for the sealing of NIPSCO's ash ponds.

- b. Please state all other assumptions used in calculating your responses to subsection (a), including but not limited to the rate of dewatering assumed, and whether your assumptions include a hydraulic connection between "Unit 1" and "Unit 3."
- c. Please give all calculations used in formulating your answers.
- d. Please state the bases for your answers.

20. a. Using all of the following assumptions, please state what you contend would be the water table level or surface water level at each of the points marked "1" through "10" with circles around the numbers on "Attachment I" to these interrogatories:
- Dewatering for 30 months at a rate sufficient to reach the lowest point necessary for construction of the Bailly plant;
 - In the absence of the slurry wall;
 - In the absence of any mitigation program; and
 - With no seepage from NIPSCO's ash ponds and no dewatering for the sealing of NIPSCO's ash ponds.
- b. Please state all other assumptions used in calculating your responses to subsection (a), including but not limited to the rate of dewatering assumed and whether

your assumptions include a hydraulic connection between "Unit 1" and "Unit 3."

- c. Please give all calculations used in formulating your answers.
- d. Please state the bases for your answers.

21. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO," in response to Interrogatory 14(b)(1), you state, "When construction has resumed...a deep well point system will be installed." Please describe in detail the "deep well point system" to which that response refers.

22. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO," in response to Interrogatory 14(b)(2), you state, "The deep well point system will reduce hydrostatic pressures in the confined aquifer such that the uplift pressure is less than the overburden pressure." Please define the following terms as used in that response:

- a. The hydrostatic pressures in the confined aquifer;
- b. The uplift pressure;
- c. The overburden pressure.

23. Please describe in detail how the deep well point system referred to in Interrogatory 22 above will reduce hydrostatic pressures in the confined aquifer.

24. Does NIPSCO have any plans to mitigate the effects of pumping water from the confined aquifer? If your answer is yes:

- a. Please describe such plans in detail;
- b. State how you will determine whether to put such plans into effect; and
- c. State all data on which you base your response to Interrogatory 24(b).

25. Does NIPSCO have any plans to mitigate the effects of pumping water from the unconfined aquifer? If your answer is yes:

- a. Please describe such plans in detail;
- b. State how you will determine whether to put such plans into effect; and
- c. State all data on which you base your response to Interrogatory 25(b).

26. Please describe all chemical and physical characteristics of the following:

- a. The ground water in Unit 1 on the Bailly site;
- b. The ground water in Unit 1 within the Indiana Dunes National Lakeshore;
- c. The ground water in Unit 3 on the Bailly site;
- d. The ground water in Unit 3 within the Indiana Dunes National Lakeshore.

27. Please state the basis for each response in Interrogatory 26, and, if your response was based on tests, studies, or samples state the date(s) of all such tests, studies or samples, and by whom each test, study or sample was performed.

28. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO," in response to Interrogatory 18(a) you state, "NIPSCO has conducted 9 test programs during which a total of 251 piles have been utilized for testing purposes." For each of the 9 test programs please state:

- a. A detailed description of the test program;
- b. The subject matter tested;
- c. What NIPSCO expected to ascertain from the test program;
- d. The date the test program was first proposed;
- e. The person or organization proposing the test program;
- f. The date the test program was conducted;
- g. The results of the test program;
- h. A description of all documents on which you relied in answering this Interrogatory.

29. In "Northern Indiana Public Service Company's Response to the People of the State of Illinois' First Set of Interrogatories to NIPSCO," in response to Interrogatory 18(h), you state, "the effects of any hydraulic interconnections between Units 1 and 3 will be controlled by (1) depressurizing Unit 3, (2) installing densification piles, and (3) using filter material." For each of the three proposed methods of "controlling" the effects of hydraulic interconnections, please state:

- a. A detailed description of the method;
- b. When and under what circumstances NIPSCO expects to employ that method;
- c. How that method will "control" the "effects of hydraulic interconnections."

30. Please state the bases for your response to Interrogatories 19(a) through 19(c) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO.

31. Please state the bases for your response to Interrogatories 20(a)(1) through 20(a)(4) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO.

32. Please state the bases for your response to Interrogatory 23(a) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO.

33. Please state the bases for your response to Interrogatory 24(a) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO.

34. Please state the bases for your response to Interrogatory 25(a) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO.

35. With reference to your response to Interrogatory 26(a) of the People of the State of Illinois' First Set of Interrogatories to NIPSCO, please state the bases for:

- a. Your response that "in theory" dewatering at the Bailly site could result in subsidence of subsoil structure at Bailly;

- b. Your statement that "the proposed method of dewatering at the Bailly site is designed to preclude subsidence of subsoil structures at Bailly."

36. Please provide the following information for NIPSCO's system for each of the years from 1973 through 1980:

- a. Peak load;
- b. Net installed capacity
 - (i) With peaking units;
 - (ii) Without peaking units;
- c. Purchased power;
- d. Total capacity;
- e. Total reserve; and
- f. Percent reserve.

37. In "Northern Indiana Public Service Company's Response to Porter County Chapter Intervenors' First Set of Interrogatories, in response to Interrogatory 7, you stated "NIPSCO believes that a minimum reserve margin of 20% excluding combustion turbines [footnote omitted] is the minimum reserve margin required to maintain minimum system reliability." Please state the bases for this statement.

38. What was NIPSCO's estimate of the minimum reserve margin required to maintain minimum system reliability at the time it made application for a construction permit for Bailly N-1?

39. What was NIPSCO's estimate of the minimum reserve margin required to maintain minimum system reliability at the time of the issuance of the construction permit for Bailly N-1?

40. Please state the basis for your response to Interrogatory 14 of Porter County Chapter Intervenor's First Set of Interrogatories to NIPSCO.

41. Please state the basis for your response to Interrogatory 15 of Porter County Chapter Intervenor's First Set of Interrogatories to NIPSCO.

42. In your response to Interrogatory 7 of Porter County Chapter Intervenor's Second Set of Interrogatories to NIPSCO, you state, "67 geological investigations are referenced in the PSAR and 21 geological investigations were referenced in the testimony of NIPSCO witnesses during the construction permit hearing." For each such "geological investigation," please provide the citation to the reference in the PSAR, and the page citation to the testimony of the NIPSCO witnesses during the construction permit hearing as referred to in your answer.

43. In your response to Interrogatory 7 of Porter County Chapter Intervenor's Second Set of Interrogatories, you state, "All geologic investigations performed by or for NIPSCO or available to NIPSCO prior to the date of issuance of the construction permit which are in NIPSCO's possession are as follows..." Please state whether there are such geologic investigations which are not in NIPSCO's possession. If your answer is yes, please provide the following information for each such geologic investigation:

- a. A description of the investigation;
- b. The date of the investigation;
- c. By whom it was performed; and
- d. In whose possession the investigation or description or results thereof presently is.

44. Does NIPSCO contend that it lacked authority to perform any tests of pilings or other foundation systems for the Bailly facility prior to the issuance of the Bailly construction permit? Please state the basis for your answer.

45. Did NIPSCO perform any tests of pilings or other foundation systems prior to the issuance of the Bailly construction permit?

- a. If your answer is yes, please state:
 - (i) The locations where such tests were performed;
 - (ii) The reason for each test;
 - (iii) A description of each test and the date on which it was performed; and
 - (iv) The result of each test;
 - (v) A description of all documents which relate to each test.
- b. If your answer is no, please state the reason(s) why such tests were not performed.

46. Did the NRC or its staff, or any of NIPSCO's contractors, subcontractors or consultants advise NIPSCO to perform piling tests prior to the issuance of the Bailly construction permit? If your answer is yes, please state:

- a. The person or organization who so advised;
- b. The nature of such test;
- c. NIPSCO's response to such advice; and
- d. The reason for NIPSCO's response.
- e. Identify all documents relied on in answering this Interrogatory.

47. In a letter from E.M. Shorb to Robert L. Tedesco, Assistant Director of Licensing, dated July 3, 1981, served on all parties by counsel for NIPSCO under letter dated July 6, 1981, it is stated, "in response to a request by Mr. M.D. Lynch, Project Manager for Bailly, we are providing the following information..." With respect to the "request" referred to, please state:

- a. A complete description of the request;
- b. Whether such request was oral or in writing;
- c. The date of such request;
- d. The reason for the request; and
- e. To whom at NIPSCO the request was communicated.
- f. A description of all documents related to that request.

48. For each type of foundation, and for each method of installation of a foundation type, considered by NIPSCO for Bailly N-1, please state:

- a. A description of the type and/or method;
- b. By whom it was proposed;
- c. The date on which it was proposed;

- d. A description of all tests, investigations and studies prepared by or on behalf of NIPSCO, or relied on by NIPSCO, in relation to the foundation type or method; and
- e. The results of each test, investigation and study listed in your response to Interrogatory 12(d).

49. Please identify the person or organization who installed the peizometers and the relief wells within the Bailly excavation.

50. Please describe all methods of recording ground water levels and ash pond and interdunal pond levels by NIPSCO at all times prior to May 1, 1974.

51. Please describe all pile tests performed by or on behalf of NIPSCO after May 1, 1974. For each test please state:

- a. The locations where such tests were performed;
- b. The reason for each test;
- c. A description of each test and the date on which it was performed; and
- d. The result of each test.
- e. A description of all documents which relate to each test.

52. Please give the following information for the person swearing to the answers to these interrogatories:

- a. Name
- b. Address
- c. Title
- d. Capacity

53. Please give the following information of each person who has provided or furnished information to the person identified in Interrogatory 13, consulted with that person in the preparation of the responses to these Interrogatories, or otherwise aided in the preparation of the responses:

- a. Name
- b. Address
- c. 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.

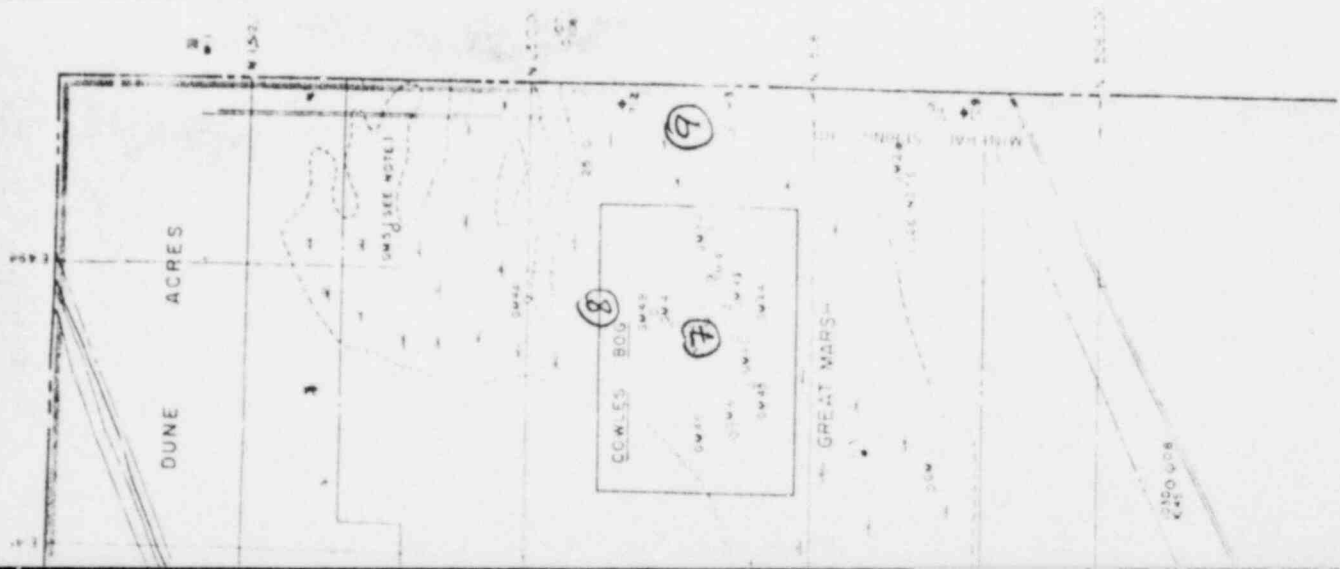
Dated: July 30, 1981

Robert J. Vollen
Jane M. Whicher

by: _____

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