[redacted]

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DARA

APR 26 1979

Docket Nos. 50-599
and 50-600

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Assistant Vice President
P. O. Box 757
Chicago, Illinois

Gentlemen:

The Nuclear Regulatory Commission in conjunction with its review of Part I of your Construction Permit application for Carroll County Station has scheduled a site visit in the vicinity of the proposed site for Wednesday, May 2, 1979. The purpose of this visit is to provide the NRC staff and its technical consultants from the Argonne National Laboratory an opportunity to inspect both the prime site and proposed alternative sites as well as provide an interchange of information between our respective staff members.

A meeting has been scheduled for the afternoon of May 2, 1979 at the offices of the Interstate Power Company, 214 Main Street, Savanna, Illinois, to discuss technical issues related to the environmental review of your application. It is anticipated that a subsequent site visit will be scheduled during the month of June to discuss technical matters related to site safety concerns.

In order to assist the staff in its inspection of the proposed alternative sites to the Carroll Station, it is requested that Commonwealth Edison provide a representative(s) to join us during our visits to these sites on May 1, 3, and 4, 1979.

For your review prior to the site visit, we are enclosing the following: Enclosure 1: Meeting Agenda; Enclosure 2: Principal Questions for Technical Discussion; and Enclosure 3: Site Visit Attendees exclusive of Commonwealth Edison representatives.

2231 513

7906070358

A

If you should have any questions regarding our planned visit, please contact Mr. Clifford A. Haupt of my staff at (301) 492-8434.

Sincerely,

Ronald L. Ballard

Ronald L. Ballard, Chief
Environmental Projects Branch No. 1
Division of Site Safety
and Environmental Analysis

Enclosures:
As stated

2231 314

cc w/encl:

Richard E. Powell, Esquire
Isham, Lincoln and Beale
One First National Plaza
42nd Floor
Chicago, Illinois 60603

Mr. William F. Naughton
Nuclear Licensing Administrator
Commonwealth Edison Company
P. O. Box 757
Chicago, Illinois 60603

Mr. Donald G. Swanson, Chairman
Carroll County Board of Supervisors
Carroll County Courthouse
Mount Carroll, Illinois 61053

The Honorable James R. Thompson
Governor of Illinois
State Capitol
Springfield, Illinois 62706

Attorney General
State of Illinois
Springfiled, Illinois 62701

Illinois Department of Public Health
ATTN: Chief, Division of Nuclear Safety
535 West Jefferson
Springfield, Illinois 62761

Director, Illinois Institute
of Natural Resources
309 West Washington
Chicago, Illinois 60606

EIS Coordinator, Region V
U. S. Environmental Protection
Agency
230 South Dearborn Street
Chicago, Illinois 60604

Chairman,
Illinois Commerce Commission
Leland Building
527 East Captial Avenue
Springfield, Illinois

The Honorable Donald H. Nehrkorn
Mayor of Savanna
City Hall
Main & Washington Streets
Savanna, Illinois 61074

Northwest Illinois Regional Council
of Public Officials
211 First Street
Dixon, Illinois 61081

State Clearinghouse
Bureau of the Budget
Lincoln Tower Plaza
524 S. Second Street, Room 315
Springfield, Illinois 62706

The Honorable Theodore Robbe
Mayor of Mt. Carroll
Mt. Carroll, Illinois 61053

The Honorable Fay Ashby
Mayor of Thomson
Thomson, Illinois 61285

2231 315

Enclosure 1

Carroll County Station Site Visit
Agenda, May 1-4, 1979

Date (Time)	Item
May 1, 1979 (8 am - 5 pm)	Inspect Alternative Sites
May 2, 1979	
(8:30 - 8:45 am)	Pre Site Visit Meeting*
(9 am - 11:30 am)	Inspect Carroll County Site
(11:45 - 12:45 pm)	Lunch
(1 pm - 5 pm)	Technical Discussion*
(5:30 pm)	Adjourn
May 3, 1979	
(8 am - 5 pm)	Inspect Alternate Sites
(12:00 - 5 pm)	
May 4, 1979	
(8 am - 5 pm)	Inspect Alternate sites

2231 316

* Interstate Power Company
214 Main Street
Savanna, Illinois

ENCLOSURE 2

ACCEPTANCE REVIEW: NRC REQUESTS FOR ADDITIONAL INFORMATION REGARDING THE SITE SUITABILITY ENVIRONMENTAL REPORT

CARROLL COUNTY EARLY SITE REVIEW

2231 317

301.0 ARGONNE NATIONAL LAB - TERRESTRIAL BIOLOGY

301.1 Identify by a map the area within the site boundaries classified as prime and/or unique farmlands. Specify the amount of this area to be temporarily disturbed by construction and the amount which will be occupied by operational facilities.

301.2 Provide a map such as Figure 2.2-20 which depicts the site vegetation and land use and also outlines the 475 acres to be disturbed during construction and also indicates those areas to be returned to their natural state after construction.

301.3 Explain the discrepancy between the size of the site as identified in section 2.1.1.2 and many other sections (3,490 acres) and that given in Table 2.2-65 as 2,734 acres. Provide a corrected Table 2.2-65 if necessary.

301.4 Identify how much of each land use classification in Table 2.2-65 will be disturbed during construction and how much of each type will be only temporarily disturbed.

301.5 Was any sampling done to try to determine the presence or absence of bats at the site during spring, summer or fall? If so, discuss the methods used and the results.

301.6 Identify the time of day Emlen bird counts were made and the number of hours per seasonal period spent sampling birds via the Emlen and road count methods.

301.7 Provide data or references to support the conclusion (page 2.2-148) that preferred habitats off site are below carrying capacity so displaced birds would be able to relocate in surrounding areas without significant increases in competition.

2231 318

301.8 What is the proposed width of the corridor for the intake-discharge pipeline? List both the width needed during construction and the final width during operation. Will any road construction or additional areas be needed for construction of the pipeline or will the total 100 acres of disturbed land lie within the pipeline corridor?

301.9 Identify how many man-hours were spent on the biotic survey of the intake-discharge pipeline corridor.

ARGONNE NATIONAL LAB - TRANSMISSION CORRIDORS AND LINES

301.10 Provide a diagram or figure depicting the single-shaft transmission towers and the H-frame towers showing height, width and distance between lines.

301.11 Identify the type of structures to be used for the ISP line.

301.12 Identify the number of acres needed for new or expanded substations associated with the Carroll County lines and the amount of acreage needed for temporary construction areas such as access roads, laydown areas, etc.

301.13 Provide references or other data to support the statement on page 3.9-7, "No long-term disruption to wildlife of this region is expected, since ROW's are ecologically suited to a mixed type of habitat."

301.14 Provide a list of the number of acres of woodland, pasture, cultivated fields and marshland which lie within the four transmission line corridors.

2231 319

301.15 Provide a characterization of the methodology to be used to determine if any federal or state listed endangered or threatened plants or animals occur within the proposed transmission ROW.

301.16 Discuss under what circumstances clear-cutting will be used for construction of the transmission lines.

301.17 Discuss the method(s) to be used to control vegetation where the transmission lines pass through wooded areas. If herbicides are to be used, specify the type and frequency of application.

301.18 To what extent (# of miles) will the transmission lines parallel other utility corridors?

301.19 Provide a list of the number of rivers, streams, highways, railroads, other transmission lines and pipelines crossed by the proposed transmission line routes. Also indicate the number of buildings within the proposed corridor and those within 1/4 mile of the corridor. Include a list of all natural areas, wildlife refuges, state and county parks and recreation areas within 1 mile of the proposed corridor.

301.20 Provide maps such as seven and one-half minute topographic maps with the proposed corridor outlined.

ARGONNE NATIONAL LAB - HEAT DISSIPATION SYSTEM

301.21 Provide a cumulative distribution curve for wet bulb temperature for each month for nearest weather station with long term data.

301.22 Provide a typical natural draft cooling tower design curve (cold water temperature as a function of wet bulb temperature) such as that for the towers at the Byron Station.

301.23 Describe geometry and purpose of relief holes on the blowdown discharge pipe (Figure 3.4-4).

301.24 Provide preliminary results of the physical model test conducted at the Institute of Hydraulic Research as soon as they are available.

301.25 Provide information on alternate cooling tower designs.

301.26 Describe in detail (or reference) the models used to calculate plume and drift impacts from the cooling towers. Identify the data base used in the calculations (meteorological data, tower parameters, etc.).

301.27 Describe the criteria used to select natural-draft cooling towers over other closed-cycle systems.

301.28 For each of the suggested alternate site, indicate the preferred mode of cooling.

ARGONNE NATIONAL LAB - CHEMICAL AND BIOCIDE DISCHARGES

301.29 Please define "Ryznar Stability Index" (p. 3.6.1) and/or provide literature reference. Does this parameter relate to the degree of saturation with $CACO_3$ as with the Langelier Saturation Index? If so, describe the relationship.

301.30 Please provide the average volume and composition of the chemical waste water (demineralizer waste, etc.) added to the blowdown before discharge.

ARGONNE NATIONAL LAB - AQUATIC ECOLOGY

301.31 What type of intake will be used and how effective will it screen river biota, especially fish larvae?

301.32 Should the notation given on page 2.2-8 of the SSER be $100m^3$ instead of $100m^2$?

301.33 Will the intake and/or discharge be located in a fish nursery area, or in an area(s) of relatively high ichthyoplankton density?

301.34 Please discuss the purpose of Spring Lake. Why is the dike broken, and what is the reason for the location of the break? Also, please discuss data obtained from Station 5 (at the break in the dike), and its biological significance insofar as the Carroll Co. Station intake and discharge impacts are concerned.

301.35 What will be the impact of chlorination (of the condensers) on the ichthyoplankton?

301.36 If available, please supply the following references:

P. 13.0-5 1st 3 refs

P.13.0-6 2nd ref., from top of page, and last ref.

P. 13.0-7 Last ref.

P. 13.0-12 2nd ref. from top of page.

P. 13.0-13 Ref. #5 (on that page).

P. 13.0-14 Next to last ref.

P. 13.0-15 Last ref., and 3rd from last ref.

P. 13.0-16 5th ref. from top.

P. 13.0-18 2nd and 4th from last references.

P. 13.0-19 1st reference.

P. 13.0-20 All available references (8 in number) by Helms.

P. 13.0-21 Ref #5 from top of page, and refs. 2 & 3 from bottom of page.

P. 13.0-22 Refs. 3, 4, and 6 from top of page.

P. 13.0-23 Last reference.

2231 022

301.37 Provide a detailed discussion of the field methods, analysis, and results of the survey on the plant property and transmission corridor. Include a discussion of the chronology, structure and function of all cultural resources found and evaluated during this study including surface and sub-surface evidence. Provide the basis for the evaluation of each resource. Include consideration of resources that may be important to the religious cultural rights and practices of Native Americans.

301.38 Provide a more specific profile of the prehistory and history of the local area including information on the ethnohistory. Provide available state and county lists or registers of important cultural resources, chronology, etc. that have been listed including prehistoric resources.

301.39 Provide a monitoring/mitigation plan which includes a program for protecting and preserving the cultural resources that may remain on the plant property and in the transmission corridor. This program must consider both direct and indirect impacts of station construction and operation.

301.40 Will plant construction and operation have indirect impacts on cultural resources surrounding the plant property? If so, how will these resources be protected?

2231 323

340.0 ENVIRONMENTAL TECHNOLOGY - ENVIRONMENTAL SPECIALISTS

340.1 (2.6) Figures 2.3-20 and 2.4-1 suggest that the entire Pool 13 is included in the Upper Mississippi River National Wildlife Refuge or in the Upper Mississippi River Wildlife and Fish Refuge. Table 8.4-64 lists the refuge as a recreational and scenic resource of Carroll County, Illinois. No further description of the impact on the refuge, in terms of reduced recreational or scenic values, is presented in the text of Sections 4, 5, 8 and 9. Neither this Section nor Section 2.2 mention the refuge as an attribute of the site ecology. As a result please provide the following information:

1) Describe the Upper Mississippi River National Wildlife Refuge and the Upper Mississippi River Wildlife and Fish Refuge in terms of geographical extent and implications of their designation as refuges.
2) Discuss any conflicts with the goals and objectives, implied by the refuge designation, due to the construction and operation of intake and discharge structures at the proposed location.

340.2 (3.4) There is a discrepancy in the estimated maximum blowdown rate given in various sections:

Section 3.4.1 - "maximum...5.35 cfs per unit"
Section 5.1.2 - "...should not exceed 25 cfs"
Section 5.1.3 - "should not exceed 30 cfs"
Section 5.7.1 - "annual blowdown range of 10 to 50 cfs will eventually be returned to the Mississippi River"

Please rectify the apparent discrepancy in estimated maximum blowdown rate.

2231 324

340.3 (3.4) Is the discharge system being designed for 4-unit operation?

340.4 (9.2.3.3.2) Step 2 of Phase 2 includes as a "siting issue" the topographic relief criterion that "areas of widespread...relief having numerous natural grades exceeding 15 percent" be excluded. Is there any environmental basis for this criterion being exclusionary?

340.5 (9.2.3.4.1) One attribute of the identified potential sites is "relatively flat topography". It would appear that the Argo Fay (A1) site has this attribute since it is one of the 16 potential sites. However, in Section 9.2.3.4.3, the Argo Fay site is "deferred" because "a significant portion of the site is marked by high topographic relief which is a non-exclusionary criterion that would inhibit site flexibility". Explain the apparent discrepancy between Sections 9.2.3.4.1 and 9.2.3.4.3 in regard to the Argo Fay site.

340.6 (9.2.3.4.1) Explain what "site flexibility" is inhibited by 10% or 15% slopes.

340.7 (9.2.3.5.2) In the screening of land use compatibility, only Carroll County shows an obvious conflict, i.e., with a proposed expansion of the Stransky Memorial Airport. Table 9.2-2 indicates that the Evaluation Parameter is "yes or no" with the Rating Value from 1 (most compatible) to 5 (least compatible). To be consistent with the other two "yes or no" parameterized siting issues, Carroll County would have to receive a rating of 5 (least compatible). In terms of land use compatibility, why hasn't Carroll County assigned a value of 5 since it is the least compatible?

2231 325

340.8 (9.2.3.5.2) In the screening of potential sites, three criteria are used to arrive at the combined site suitability rating for aquatic ecology. Were the three criteria given equal weight in the combined rating? If not, provide bases for combined rating.

340.9 (9.2.5.5) The Applicant states that "Development of the Carroll County site, which is planned for at least four units, would enhance CECo's future siting options." In regard to site suitability and alternative site analysis, shouldn't the assumption for site and plant have been four units instead of two?

340.10 (9.2.5.6) The Applicant concludes that "...the Carroll County site should be developed before Units 3 and 4 at LaSalle because it...establishes a site that may not otherwise remain available for future siting needs...". Since the Applicant owns essentially all of the Carroll County site, the basis for this conclusion is unclear. Clarify the basis for the conclusion reached in Section 9.2.5.6 (Item e).

2231 326

350.0 ENVIRONMENTAL TECHNOLOGY - COST-BENEFIT ANALYSIS

350.1 (8.2.1.1) The peak annual average daily work force for the proposed Carroll County Station is estimated to be 2,155. This estimate is based on four CECo nuclear power plants, three of which are currently under construction while the fourth is operating. Forecasts made by the Construction Manpower Demand System (Energy Sector), a program sponsored by the U.S. Department of Labor, indicate that work-hours per kilowatt in the construction of nuclear power plants will increase between 1977 and 1981. Given this trend toward increased manpower requirements, the Applicant should justify the use of manpower data from the 1970's for a plant that would reach peak construction activity in the 1980's? (NB: The staff believes that the Applicant has substantially underestimated peak construction manpower requirements).

350.2 (8.2.1.5) The Applicant should identify the construction worker studies at Byron and LaSalle which are discussed on p. 8.2-7. Also, copies of such studies should be provided to the NRC staff.

350.3 (8.2.1.5) The last sentence on p. 8.2-7 indicates that many studies have concluded that excess capacity exists in small town businesses. The Applicant should provide NRC with a short list of such studies.

350.4 (8.2.1.5) The Applicant should specify the analysis that was undertaken to arrive at a multiplier of 1.3 presented on p. 8.2-8. Also, the Applicant should provide the factual basis for concluding that one-third of the induced jobs would be filled by spouses of the construction workers, one-third by residents, and one-third by migrants.

350.5 (8.2.1.7) The allocation given on p. 8.2-9 relative to in-moving construction workers to type of housing is based on studies of the Byron,

LaSalle, and Watts Bar construction sites. Such an allocation would have increased validity if the housing market in the Carroll County impact area is similar to that found at the three sites mentioned above. The Applicant should indicate if such a comparison was undertaken.

350.6 (8.2.2.2) The Applicant should justify the use of 1.6 given on p. 8.2-13 as the multiplier for induced employment.

350.7 (8.3.1.2) In computing the local tax payments given on p. 8.3-1, has the Applicant taken into account applicable state real property tax laws that would reduce tax liability?

350.8 (8.3.2.2) In the Applicant's analysis presented on p. 8.3-6 does the condition or "standardness" of housing affect the estimate of housing supply?

350.9 (8.3.2.2) Does the Applicant have evidence that housing costs given on pp. 8.3-18/20 escalate as a result of nuclear plant construction? The discussion of escalating housing costs implies that the entire rental and sale stocks of housing would be impacted. However, only those units which are to be sold or rented would be subjected to inflationary pressures and that the numbers of such units is a small percentage of the housing market at any one point in time. Please provide further clarification. The Applicant should also discuss the course of rents and prices during the post-peak construction period. For instance, does the Applicant assume stabilization at the higher equilibrium point for sales and rentals or does the Applicant forecast a subsidence of housing costs to a lower point of market equilibrium?

350.10 (8.3.2.2) The quotation presented (third paragraph) on p. 8.3-30 refers to an MIT study on property values. The Applicant should identify this study.

2231 .28

350.11 (8.3.2.2) The third paragraph on p. 8.3-31 cites NRC and MIT studies on property values. The Applicant should identify these studies.

350.12 (8.3.2.2) What is the factual basis for the statements made in reference to the impact of the construction period on social life (see last paragraph of p. 8.3-33 to the end of the second paragraph of p. 8.3-35).

350.13 (8.3.2.2) The Applicant should supplement Figures 8.3-4 to 8.3-7 with pictures showing the plant from the following viewpoints:

a. the scenic lookout approximately 2 miles east of Savanna;
b. Center Hill School;
c. Mount Carroll residential neighborhood;
d. City of Sabula residential area; and
e. Mount Carroll School.

Where possible, the view should include existing structures in the foreground.

350.14 (9.2.3.5) With respect to the nine developed candidate sites and the two preferred developed sites discussed on p. 9.2-19, the Applicant should provide information on:

a. the origin and availability of the construction labor pool, and
b. anticipated points of vehicular congestion.

350.15 (8.3.2.2) What is the significance of the 5-mile radius as used in the Analysis of Aesthetics referred to on p. 8.3-37?

350.16 (8.3.1) Using the estimated impact region, the Applicant should provide a breakdown of estimated procurement expenditures that will be spent during the construction period. This information should indicate the year of expediture by the county within the expenditure will be made and by the four-digit industry code (Standard Industrial Classification Manual). This submission should also

indicate the year the dollars are expressed in and the escalation rates applied to each category.

350.17 (8.3.1) On separate tables, the Applicant should provide a breakdown of the payroll of direct and secondary employment for each year of construction and by the county of residence of workers. Indicate whether the dollar amounts are current or deflated. Provide the year dollars are deflated to and supply the relevant escalation rates applied to labor costs.

2231 530

361.0 SITE TECHNOLOGY - GEOSCIENCES

361.1 (2.5) The primary means of assessing the adequacy of the Applicant's geologic, seismologic and geotechnical engineering screening of sites is by use of reconnaissance-level information. It is not apparent in Chapter 13.0, pp. 13.0-38 and 13.0-39, that anything other than a very generalized reference source was used by the Applicant in the site selection process. On this basis, provide a Data Sources Index Map using a base similar to Fig. 9.2-10. On this base plot:

a. Developed and Undeveloped sites

b. Identify, where feasible, the geographic area described in the data sources actually used.

c. Provide a list of the sources used in the reconnaissance-level analysis.

d. Provide the staff a copy of the cited references, if available.

361.2 (2.5) As presented in Appendix 9.2C, geologic cross-sections and other site specific alternate site information has been extracted from various Sargent and Lundy reports. Please provide the following reports:

a. Site Investigation of Areas Along the Mississippi and Lower Illinois Rivers, August, 1974, Report Number 3104.

b. Erie Site Geotechnical Evaluation, May 1975, Report Number 3189.

c. Preliminary Geotechnical Evaluation of the Proposed Gladstone North and Rozetta West Sites, April 1975, Report Number 3193.

d. Geotechnical Evaluation at Quad Cities Site, March 1977, Report Number 3299.

2231 331

361.3 (2.5) In addition to the references listed in Question 361.2, several unlisted data sources appear on the following figures. Provide the information as noted in Items (a) and (b):

a. Plot Plan, Bedrock Topography, Quad Cities Site - Provide the borings completed by Soil Testing Services of Iowa, Inc., in September, 1972. Provide the borings completed as part of the Sargent and Lundy Site Study, October, 1976.

b. Plot Plan, Granville South Site - Provide the report containing the borings depicted on this figure.

361.4 (2.5) Provide one copy of each of the USGS quadrangle maps (7-1/2" or 15' as appropriate) within 15 miles of each of the candidate sites (Appendix 9.2C). Also, incorrect quadrangle maps are listed on the Candidate Site Evaluation Data Sheets and elsewhere for several of the Candidate Sites. For instance with the respect to the Hillview (H1) Site, the quadrangle listed is the Roodhouse (15) quadrangle (page 9.2C-42). The Topographic Map, Hillview Site references the Truncy quadrangle. The staff finds that neither of these is correct. The Pearl quadrangle appears to be the quadrangle within which the Hillview site is located. Please explain or correct as noted.

2231 332

371.0 SITE TECHNOLOGY - HYDROLOGICAL ENGINEERING

371.1 (2.4.2.4) Provide the bases for the statement that, "There will be no offsite effects due to construction dewatering for the main plant excavations." Discuss the aquifers involved, the flow rates and radius of influence with methods of analyses and pertinent parameters. Where will the effluents be discharged and what will be the effects on the receiving stream? Also identify, for each aquifer involved, the nearest offsite well and confirm that it will not be affected.

371.2 (6.1.1) Provide a map that shows the bathemetry for the monitoring stations.

371.3 (2.4.1) Provide a discussion and history of ice depths and accumulation on the Mississippi River and affects on the intake structure and station operation.

371.4 (2.4.2.4, 4.1.2, 4.1.3) Discuss the disturbance of the surface and ground-waters and shoreline of the Mississippi River due to the construction of the intake and discharge structures. Where earth cofferdams are proposed, provide the magnitude and areal extent of changes in turbidity and associated damage. The construction dewatering affects should be discussed in detail. Provide methods of analyses and parameters for determining flow rates and zones of influence. Provide a list of affected wells, the duration of affect, and any proposed mitigation. Candidate site evaluations and comparisons should include discussions relevant to the following hydrologic features:

a. Flooding potential and required flood protection.
b. Availability of water supply and effect on station operation (potential for power reduction due to limited water supply). Consider upstream and downstream water rights.

2231 333

c. Construction and operation influence on local groundwater supply and quality. Please provide a discussion of these items.

371.6 (2.4) Provide, in support of the calculated radiological doses for App. I, dilution factors, travel times and hydrologic bases at the edge of the mixing zone and at all municipal water intakes from the release point to 50 miles downstream.

371.7 (2.4) The small tributary stream just east of the plant site will be blocked by a cooling tower. Provide a description of the stream and discussion of the consequences of blocking and re-aligning the stream channel.

371.8 Item 48 of the Proposed Findings states that, "The applicant has demonstrated by calculation that onsite pumping will not significantly affect groundwater levels..." The staff has not found any calculations on zone of influence or flow rates for either onsite wells or construction dewatering. Provide a reference for the section where the calculations can be found.

371.9 (5.1.3.2) Provide thermal mapping to quantify the areal extent of the thermal plume. Also provide vertical temperature profiles for 2 unit operation at full power. Provide a detailed description of models and parameters used and bases thereof.

2231 334

372.0 SITE TECHNOLOGY - METEOROLOGY

[Questions 372.1 through 372.3 and 372.5 through 372.9 have also been included in Enclosure 1 regarding the Site Suitability Site Safety Report. Responses to these questions should be cross referenced or duplicated.]

372.1 (2.3.1) On page 2.3-3 it is stated that "the prevailing wind at both Moline (1967-1976) and Rockford (1966-1975) is southerly". This differs considerably from the prevailing direction of WNW given in Table 2.3.1. Explain the discrepancy between these wind directions.

372.2 (2.3.5) To ensure that the time period for onsite data collection was not an anomalous period, provide the wind direction and wind speed frequencies for Rockford and Moline for the period from August 1, 1976 to July 31,1977.

372.3 (2.3.5) As discussed in Section 2.8 of NUREG-0158, "Environmental Standard Review Plans for the Environmental Review of Construction Permit Applications for Nuclear Power Stations" (Part 1, January, 1977), onsite meteorological data should be available on magnetic tape. Having access to onsite meteorological data would facilitate the review of atmospheric dispersion characteristics. If available, provide onsite meteorological data for the period August 1, 1976 through July 31, 1977 in the form of hourly averages on magnetic tape using the format given in Attachment 1.

372.4 (5.1.4) Provide a brief description of the cooling tower model used to determine visible plume and drift from the natural and mechanical draft cooling towers.

2231 535

372.5 (6.1.3) The differential temperature range is given as -5°C to +5°C (page 6.1-43). Since positive temperaure differences often exceed the value of +5°C, how are these data recorded?

372.6 (6.1.3) What is the time interval between sampling of each of the meteorological variables recorded on magnetic tape? How many of these samples are needed to constitute an acceptable hourly average?

372.7 (6.1.3) Provide the dates and times of significant instrument outages (e.g., greater than 24 hours or recurring), the causes of the outages, and the corrective actions taken.

372.8 (6.1.3) Give the fraction of meteorological data obtained from analog charts that was used to replace invalid data from the digital system.

372.9 (6.1.3) Provide the criteria used to determine invalid meteorological data.

2231 336

Enclosure 3

Site Visit Attendees*

Name	Affiliation	Responsibility
Clifford A. Haupt	NRC	Project Management
Charles Billups	NRC	Aquatic Ecology
Richard Goddard	NRC	Legal
George L. Montet	ANL	Environmental Review Team Leader
Edward Daniels	ANL	Aquatic Ecology
Jim Carson	ANL	Meteorology
Gary Marmar	ANL	Thermal Discharge
Sue Anne Curtis	ANL	Cultural/Historical
Katherine Hoekstua	ANL	Terrestrial Ecology
D. A. Brodnick	ANL	Alternative Sites, Socio-economics, Need for Power

*Representatives from the U. S. Corps of Engineers, the U. S. EPA and the U. S. Department of the Interior (Fish and Wildlife Service) may also attend.

2231 337