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June 4, 2004

AEP:NRC:4034-03
10 CFR 51.53(c)

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

SUBJECT: Donald C. Cook Nuclear Plant Units 1 and 2
Docket No. 50-315 and 50-316
Supplemental Information for the Donald C. Cook Nuclear Plant Applicant's Environmental Report - Operating License Renewal Stage (TAC Nos. MC1221 and MC1222)

Dear Sir or Madam:

By letter dated October 31, 2003, Indiana Michigan Power Company (I&M) submitted an application to renew the operating licenses for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2. Appendix E to this license renewal application contained the Applicant's Environmental Report – Operating License Renewal Stage, which is also referred to as the ER.

In accordance with National Environmental Policy Act of 1969 requirements, the Nuclear Regulatory Commission (NRC) review of the ER includes a scoping phase, during which time the NRC Staff obtain information necessary to prepare a supplemental environmental impact statement. As part of the scoping process, the NRC Staff and contractors visited the CNP site on March 9 and March 10, 2004, reviewed on-site CNP environmental documentation, and held meetings with CNP site personnel. During the conduct of the site visit and subsequent to conversations between I&M and NRC Staff, it was requested that I&M provide additional information to supplement the information reported in the ER.

This letter provides the requested information, with one exception. I&M will submit under separate cover, information pertaining to the Company's practices for notification of Federal and/or State agencies upon identification of threatened or endangered species bird mortalities or problem nests along the transmission corridors.

Attachment 1 provides the supplemental information requested by NRC Staff. Attachment 2 provides a table identifying the new commitments contained in this submittal.

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Should you have any questions, please contact Mr. Richard J. Grumbir, Project Manager, License Renewal, at (269) 697-5141.

Sincerely,

M. K. Nazar
Senior Vice President and Chief Nuclear Officer

GEW/rdw

Attachments: 1. Supplemental Information for the Donald C. Cook Nuclear Plant Applicant's Environmental Report - Operating License Renewal Stage
2. List of Regulatory Commitments

c: R. G. Schaaf, NRC Washington DC
J. L. Caldwell, NRC Region III
K. D. Curry, AEP Ft. Wayne, w/o attachments
J. T. King, MPSC, w/o attachments
J. G. Lamb, NRC Washington DC
MDEQ – WHMD/HWRPS, w/o attachments
NRC Resident Inspector

Supplemental Information for the Donald C. Cook Nuclear Plant Applicant's Environmental Report - Operating License Renewal Stage

In accordance with National Environmental Policy Act of 1969 requirements, the Nuclear Regulatory Commission (NRC) review of the Donald C. Cook Nuclear Plant (CNP) Applicant's Environmental Report - Operating License Renewal Stage (ER) includes a scoping phase, during which time the NRC Staff obtain information necessary to prepare a supplemental environmental impact statement. As part of the scoping process, the NRC Staff and contractors visited the CNP site on March 9 and March 10, 2004, reviewed CNP on-site environmental documentation, and held meetings with CNP site personnel. During the conduct of the site visit and subsequent to conversations between Indiana Michigan Power Company (I&M) and NRC Staff, it was requested that I&M provide additional information to supplement the information reported in the ER.

Environmental Stewardship of the CNP Site and Environs

The CNP site is located in a unique and beautiful area of southwestern Michigan. The glacial periods left towering sand dunes and small wetlands throughout our small site nestled in the hardwoods along Lake Michigan's shore. CNP's staff take great care in managing the site to maintain the natural areas and restore many areas that have been disturbed during construction, while also enhancing many of the natural areas on the site.

The Energy Information Center in the northwestern corner of the site has been enhanced with bird feeders, a butterfly garden, and nature trails to allow visitors to observe and explore the dune land ecology and observe the many birds, insects, and animals that live on the site. Wood duck boxes and bluebird boxes have been placed throughout the site and small mammal home sites have been created using fallen trees along the border of cleared areas to attract wildlife. The CNP site is home to many migratory waterfowl, white tail deer, red fox, turkey, turtles, and coyote, along with many other animal species. A raptor platform was constructed on-site in hopes of attracting birds of prey that frequent the area. Earthen berms have been built along the creek that runs through the property and along roadways to protect the wetlands and waterways from silt damage. The hundreds of acres of hardwood trees on site have been intentionally left in their natural state for the wildlife in the area and I&M does not use these trees for their rich timber value.

The Wildlife Habitat Counsel Lands for Learning has certified the Energy Information Center for its environmental stewardship. This environmental stewardship is demonstrated by taking hundreds of school groups on our nature trails each year and teaching them about the geologic history and nature in the area. The site has been used several times for the Audubon Christmas bird count census. We have restored and planted prairie plants, wildflowers, and native wild grasses on almost 10 acres of land that was disturbed during plant construction.

The CNP staff is routinely involved in Earth Day events in the community and has planted many mature trees at four different school districts in our area. Over 3,000 seedlings were given away to plant employees and the community to celebrate the 25th anniversary of Earth Day. Monetary and professional services have been donated to local community groups to establish protected nature areas, such as Chikaming Woods south of the plant, and to help the City of St. Joseph in planning efforts for their natural area.

Implementation of a Fish Deterrent System

In 2003, following the April 2003 alewife intrusion event, I&M installed an acoustic fish deterrent system. The system was designed and manufactured for CNP by BAE Ocean Systems (now Ultra Electronics - Ocean Systems) of Braintree, MA. The system is targeted specifically at the alewife populations that are attracted to warm shoreline waters in the spring each year as they come to feed and spawn. The system uses an array of 36 integrated projector assemblies (IPAs) to emit sound energy pulses at frequencies between 122 and -128 kHz, which has been shown to produce a strong alewife avoidance response. The IPAs are mounted on each of the three circulating water system intake cribs to provide 360 degree coverage from the water surface to the lakebed, with sound pressure levels of 170dB//μPa extending out at least 10 meters from the perimeter of the three intakes. Power is supplied to each of the IPAs from three control cabinets located on-shore in a control house. The power cable is routed from the control house to the south intake crib via buried conduit and then on the lake bottom from the south crib to the center and north cribs. The main power cables terminate on a distribution box mounted on each crib from which dedicated cables are routed to each of the crib-mounted IPAs. The IPAs are installed each spring and removed in the autumn to protect them from winter ice damage.

Enhancements to the Traveling Screen System

In the past, CNP has experienced operational problems due to a phenomenon referred to as "debris carryover" on the traveling water screens. Debris carryover occurs when spray wash is unable to remove all of the debris from a through-flow-style traveling water screen basket. The debris not removed by the spray wash is carried over to the plant side of the screens where the water flowing through the screens carries it to the pumps drawing water from the lake. The carry-over material consists of leaves, zebra mussel shells, trash, and alewife debris. CNP is in the process of modifying the traveling water screens and screen wash system. Plans are in progress to replace 14 existing through-flow traveling water screens with Geiger MultiDisc® through-flow screens whose design eliminates the "carryover" of debris, thereby improving the reliability of the circulating water and essential service water systems. Two traveling water screens have been replaced in a pilot study and the remaining 12 screens are scheduled to be replaced by the end of 2004. Flow velocities in the circulating water system remain the same as the existing system such that Clean Water Act Section 316(b) impingement and entrainment compliance is not changed. The two existing screen wash pumps will be replaced with 14

individual screen wash pumps, one for each screen, and two trough wash pumps will be installed to assist in moving the debris to the screen baskets.

Assessment of the Transmission Line Corridor between Collingwood and Robison Park, Indiana

Section 3.1.3, Transmission Facilities, of the ER provides a verbal description of the transmission system that was evaluated to determine the impacts of the CNP license renewal. A map of the transmission system is also provided as Figure 3-2 of the ER. The transmission system that was evaluated for license renewal is somewhat different from that described in the 1973 Final Environmental Statement (FES), primarily as a result of additional circuits that were incorporated into the transmission system after CNP was licensed to operate.

One transmission line corridor that was included in the FES was omitted from the scope of the license renewal evaluations summarized in the ER. The Collingwood switching station, constructed in 1995 approximately 6½ miles north of the Robison Park Substation, segmented the original Cook-Robison Park 345-kilovolt (kV) Twin Branch No. 1 transmission line. Consequently, the 6½-mile section of the Twin Branch No. 1 transmission corridor between the Collingwood and Robison Park Substations was omitted from the scope of the license renewal evaluations. Following submittal of the CNP License Renewal Application, I&M opted to include this corridor in the scope of the license renewal ER. This supplement summarizes the ecological survey and induced current electric shock evaluations that were conducted on the 6½-mile Collingwood-Robison Park transmission line corridor.

Ecological Survey

In March 2004, an ecological survey of the Collingwood-Robison Park transmission line corridor was performed by a biologist contracted by I&M. The objective of the survey was to evaluate the possibility of listed plant and animal species along the corridor.

The term "listed species" as used herein consists of the following:

- Species that the U. S. Fish and Wildlife Service (USFWS) has listed as threatened or endangered in accordance with the Federal Endangered Species Act.
- Species that the USFWS has proposed for listing or made a candidate for listing under the Endangered Species Act.
- Species that are listed as threatened or endangered by the Indiana Department of Natural Resources (IDNR).

The transmission line corridor connects Robison Park substation on the outskirts of Fort Wayne, Indiana, with the Collingwood substation, 6½ miles north of the Robison Park substation. The transmission corridor crosses several public roads and highways. The survey was conducted by

driving to each road/highway crossing, and then walking to areas of potential interest. Such areas were those that appeared to contain potential habitat for listed species. Wildlife and plant species were identified through actual observation, as well as (for wildlife) tracks, scat, and birdcalls. No trapping or other collection of wildlife was conducted.

Most of the 6½-mile transmission corridor consists of agricultural areas (especially cornfields) and suburban areas. The corridor traverses only a few small tracts of forested areas and no natural grasslands. The only significant natural habitat crossed by the corridor is the 0.3-mile segment located along Cedar Creek within Vandolah Nature Preserve, a 45-acre natural area approximately four miles north of Robison Park. The preserve contains wet-mesic floodplain forest along Cedar Creek, mesic upland forest communities with steep ravines, and old fields.

No listed animal or plant species were observed during the one-day survey conducted in March 2004. The results of this supplemental environmental survey support the conclusions of the original surveys performed in support of the development of the ER. Due to the facts that this section of the transmission corridor is no longer associated with the operation of CNP and that I&M has no plans to alter current operations over the license renewal period, I&M concludes that any adverse impacts of operation on threatened or endangered species over the license renewal period would be SMALL and do not warrant mitigation.

Electric Shock Study

I&M also conducted a study of electric fields and induced short-circuit currents under the 345-kV double-circuit tower (DCT) line between Collingwood and Robison Park stations. The Collingwood-Robison Park 345-kV circuit shares its supporting structures with Argenta-Robison Park 345-kV circuit over the entire 6½ mile distance. The study examined electric fields and induced short-circuit currents at nine road crossings and one additional location characterized by the lowest ground clearance along the Collingwood/Argenta-Robison Park DCT line. The assumptions and methodology used for this supplemental study were the same as those used for the earlier study of the remainder to the 345-kv and 765-kV transmission lines, as discussed in the ER, Section 4.13, Electric Shock from Transmission-Line-Induced Currents.

The induced short-circuit currents for the nine road crossings ranged from 1.5 to 2.8 milli-amperes (mA), while the limiting case for the location with the lowest ground clearance resulted in an induced short-circuit current of 3.0 mA. The results of this supplemental study support the conclusions of the original study that the impact of electric shock is of SMALL significance for the CNP transmission lines. This conclusion is based on the determination that the transmission lines that distribute power from CNP to the electric grid continue to meet the National Electric Safety Code criterion for preventing electric shock from induced currents. Due to the small significance of this issue, mitigation measures are not warranted.

Cook Energy Center Attendance

Prior to September 11, 2001, the Cook Energy Center offered in-house catering to local community organizations, weekend theme shows to attract local residents, free walk-in tours, and hiking trails to the general public. Following the events of September 11, 2001, the operational status of the Cook Energy Center has been modified to allow scheduled tours for school groups only, with additional restrictions applied based on the security level. The following attendance records apply to the period between 2000 and 2003:

Year	Overall Attendance	Tour Attendance
2000	61,245	15,332
2001	45,340	12,143
2002	21,626	5,500
2003	5,500	2,410

ATTACHMENT 2 TO AEP:NRC:4034-03

LIST OF REGULATORY COMMITMENTS

The following table summarizes the action committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for information and are not regulatory commitments.

Commitment	Date
I&M will submit under separate cover, information pertaining to the Company's practices for notification of Federal and/or State agencies upon identification of threatened or endangered species bird mortalities or problem nests along the transmission corridors.	June 30, 2004