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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

STATE OF ILLINOIS
Pollution Control Board

IN THE MATTER OF:)
)
THE PROPOSAL OF CENTRAL) R 2-021
ILLINOIS LIGHT COMPANY) (Site Specific Rulemaking – Air)
FOR A SITE SPECIFIC RULEMAKING)
AMENDING 35 ILL. ADM. CODE § 214.561.)

NOTICE

TO: Dorothy Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601

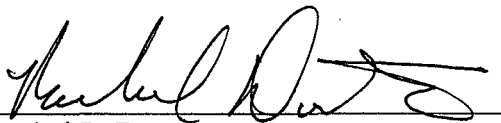
John Knittle, Hearing Officer
Illinois Pollution Control Board
1717 Philo Road, Suite 25
Urbana, Illinois 61802

Jon S. Faletto
Daina M. Jagiella
Howard & Howard Attorneys, P.C.
211 Fulton Street, Suite 600
Peoria, Illinois 61602-1350

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the TESTIMONY OF ROBERT J. KALEEL of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

Date: October 8, 2002

ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY

By: 
Rachel L. Doctors
Assistant Counsel
Division of Legal Counsel

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P.O. Box 19276
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THIS FILING IS SUBMITTED ON
RECYCLED PAPER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
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CENTRAL ILLINOIS LIGHT COMPANY) R 02-021
FOR A SITE SPECIFIC RULEMAKING)
AMENDING 35 IL ADM CODE S214.561) (Site Specific Rulemaking)
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Testimony of Robert J. Kaleel
Manager, Air Quality Modeling
Air Quality Planning Section
Illinois Environmental Protection Agency

October 11, 2002

My name is Robert Kaleel. I am the Manager of the Air Quality Modeling Unit in the Division of Air Pollution Control, Bureau of Air at the Illinois Environmental Protection Agency ("Agency"). I have been employed by the Agency for twenty-one years in the areas of air quality modeling, planning, and regulatory development. I have also worked for a private consulting company in the fields of air pollution modeling and permitting. I have a Bachelor of Science degree in meteorology from Northern Illinois University.

In my current position at the Agency, I am responsible for overseeing the development of dispersion modeling analyses to support various regulatory proposals, including the underlying sulfur dioxide regulations affected by this request for site specific rulemaking. For the matter before us today, I have supervised the Agency's review of the technical information provided by the Central Illinois Light Company (CILCO) in support of this request, including air quality modeling.

The purpose of my testimony today is to explain the basis for the Agency's recommendation in support of this request for site specific rulemaking. I have provided similar testimony to the Board on March 9, 1999 explaining the Agency's position on CILCO's related petition for a variance in PCB 99-80.

CILCO is requesting a site specific rule to amend Section 214.561 of 35 IL Adm. Code, of the Board's Air Pollution Control requirements as they apply to the operation of Boiler No. 2 at CILCO's Edwards Station. CILCO's Edwards Station is located near Pekin. This facility is equipped with three coal-fired electrical generating units. Sulfur dioxide (SO₂) emissions from

Units 1 and 3 are currently limited to 6.6 pounds per million British thermal units (lb/MMbtu) of heat input, while the SO₂ emissions from Unit 2 are limited to 1.8 lb/MMbtu. These limits are contained in Sections 214.141 and 214.561, respectively. Unit 2 is restricted to burning low sulfur coal, while Units 1 and 3 are allowed to burn coal with higher sulfur content. The Edwards Plant is also subject to a plant-wide SO₂ emissions limit of 34,613 pound per hour (lb/hr). CILCO will continue to comply with this current plant-wide SO₂ emissions limit, so the proposed rule change will not result in an increase in plant-wide emissions.

In PCB 99-80, CILCO's request for a variance, the Agency requested that CILCO prepare an analysis to evaluate the proposed emission changes relative to the National Ambient Air Quality Standards (NAAQS) for SO₂.

The NAAQS for SO₂ were established to protect the health and welfare of all citizens. There are actually three such standards for SO₂, which are designed to provide protection from both long and short-term exposures. The short-term limits are 365 and 1,300 micrograms per cubic meter for 24- and 3-hour averaging times, respectively. The short-term limits can be exceeded once per year at any given location without violating the standard. The long-term limit, which is expressed as an annual average, is 80 micrograms per cubic meter. The annual limit can never be exceeded.

In support of its variance petition, CILCO submitted an air quality analysis that demonstrated that air quality in the Peoria region will not be adversely affected by the proposed emissions

changes. CILCO employed QST Environmental, Inc. of Gainesville, Florida to perform the air quality analysis. The air quality analysis, entitled Air Quality Demonstration in Support of a Variance to Burn Higher Sulfur Coal in Unit 2 of the Edwards Station was submitted in December 1998 as part of the petition for variance.

The Agency reviewed the modeling analysis provided by CILCO and determined that the study adequately demonstrated that the SO₂ emissions changes requested by CILCO will not cause or contribute to violations of the National and State air quality standards. QST Environmental used a State and Federally approved regulatory model to address the impacts from the facility. All modeling inputs utilized in the study were consistent with Agency and USEPA guidance, including the use of five continuous years of local meteorological data recorded by the National Weather Service at the Peoria Airport. The study incorporated emissions from other industrial facilities in the area, based on data provided by the Agency. The modeling also addressed the impacts from upwind sources, using background concentrations which were based on ambient monitoring data collected by the Agency at its monitoring station in Pekin.

The modeling analysis shows that under certain meteorological conditions, the proposed emission changes at the Edwards Station can potentially cause short-term impacts that the Agency considers to be significant. For example, the change in emissions at Edwards is shown by the study to potentially cause a net increase of ground level, 3-hour average SO₂ concentrations as high as 93 micrograms per cubic meter. However, this impact, when added to the impacts of all other sources in the area,

results in a total concentration of 376 micrograms per cubic meter, which is well below the 3-hour standard of 1,300 micrograms per cubic meter. Thus, the air quality standard is still protected even during potential, worst case conditions.

It is the Agency's conclusion that the air quality demonstration provided by CILCO in support of the original variance request is still adequate to demonstrate that the air quality standards for SO₂ will not be exceeded as a result of the proposed emission changes at the Edwards Station.

It is important to consider that the Acid Rain Program has resulted in substantial reductions of SO₂ emissions from the Edwards Station from the time that the initial variance petition was submitted. According to USEPA's Acid Rain database, the Edwards Station emitted approximately 72,000 tons per year of SO₂ in 1999, which is the year that the Board granted CILCO's variance. By 2001, the Edwards Station emitted about 50,100 tons per year of SO₂, a reduction of about 20,000 tons per year in response to the requirements of Phase II of the Title IV - Acid Rain Program.

In light of modeling demonstrating minimal air quality impact, the fact that there have been no violations of the SO₂ NAAQS in the Peoria area in more than 20 years, and that the requested rule change sought by CILCO does not result in an overall increase of SO₂ emissions above those currently adopted in Illinois' SIP, the Agency therefore agrees that the proposed site specific rule change is appropriate.

This concludes my testimony.

STATE OF ILLINOIS)
) SS.
COUNTY OF SANGAMON)

PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached Testimony of Robert J.

Kaleel upon the person to whom it is directed, by placing in an envelope addressed to:

TO: Dorothy Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601

John Knittle, Hearing Officer
Illinois Pollution Control Board
1717 Philo Road, Suite 25
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211 Fulton Street, Suite 600
Peoria, Illinois 61602-1350

and mailing it by First Class Mail from Springfield, Illinois on October 8, 2002, with sufficient postage affixed.

Cynthia Sims

SUBSCRIBED AND SWORN TO BEFORE ME

this 8th day of October, 2002

Cynthia L. Wolfe
Notary Public

