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ENVIR. APPEALS BOARD

Dan Merriman, Hearing Officer  
Illinois EPA  
1021 N. Grand Ave. E.  
P.O. Box 19276  
Springfield, IL 62794-9276

RECEIVED FEB 28, 2003  
Division of Legal Counsel  
JUL 01 2003  
Environmental Protection  
Agency

Re: Indeck - Elwood Draft Construction Permit/PSD Approval, Permit Number 02030060

Dear Mr. Merriman,

Thank you for the opportunity to submit further comments on the above mentioned permit.

These comments are submitted on behalf of the Lake County Conservation Alliance.

LCCA was founded to serve as an umbrella organization for more than 20 grass roots environmental groups and several hundred individual members. We work diligently to preserve the natural resources and the quality of life in Lake County and beyond.

LCCA is concerned about the air quality in Lake County. Lake County is non-attainment for ozone and we just had the first two ozone action days of the summer.

We decided to be active and knowledgeable participants in the permitting processes for pollution sources. Members of LCCA have testified at the IPCB hearings on peaker plants, at IEPA hearings, submitted written comments on construction and CAAPP permits, participated in workshops on Title V, on advanced Title V, on New Source Review, RBLC, as well as the National Dialog on Public Participation and Environmental Justice.

**Hearing and Public Involvement process issues:**

Over the last three years, I have attended about two dozen IEPA BOA hearings. I have seen the good, the bad, and now the ugly.

IEPA has to decide what their public hearings are supposed to accomplish: are they meant to just barely cover the minimum requirement of the law or is the goal to satisfy the spirit of the law and strive for meaningful public involvement in IEPA permitting decisions?  
In this case, not even the bare minimum was achieved.

To the public, IEPA hearings are intimidating in the best of circumstances. Not all of us are comfortable speaking into a microphone addressing a head table of "suits" and adversaries in the audience.

I have never been to a hearing, nor do I ever want to ever again go to a hearing where the hearing location is surrounded by police tape (!) and the sign-in table is manned by police officers! I was interrogated as to my business and tagged with a number like some cattle prepared for slaughter. Whose hearing was this, anyway?

The size of the location was absolutely and very predictably inadequate. The room only held 100 people and over 300 showed up. What was IEPA expecting?

I witnessed that people who could not get in simply left in disgust.

People who were inside had to run in and out to try to negotiate with the police and IEPA to let at least one representative of a group or their legal counsel, who were still outside, attend.

I have suggested in the past and do hereby again, that IEPA should prepare a report for each hearing, identify barriers to public participation and work on solutions to remove such barriers in future. Call it a customer satisfaction or feed back exercise.

I have suggested in the past and do hereby again, that IEPA appoint a new permanent hearing officer. Having somebody whose sole interest is to uphold the public's right to be a meaningful participant would be a great benefit to us.

I question the choice of a rookie hearing officer to preside over the hearing. To make matters worse, hearing experienced IEPA staff did very little to assist him in his duty.

IEPA never "owned" the hearing.

E.g. some self-appointed audience timekeeper kept interrupting speakers who were not of his opinion. If IEPA felt it had to limit everybody to five minutes, it should have asked staff to keep time. Whose hearing was this, anyway?

Any person wishing to address IEPA needs to be confident that he or she can do so without being interrupted or harassed or ridiculed by audience members who disagree with his/her viewpoints. Any remark, on or off the record, that personally attacks the ethnic background, physical appearance, mental capacity, or gender of others should have been immediately reprimanded by the hearing officer. The transcripts do not begin to show the amount of cat-calling that was going on.

I felt threatened, and that was not just personal perception. Several people, including strangers, approached me after the hearing and offered to escort me to my car. In the beginning I nonchalantly declined, but in the end I did ask an IEPA employee to do so.

IEPA failed to create an atmosphere at the public hearing that would have been conducive to meaningful public participation.

IEPA has plenty of hearing experience, especially the utility section, and can certainly anticipate concerns and questions the public might have about a proposal in general. IEPA's introductory remarks did not even provide basic information about the location or physical size of the proposed facilities. Please come better prepared next time.

The Elwood hearing was a shameful spectacle.

I again sincerely hope IEPA will take lessons learned at the hearing to heart and will do better in the future, but I am not holding my breath.

Non-attainment New Source Review issues:

The proposed Indeck Elwood plant would be a NNSR source for VOM . According to the Draft New Source Review Workshop Manual ( "the NSR manual") Chapter G preconstruction review requirements for new major sources locating in a non-attainment area include proof of compliance with all other sources owned or operated by the applicant, emission offsets, and LAER.

The applicant also has to conduct an analysis of alternatives to the project.

Proof of compliance comments:

I have included a copy of my comments on the construction permit revision/Title V permit for the Indeck/NRG Rockford I and II facilities. I believe Indeck is *not in compliance* with permit conditions at its Rockford II plant. I urge IEPA to issue a Notice of Violation to Indeck Rockford as is required by law.

Emission off-sets comments:

Indeck proposes to purchase the required VOM offsets from 3M Bedford Park.

The NSR manual provides that

In evaluating a non-attainment NSR permit, the reviewing agency ensures that offsets are developed in accordance with the provisions of the applicable State or local non-attainment NSR rules. The following factors are considered in reviewing offsets :

- the pollutants requiring offsets and amount of offset required;
- the location of offsets relative to the proposed source;
- the allowable sources for offsets;
- the "baseline" for calculating emissions reduction credits; and
- the enforceability of proposed offsets.

The manual further specifies:

III.D .enforceability of proposed offsets

The reviewing agency ensures that all offsets are federally enforceable. Offsets should be specifically stated and appear in the permit, regulation or other document which establishes a Federal enforceability requirement for the emissions reduction. External offsets must be established by conditions in the operating permit of the other plant or in a SIP revision.

3M Bedford park participated in IEPA's EMSA program as part of a regulatory innovation project.

The "Overview" on the IEPA web page titled "Regulatory Innovation Pilot Program for Illinois" specifies under

**"Termination:**

A project sponsor may take action to voluntarily terminate an EMSA. The Agency may take action to involuntarily terminate an EMSA if serious problems develop or in accordance with rules adopted by the Pollution Control Board."

3M Bedford Park reduction of its VOM emissions was a voluntary action and 3M may chose to stop participating in the project. Those VOM credits are not permanent or federally enforceable. Indeck may not use them as offsets.

**LAER comments:**

From the NSR manual:

Several technological considerations are involved in selecting LAER. The LAER is an emissions rate specific to each emissions unit including fugitive emissions sources. The emissions rate may result from a combination of emissions-limiting measures such as (1) a change in the raw material processed, (2) a process modification, and (3) add-on controls. The reviewing agency determines for each new source whether a single control measure is appropriate for LAER or whether a combination of emissions-limiting techniques should be considered.

LAER is further defined at 35 IAC 203.301 as:

The most stringent rate of emissions based on the following:

1. The lowest emission limitation, which is contained in the implementation plan of any state for a class or category of stationary source, unless it is demonstrated that such limitation is not achievable. (Emphasis added)
2. The lowest emission limitation which is achieved in practice or is achievable by such a class or category of stationary sources, or
3. The applicable New Source Performance Standard..

IEPA erred in interpreting coal fired powerplants to be a "class or category of stationary source". Coal fired power plants are not in a class or category by themselves.

Indeed, Indeck Elwood was classified by IEPA to be a facility categorized under the Standard Industrial Classification (SIC) code of "4911".

According to a description on the Occupational Safety and Health Administration (OSHA) website SIC 4911 means:

Division E: Transportation, Communications, Electric, Gas, And Sanitary Services

Major Group 49: Electric, Gas, And Sanitary Services

Industry Group 491: Electric Services

4911 Electric Services

Establishments engaged in the generation, transmission, and/or distribution of electric energy for sale.

-Electric power generation, transmission or distribution.

SIC 4911 includes all power generating plants, coal and gas fired.

Section 203.206 of the Illinois Administrative Code ("IAC") also includes a listing of source categories : "26. Fossil fuel fired steam electric generating plants of more than 250 mmbtu of per hour heat input"

Again, this category is not specifically just for coal fired power plants; natural gas is also a fossil fuel, and combined cycle plants are steam electric generating plants.

A review of the RACT/BACT/LAER Clearinghouse ("RBLC") reveals that within the same SIC code category, gas fired plants achieve much lower VOC emissions than the Indeck proposal, as low as 1.2 ppm VOC , e.g. for PA-0189 Connectiv Bethlehem, Inc.

LAER for VOC is a combined cycle gas fired power plant.

Further, the NSR manual mandates review of " (1) a change in the raw material processed, ", neither Indeck nor IEPA has conducted such a review.

Even if it is appropriate to define a category to mean "coal fired power plants" there are plants permitted that achieve lower VOM emissions than the Indeck proposal: Tampa Electric Polk station Certificate of Conditions states VOC 0.0017 lbs/mmbtu and the Roundup Power Project in Montana, permitted 1-31-03, includes a VOC limit of 0.0030 lbs/mmbtu.

Either way, the proposed limit for VOM limit of 0.004 lbs/mmbtu is not LAER.

Alternative analysis comments:

35 IAC 203.306 analysis of alternatives provides that

“the owner or operator shall demonstrate that the benefits of the new major source or major modification significantly outweigh the environmental and social costs imposed as a result of its location construction or modification based upon an analysis of alternative sites, sizes, production processes and environmental control technique for such proposed source.”

Contrary to IEPA's statements in the Project Summary VI D, the application is silent on this topic in regards to sites and size, only mentions Integrated Gasification Combined Cycle (“IGCC”) technology as an alternative production process but not natural gas Combined Cycle, and discusses some environmental control technologies.

This application should have been deemed incomplete.

Instead, IEPA attempts in its Project Summary to supply arguments as to the alleged benefits of the Indeck proposal, but falls short of providing any.

IEPA argues that electricity is essential to human society, yet a merchant plant does not provide essential services, it just gambles on the chance to be a player in a deregulated market.

IEPA argues that new coal plants are beneficial because they increase competition among suppliers. IEPA does not know nor require Indeck to document where and to whom the electricity will be sold. Regulated neighboring with utilities who can buy Indeck's electricity but offer no choice of suppliers to their customers. IEPA has to request that Indeck submit a detailed breakdown of how much of the electricity generated will stay in Illinois, how this will increase competition and which less performing electric generating facilities will be taken off line.

IEPA argues that new plants will allow for reduced operation of older and more polluting power plants. Given that such older coal plants have no capital cost because they are fully amortized, they have a significant price advantage over newly constructed plants, how did IEPA arrive at this conclusion? Any documentation on this topic has to be made part of the record.

IEPA believes that alternative power sources and energy conservation do not address the need for new power. IEPA or the applicant must have conducted an analyses for the need of electrical generation and the effect of energy conservation in Illinois that run contrary to all other studies on this subject. I request that the need analyses that were the basis for the above statement be made part of this record.

IEPA claims to have technical knowledge about power transmission and as to why it is desirable to build new plants near the users of electricity. I request that the underlying research documents be made part of this record.

In an article by the Chicago Tribune dated May 18, 2003, (copy included) IEPA agrees that gasification is the best hope for the future of coal-fired power plants and Director Renee Cipriano is quoted :” It is just not feasible at this location.”. If this statement was the conclusion of a site feasibility study, this study has to be made part of this record.

IEPA either came to unfounded conclusions or to conclusions that were based on documents that were not part of the record that was made available to the public. All information used to make a permit decision must be part of the public record. The lack of them makes any meaningful public participation in the permitting process impossible. IEPA has deny the permit, instruct Indeck to amend the record, and re-notice the project with a new draft permit..

Beyond addressing potential benefits, which as we have seen above, the applicant did not do, Indeck also has to show that those benefits outweigh environmental costs as mandated in 35 IAC 203.306,

In order to do so, Indeck must first show what the expected environmental costs would be. This was not done at all.

Indeck has to submit a detailed Environmental Impact Study/Statement ( “EIS”) that has to contain as a minimum impacts of the proposed project on

Air quality impacts, including potential increase in ozone levels and inability to reach attainment in current ozone non-attainment areas.

Hydrology and water quality, including the impact of increased mercury deposition on aquatic habitats both within and outside the project area. A study of consequences of acidification and nitrification of aquatic systems has to be included. The EIS has to address the impact, both environmental and social, on groundwater usage and the aquifer and potential water drinking water shortages. It has to address wastewater run-off and containment of potentially polluted water.

The EIS has to contain discussions about biological aspects of the project e.g. loss of habitat on site and surrounding areas, and impact of sensitive species, especially the impact from this proposal on the Midewin Prairie.

The EIS has to include impacts on children and elderly in the communities that host coal generating stations who suffer respiratory illnesses, and ever-increasing asthma, and the larger human and biological communities that sustain damage by unregulated pollutants such as mercury and carbon dioxide.

Other aspects that need to be included are land use and community character, socio-economics and local services, especially fire protection capability, transportation issues, visual impacts, and noise.

Each identified impact has to include a discussion of appropriate mitigation.



The EIS should also address social costs.

There is concern about the socio-economic costs of tons of emissions of ozone precursor pollutants of this project. Lake County and other collar counties can already not meet the NAAQS for ozone.

I have included a letter from Suzie Schmidt, Lake County Board Chair, to Governor Rod Blagojevich that highlights those concerns.

The Illinois Constitution mandates environmental protection and conservation of natural resources. Article XI, Section 1 of the Constitution provides:

**SECTION 1. PUBLIC POLICY - LEGISLATIVE RESPONSIBILITY** The public policy of the State and the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations. The General Assembly shall provide by law for the implementation and enforcement of this public policy. (Source: Illinois Constitution.)

The law provided by the general assembly is the Environmental Protection Act found in the the Illinois Compiled Statues (ILCS):

**TITLE I: GENERAL PROVISIONS (415 ILCS 5/1) Sec. 1.** This Act shall be known and may be cited as the "Environmental Protection Act". (Source: P. A. 76-2429.) (415 ILCS 5/2) Sec. 2. (a) The General Assembly finds: (i) that environmental damage seriously endangers the public health and welfare, as more specifically described in later sections of this Act; (ii) that because environmental damage does not respect political boundaries, it is necessary to establish a unified state-wide program for environmental protection and to cooperate fully with other States and with the United States in protecting the environment; (iii) that air, water, and other resource pollution, public water supply, solid waste disposal, noise, and other environmental problems are closely interrelated and must be dealt with as a unified whole in order to safeguard the environment; (iv) that it is the obligation of the State Government to manage its own activities so as to minimize environmental damage; to encourage and assist local governments to adopt and implement environmental-protection programs consistent with this Act; to promote the development of technology for environmental protection and conservation of natural resources; and in appropriate cases to afford financial assistance in preventing environmental damage; (v) that in order to alleviate the burden on enforcement agencies, to assure that all interests are given a full hearing, and to increase public participation in the task of protecting the environment, private as well as governmental remedies must be provided; (vi) that despite the existing laws and regulations concerning environmental damage there exist continuing destruction and damage to the environment and harm to the public health, safety and welfare of the people of this State, and that among the most significant sources of this destruction, damage, and harm are the improper and unsafe transportation, treatment, storage, disposal, and dumping of hazardous wastes; (vii) that it is necessary to supplement and strengthen existing criminal sanctions regarding environmental damage, by enacting specific penalties for injury to public health and welfare and the environment. (b) It is the purpose of this Act, as more specifically described in later sections, to establish a unified, state-wide program supplemented by private remedies, to

restore, protect and enhance the quality of the environment, and to assure that adverse effects upon the environment are fully considered and borne by those who cause them. (c) The terms and provisions of this Act shall be liberally construed so as to effectuate the purposes of this Act as set forth in subsection (b) of this Section, but to the extent that this Act prescribes criminal penalties, it shall be construed in accordance with the "Criminal Code of 1961", as amended. (Source: P.A. 83-1101.)

The Illinois Constitution and Illinois rules and regulations charge the Illinois Environmental Protection Agency to act with diligence to protect the public interest in the state's resources and to protect the right of the people to a healthful environment.

The application and the draft permit are flawed because of the failure to properly conduct a site assessment, weigh the environmental impacts of the project against its social and economic benefit, and consider the adverse environmental effects of the project.

The IEPA is the primary public trustee of the environment and must consider and follow the Constitution and statutory law in making any determination about the granting or denial of permits.

IEPA has to deny the permit.

Notwithstanding any of the above, I will continue to discuss problems with the draft permit.

**PSD issues:**

The proposed plant is a major source under PSD rules. In addition to criteria pollutants NOX, SO<sub>2</sub>, CO, PM, it also has the potential to emit significant amounts of sulfuric acid mist, fluoride, and Beryllium, as well as mercury.

PSD regulation require that a source demonstrate that 1. Its emissions will not cause an adverse effect on ambient air quality, 2. The source will not cause an exceedance of an applicable increment and 3. Conduct an analysis of Best Available Control Technology (BACT) 4. That there will not be any impact on soils, visibility and vegetation.

Proof that emissions will not cause an adverse effect on ambient air was attempted through air modeling :I see several problems with the air model Indeck conducted:

Indeck conducted air modeling; but only for criteria pollutants although HF, mercury, beryllium and acid mist exceeded PSD thresholds. A separate air quality analysis must be submitted for each regulated pollutant the proposal could emit. Regulated pollutants include: pollutants for which a NAAQS exists and other pollutants regulated by EPA.

Indeck used the rural dispersion coefficient based on existing land use. Yet we know that future land use includes a 18 million square foot warehouse, a large car dealership, and other developments at the Centerpoint proposal. Indeck should have also modeled for urban dispersion.

In order to use existing ambient data, Indeck has to show that the data are representative of the area of the proposed project, it has to consider monitor location, quality of data, and currentness of data..

There seem to be several problems with the monitoring stations selected by Indeck:

Referring to the "Illinois Annual Air Quality Report 2001" ( I have not enclosed a copy since this is an IEPA generated document),

there is no monitor "Joliet (1971009)" as listed in the modeling report on page2-3, table 2-1, so it is unclear where the SO2 background data used in the model came from.

The air quality report lists Joliet 19700013 as a SO2 monitor, in 2001 the 3 hr second highest concentration was 0.077 ppm, and the 24 highest was 0.038 ppm, both higher then the monitoring data used by Indeck.

Braidwood (1971011) samples as PAMS: O3, NO/NO2, WS/WD, SOL, MET and as SLAMS PM 2.5, however apparently not CO as claimed by Indeck. Which CO monitor was used?

According to the air quality report, the Braidwood monitor for NO2 is a PAMS monitor and is *only operated during ozone season and does not meet statistical minimum selection criteria for an annual arithmetic mean.*( please refer to Table B-12 in the air quality report, it is clearly spelled out) Indeck cannot use it.

If the background concentrations compiled by Indeck in Table 2-2 were erroneous , Indeck failed the data quality check, and the pre-construction waiver cannot be granted. This also cast serious doubts about the foundation of on any further discussion of the impact of this proposal on ambient air quality.

Indeck cannot predict the impact of is project on the NAAQS because the ambient background concentrations were calculated incorrectly. Indeck failed to show that the proposal will not have an adverse effect on ambient air quality. IEPA has to deny the permit.

Notwithstanding any of the above, there are other questions about the air model.

Cumulative source modeling had to be conducted for pollutants whose impact were above the Significant Impact Level (SIL). IEPA provided Indeck with a list of existing or permitted sources, the source inventory, within the impact area.

The impact area is defined in the NSR manual as "a circular area with the radius extending from the source to the most distant point where approved dispersion modeling predicts a significant ambient impact will occur or a modeling receptor distance of 50 km, whichever is less". Each applicable pollutant has its own impact area.

IEPA has not identified the impact area for each of the pollutants emitted by Indeck.

How then was the regional source inventory compiled? What radius was selected and why?

The list of existing background sources may not list sources that have not yet received a Title 5 permit and that might be PSD, thus underestimating the existing sources' emissions.

Please explain the differences in maximum concentration of just the 2 CFB boiler ( table 2-10) and the entire facility ( table 2-11). Especially, which emission units causes the huge increase of annual NOx emissions from 0.46 mug/m3 for 2 CFB boiler at 50 % load-- to 6.63 mug/m3 for the entire facility? All other increases seem to be explainable by ancillary source equipment, except for NOx.

Please explain the difference in the "project contribution to maximum concentration (mu g/m3)" columns in tables 2-12 and 2-13.

Where are the points of maximum impact for the pollutants? Please generate and make public maps showing those points.

The NSR manual on page C 37 states: An inventory of all non-criteria pollutants emitted in significant amounts is required for estimating the resulting ambient concentration of those pollutants.... an emission inventory for non-criteria pollutants should include sources within 50 kilometers. None of the above was done.

The project summary states that there were exceedances for PM10 and SO2 NAAQS but attributes those exceedances to "inaccuracies in the emission inventory" and concludes that the exceedances are not relevant for the purpose of this application, anyway.

If the inventory is inaccurate, it gives false results, either too high, as claimed here, or too low, which is not discussed. Accuracies don't go just one way.

Please explain why we bother to have air quality standards and require air modeling if discussion of the standard is based on faulty data, faulty inventories and the results of the modeling are deemed "not relevant for the purpose of this application" and "do not contribute significantly".

Please indicate what the consequence of those exceedances of PM10 and SO2 NAAQS would have been according to the rules or in other words: If Indeck had to deal with the exceedance problem, could they still build the plant?

What impact would this source have on the new 8-hour ozone standard? The PM 2.5 standard?

**Impact on soils and vegetation:**

The NSR manual on page D 4 reads: " the analysis of soil and vegetation air pollution impacts should be based on an inventory of the soil and vegetation types found in the impact area. This inventory should include all vegetation with any commercial or recreational value, "

The Midewin Prairie is a site of high recreational value and of statewide, if not national importance. Indeck has to conduct a detailed soil and vegetation inventory. It is noteworthy that the NSR manual states that for most soil types and vegetation concentrations of criteria pollutants below the secondary NAAQS will not result in harmful effects but that there are sensitive species which maybe harmed by long term exposure to low concentrations of pollutants for which there are no NAAQS. This clearly indicates that under certain circumstances the analysis has to go beyond just a simple screening. The sensitive ecology of a prairie is such a special circumstance.

**Best Available Control Technology (BACT) issues:**

The NSR manual describes the five steps of a top-down BACT determination that has to be conducted for each pollutant subject to PSD review:

1. Identify all control technologies- Including LAER
2. Eliminate technical infeasible options
3. Rank remaining control technologies by control effectiveness
4. evaluate most effective and document results, case-by-case consideration of energy, environmental and economic impacts
5. select BACT

Indeck's BACT analysis is incomplete and therefore very difficult to comment on.

In order to understand the source's Potential To Emit ("PTE") Indeck has to complete a chemical analysis of the coal it proposes to use. Second, in order to evaluate the effect of add-on emission controls, Indeck has to supply a flue gas characteristic after each device it proposes to utilize.

Indeck's A BACT decisions fail to consider the effect of a control device on all pollutants, including unregulated toxic pollutants.

Throughout the application it repeatedly ignores step 1: Identify all available control options. Indeck instead spends a lot of time defending the one it chose. That is not what the regulations mandate.

The following are just two examples from Indeck's application that illustrate that Indeck did not conduct a top-down BACT analysis:

1. On page 5-21 of the application, Indeck claims that limestone injection is BACT for fluorides (hydrogen fluorides "HF") without conducting a top-down BACT analysis.

A survey of the RBLC web site reveals that e.g. the AES Puerto Rico plant (also a CFB boiler facility) achieves BACT HF limits of 0.0005 lbs/MMBTU or 1.18 lbs/hr using a scrubber. Indeck would emit (assuming 8760 hrs of operation) 11.46 lbs/hr or 0.001952 lbs/mmbtu.

Curiously, because none of the suggestions were considered by Indeck, the attachment B of the October 30, 2002 letter on page BD 14 includes a thorough HF BACT analysis conducted by JEA NGS Repowering Project that identifies the following available control options: Spray dryer absorber/ Fabric Filter, or CFB scrubber/Electrostatic Precipitator, or CFB scrubber with a Fabric Filter none of which were evaluated by Indeck. All three AQCS are guaranteed to reduce HF to 0.43lbs/hr or 0.000157 lb/mmbtu, far less than the Indeck proposal.

2. Indeck claims on page 5-11 of their application that it was unable to find any recent auxiliary boiler installations in the RBLC web site. Funny thing.

I ran the following search:

Ranking Report for Search Criteria

Pollutant: NOX

Process Category: Commercial/Institutional-Size Boilers/Furnaces (100 million Btu/hr or less)

Process Type: 13.310

Process Name: Natural Gas (includes propane and liquefied petroleum gas)

Permit Date Between 06/25/1993 And 06/25/2003

produced over 100 results from RBLC.

I believe it goes beyond the scope of public comment to analyze these data. It suffices to say that Indeck failed to include BACT identification for the auxiliary boiler. Nonetheless, I have included two examples from the RBLC of gas fired auxiliary boiler of comparable size that achieve much lower emission rates than the one proposed by Indeck

While we are on the topic of "sources consulted to determine BACT", on page 5-5 of the application under "5.3.2 SIP Limits", Indeck totally misconstrues the meaning of SIP limits. It believes that SIP limits can be correlated to BACT limits. Indeed, SIP limits are the upper allowable limit for regulated pollutant while BACT is the lowest allowable limit.

Cost analyses conducted by Indeck:

I have in the past urged IEPA to please review cost analyses submitted by applicants instead of merely and uncritically accepting them. I ask that the critical review written by Dr. Phyllis Fox on this issue that I submitted for the KNCD appeal be made part of this record: to highlight, again, problems with e.g. the SCR scrubber cost analysis, page 5-15 of the application:

In IL, there is no tax on pollution control devices, freight is usually included in the price, and even if not, it will not be 1.3 million dollars.

\$1.4 million for a foundation seem excessive. Without knowledge of the size of the foundation needed, no estimate can be included in the cost analysis. A cubic yard of concrete installed is about \$250, \$1.4 million is a lot of concrete. Engineering is only needed once per installation and cannot be double-counted, start up and performance testing, claimed to amount to \$ 534 000 would be required even if there was no scrubber.

**Comments on specific permit conditions:**

1 b on page 3: please define what "generally designed for coal in Illinois" means.

4 a 1, page 8 The mentioned determinations have to be accessible by the public as well

4 b i : I interpret this to mean that if Indeck follows "the plan" it excused to report exceedances that occur during startup, breakdown and malfunction. Such blanket exception would be illegal.

5 b ii How many diesel engines are there and re they emergency or standby units, or not? This has to be specified in the permit.

Page 10 cond. 6 b 1 : I don't understand what this means, please clarify.

Pages 11, 1.2 b and following: Please explain the thinking behind and identify the method for defining averaging times in this permit that range from 3 hours to 30 days. Averaging times must not interfere with enforceability of emission limits. If the limits are hourly, how can this be accomplished with 30 day averaging times?

page 13, c iii inappropriately delays compliance for 18 months after startup

page 17 testing requirement:

a 1 A please clarify that such testing has to be conducted by an independent testing service.

a 1 B Please identify the legal authority and environmental impacts for this condition which seems to exempt the source from compliance testing for an entire year beyond the statutory time frame.

Please explain how compliance with opacity limits will be monitored. Note that I believe Method 9 would be inadequate because it limit compliance monitoring to daytime hours only. Require Indeck to install a COMS.

Page 22 notification 30 days is not "prompt". I suggest three working days instead.

Page 23: operational flexibility: Please explain how this provision does not contradict condition 1 b on page 3.

Please explain how ammonia slip is monitored.

These comments are submitted in the hope that all questions and concerns voiced in here will be answered in a Responsiveness Summary.

If any of the questions or comments submitted in regards to this source, not only by LCCA but by any person, group or other entity, are deemed "not relevant" or worthy of an answer, please include a brief listing of such questions in the RS.

In light of all of everything that was pointed out in these comments, we request that IEPA deny Indeck a final permit for its proposal. Indeck's application, and consequently the Project Summary, the Draft Permit and the hearing were so substandard that the only fair solution is to start afresh with a new draft permit.

For the Lake County Conservation Alliance

Sincerely,



Verena Owen

421 Ravine Drive

Winthrop Harbor, IL 60096

Enclosures



**Verona Owen**  
421 Ravine Drive  
Winthrop Harbor, IL 60096

June 11, 2002

Mr. Brad Frost  
Illinois EPA  
1021 North Grand Avenue East  
Springfield, IL 62794

RE: Permit number 01060062 and 00100077 for NRG / Indeck Rockford I and II

Dear Mr. Frost;

Thank you for the opportunity to submit comments on the above-mentioned permits for the NRG/Indeck ("Indeck") facilities.

#### 1. Public Participation

I especially appreciate Illinois EPA's policy to reopen revisions of construction permits to public comment.

Yet, surprisingly, that fact does not seem to have generated enough interest by the public to compel your Agency to hold a public hearing. As I will explain further, there is evidence that the neighbors of the Rockford facilities have concerns about the power plants.

When Indeck approached the town of Round Lake with a proposal for similar power plant, some village trustees took it upon themselves to visit the neighbors of the Rockford plant. Armed with a video recorder they produced a video that highlighted some of the problems the neighbors have with the plant: excessive noise, small "explosions" and 2 A.M. "steam whistles" were mentioned, as well as Indeck's unresponsiveness to complaints, and unidentified powdery deposits on their cars, outdoor furniture and kiddie toys that seem to eat away some of the finishes.

Setting aside the question if the people in Rockford have cause for concerns or if those could have been addressed by IEPA, I am sure those neighbors of the Rockford plant would have wanted to discuss those issues with your Agency, had they known about the opportunity to do so.

I have remarked before on the failure by IEPA to reach the very people who will be most affected by Agency decisions. Sadly, Rockford is just another example.

## 2. Permit Amendment

Indeck has requested a construction permit amendment for the Rockford II facility that would raise the hourly PM emissions from 6 lbs/hr to 23.5 lbs/hr. The construction permit for Rockford I contains no testing requirements for PM/PM10 emissions but instead relies on AP 42 emission factors for PM at 10 lbs/hr. According to IEPA, the turbines in Rockford I and II are almost identical. It is very likely that Rockford I cannot meet the 10 lbs/hr limit. Indeck has to be required to test for PM/PM10 at Rockford I; and the test results establishing new emission limits have to be reflected in a permit condition.

## 3. Public Participation II

Over the last six months I have submitted extensive comments on CAAPP permits for gas fired power plants. Please consider them part of this record. It is waste of my time to just having to repeat, again, what I have said before about CAAPP permit for gas fired power plants. IEPA refrains from responding to comments made on CAAPP permits. Indeed, to this day IEPA has not released a summary response for comments received at the Reliant Aurora CAAPP hearing that took place over 17 weeks ago. This is an attempt to discourage public participation. IEPA hopes people will get tired of having to deal with an unresponsive Agency, an interesting strategy that runs afoul with specific requirements in the Clean Air Act to involve the public in the decision making process.

## 4. Non-Enforcement

In December of 2002, Indeck requested an amendment of its construction permit for Rockford II. It turns out that, after conducting initial stack tests in May and failing PM emission limits, Indeck knowingly ran, and likely continues to run, the Rockford II turbine in violation of conditions in the construction permit.

IEPA should have immediately issued a Notice of Violation (NV) to Indeck.

IEPA has repeatedly, and publically, stated that no source can benefit from violating permit conditions, rules, or regulation. Indeck therefore has forfeited all revenue generated by the Rockford II facility to date to the people of Illinois.

Sincerely,

Verena Owen

CC Region 5  
John Cashman  
Jim Ross

~~...regulations,~~

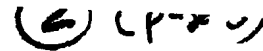
Further, the public expects the IEPA to diligently track down polluters, and assess appropriate fines for violators.

IEPA failed in its duties and I cannot perceive any possible explanation as to why Indeck was not issued a NV.

Both Calpine in Zion and Reliant in Aurora were given NVs for construction permit violations. What warranted Indeck's special treatment?

Thank you for your interest in this matter,

Sincerely,



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|---|---------------------------|-------------------------------|--------------------------------------|------------------------------|
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| <a href="#">Process / Pollutant Information</a> |                           |                               |                                      |                              |

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**Process Information - Details** [Help](#)

**ID/Company:** PA-0189 /  
**Plant Name:** CONECTIV BETHLEHEM, INC.  
**Process:** 6 COMBINED CYCLE COMBUSTION TURBINES

**Primary Fuel:** NATURAL GAS  
**Throughput:** 1100 MW  
**Process Code:** 11.310  
**SCC Code:** 1-01-006-02

**Compliance Verified?** Yes  
**Verification Method**

**Stack Testing:** Yes  
**Inspections:** No  
**Calculation:** No  
**Other Method:** No  
**Description:**

**Pollutant Information - List of Pollu**

| Pollutant    | Primary Emission Limit |
|--------------|------------------------|
| <u>NOX</u>   | 2.5 PPMVD @ 15% O2     |
| <u>PM10</u>  | .0135 PPM              |
| <u>H2SO4</u> | .0002 PPM              |
| <u>VOC</u>   | 1.2 PPMVD@15% O2       |

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(5) (page 1)

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5/19/03

# Critics dig in on coal plant

## Opponents fear pollution from proposed facility

By Karen Mellen  
Tribune staff reporter  
Published May 18, 2003

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In an attempt to revive Illinois' lagging coal-mining industry, Gov. Rod Blagojevich wants to give \$50 million in financial incentives to the builders of a coal-fired power plant on the former Joliet Arsenal, one that would burn Illinois coal and create jobs.

But environmentalists have come out against the proposed \$1 billion facility, arguing that it should not build another coal-burning plant because of the soot and pollution it would create.

They say the technology proposed for circulating, fluidized bed system—its dirt and releases too much pollution.

"It's not a smart move to have the state that kind of technology that's just going to be a future problem for the state of Illinois," says Robert Urbaszewski of the American Lung Association, Metropolitan Chicago.

Indeck Energy Services Inc., based in Grove, plans to build the plant to create and sell it on the open market, likely in an industrial park proposed in the former Joliet Arsenal in Elwood. The plant would produce a maximum of 660 megawatts of electricity and would make it one of the state's largest.

To receive financial benefits from the project, the company would burn coal mined in Illinois. The financial incentives include about \$25 million that would be repaid by using sales tax revenue from buying Illinois coal, the governor's office says.

Illinois coal has a high sulfur content, which causes more pollution when burned. Most Illinois coal plants do not have the technology to burn Illinois coal and still meet federal air pollution standards that were toughened in 1990. Those plants import coal with less sulfur, usually from the West.

As a result, the number of coal-mining jobs in Illinois dropped to just over 4,000, down from about 10,000 workers in 1980, said Taylor Pensoneau, president of the Illinois Coal Association.

This project would create about 200 coal-mining jobs in Illinois, according to Blagojevich's campaign.

"In terms of Illinois coal, everything helps," Pensoneau said. "Two hundred jobs, in this day and age, is a sizable number in the Illinois coal industry."

The plant Indeck proposes turns coal into a sludge in which contaminants can be captured and sold as a solid.

Dave Kolaz, chief of the Illinois Environmental Protection Agency's bureau of air, said that the plant would create a significant amount of pollution.

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this technology would produce 20 percent of the air pollution that plants built 50 years ago

Most of those older plants do nothing to stop the emission of sulfur dioxide, which can cause  
 Some use scrubbers, a solution of water and limestone, to capture the sulfur.

Representatives from the EPA also said the proposed plant would fall within federal and state  
 for emissions in the Chicago area.

But Urbaszewski said that the people who would live or work near the power plant would be  
 risk of health problems. That's because the fine particulate released into the environment from  
 plants causes respiratory problems.

He cited a Harvard School of Public Health study released in 2001 that concluded that nine  
 power plants in northern Illinois are linked yearly to 300 deaths, nearly 14,000 asthma attack  
 emergency room visits.

"We have unhealthy air right now, in the Chicago area, from two different kinds of pollution:  
 fine particulates," Urbaszewski said. "About one-third of the fine particulates in the air of Chicago  
 from sulfur, from coal-fired power plants."

Other environmentalists said the proposed plant is not the best way to create electricity. Dick  
 executive director of Illinois Public Interest Research Group, an environmental organization  
 group favors power plants that do not increase air emissions, no matter what the technology

Shift to cleaner fuel

"But we would prefer that instead of looking at reliance on coal in Illinois, a shift to cleaner fuels  
 such as wind and solar," she said.

Currently, coal is the fuel for about half of the electricity produced in Illinois. Because of this  
 coal, other environmentalists said that if coal is used, the best technology should be implemented  
 that is coal gasification.

This method turns coal into a gas mixture using oxygen or steam, said Ronald Carty, director  
 Clean Coal Institute of Southern Illinois University.

Depending on the cleanup process used, larger amounts of sulfur and mercury are removed  
 other techniques, he said.

In fact, the EPA agrees that gasification is the best hope for the future of coal-fired plants to  
 pollution.

But EPA Director Renee Cipriano said that the technology has not yet proved reliable enough  
 implemented commercially and the costs would be too high. Some estimates are that a gas  
 system would cost two or three times more.

Other proposals sought

"It's just not feasible at this location," Cipriano said, adding that she would like to see other  
 using the technology.

Jim Thompson, senior vice president of business development for Indec, would not comment  
 story.

Coal industry officials, like environmentalists, advocate high-tech ways to change coal into  
 as gasification, because of their belief that cleaner techniques are the key to their future.

"It's a cleaner way to use coal, and it doesn't violate any environmental air-quality standard,  
 said of coal gasification. "Money is usually the bottom line of every issue, at some point. And  
 the issue here."

A public hearing on the proposed plant will be held at 7 p.m. Thursday at Elwood Community  
 101 N. Chicago St., Elwood

May 21, 2003

**VIA FACSIMILE**  
**217-524-4049**

Governor Rod Blagojevich  
Office of the Governor  
207 Statehouse  
Springfield, IL 62706

Dear Governor Blagojevich:

Recently, I was made aware that a new coal plant was being proposed in Will County. To the extent that the State of Illinois will be involved in approving this plant or providing any tax subsidies for this plant, I would like to express my concern to you regarding such a facility. This is not only a Will County issue - this is a regional issue.

Lake County's air is already polluted and exceeds the 8-hour ozone standard that will take effect next year. The pollution from this new coal burning power plant will, at times, impact Lake County and we do not want or need any more pollution in Lake County. Further, the additional pollution from this new coal plant will result in more offsets being required on ALL sources throughout Chicagoland, including those in Lake County. All businesses in Lake County, and Chicagoland, will be asked to make up for the addition of this new polluter to our air.

Thank you in advance for your consideration of this regional issue.

Sincerely,

Suzi Schmidt  
Chairman  
Lake County Board





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**Process Information - Details** [Help](#)

**ID/Company:** NJ-0045 / MERCK  
**Plant Name:** MERCK - RAHWAY PLANT  
**Process:** BOILERS - NAT GAS (3)

**Primary Fuel:** NATURAL GAS  
**Throughput:** 99.5 MMBTU/H  
**Process Code:** 13.310  
**SCC Code:** 10200602

**Compliance Verified?** Yes  
**Verification Method**

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**Stack Testing:** Yes  
**Inspections:** No  
**Calculation:** No  
**Other Method:** No  
**Description:**

**Pollutant Information - List of Pollu**

| Pollutant  | Primary Emission Limit |
|------------|------------------------|
| <u>CO</u>  | 3.6 LB/H               |
| <u>NOX</u> | 1.1 LB/H               |
| <u>SO2</u> | .1 LB/H                |
| <u>TSP</u> | .33 LB/H               |
| <u>VOC</u> | .33 LB/H               |

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