

**BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS**

IN THE MATTER OF:)
)
NATURAL GAS-FIRED, PEAK-LOAD) R01- 10
ELECTRICAL POWER GENERATING)
FACILITIES (PEAKER PLANTS))

TESTIMONY OF THOMAS V. SKINNER

Introduction

My name is Thomas V. Skinner and I am the Director of the Illinois Environmental Protection Agency (Illinois EPA). I would like to thank the Board for this opportunity to present testimony on natural gas-fired peaker plants.

My testimony this morning will focus on some of the broader issues related to the Illinois EPA's experience with peakers. Other witnesses from the Illinois EPA will provide more detailed information on the various technical requirements that apply to peakers and how the various programs within the Illinois EPA interpret and implement these requirements.

In addition, I will provide some brief comments on local land use and siting issues related to peakers.

Illinois EPA's Recent Experience with Peaker Plants

In the past year-and-a-half, the Illinois EPA has received an increasing number of applications for permits to construct new natural gas-fired peaker power plants. Since January 1, 1999, the Illinois EPA's Bureau of Air has received 50 permit applications for

the construction of new, natural gas-fired peaker power plants. Of these 50 permit applications, the Bureau of Air has granted 25 permits and has 14 permits applications still pending. Eleven permit applications have been withdrawn by the applicants.

Although these inquiry hearings may provide more specific information on the cause for this rather sudden proliferation of peaker power plants, we believe that the influx of permit applications may be associated largely with the deregulation of electricity generation in Illinois and then further spurred by the situation last summer where the price paid for electricity by Commonwealth Edison was extraordinary because of a lack of availability during a peak period.

Please note that my comments are directed to the specific subject matter of these inquiry hearings: natural gas-fired, peak-load electrical generating facilities known as “peaker plants.” Peaker plants operate only during peak demand situations such as on hot summer days when residential and commercial usage of electricity creates more demand for power than is actually available. Since the scope of these hearings is limited to natural gas-fired peaker plants, I have focused my comments on such plants and will not discuss similar types of plants called “baseload plants” that operate on a more or less continual basis, nor will I discuss peaker plants that use a different type of fuel, such as diesel fuel, that are typically located at older, fossil fuel-fired power plants.

Illinois EPA’s Regulation of Peaker Power Plants

Though the various technical and policy issues related to peaker plants may be complex, the Illinois EPA’s overall regulatory objectives are straightforward:

1. No permit shall be issued for the construction of a peaker plant unless the permit applicant proves that the facility will not violate existing environmental laws and regulations.
2. Peaker plants must be constructed and operated in full compliance with its permits and in full compliance with environmental laws and regulations.
3. Based on our growing experience and knowledge regarding peaker plants, the Illinois EPA will continually evaluate existing requirements and will make or recommend appropriate changes if necessary to protect human health and the environment, or to maintain consistency with the national air quality standards.

I will briefly discuss how the Illinois EPA pursues each of these three objectives.

Objective 1: No permit shall be issued for the construction of a peaker plant unless the permit applicant proves that the facility will not violate existing environmental laws and regulations.

All peaker plants require permits to construct and operate from the Illinois EPA's Bureau of Air. Depending upon the characteristics of the particular project, some peaker plants require a permit from the Bureau of Water. No permits are required from the Bureau of Land. The other witnesses from the Illinois EPA will provide a detailed discussion of the various regulatory and technical requirements used by the Illinois EPA in its review of these permit applications.

As the Board is aware, Section 39(a) of the Environmental Protection Act states that "it shall be the *duty* of the Agency to issue . . . a permit upon proof by the applicant that the facility . . . will not cause of violation of [the] Act or of regulations" promulgated

thereunder (emphasis added). When the Illinois EPA receives an application for a permit to construct a peaker plant – or for any project – it reviews the application to determine whether the proposal will comply with the requirements of applicable state and federal laws and regulations. Where the permit application does not prove compliance, the Illinois EPA denies the permit if the applicant is unable to correct the deficiencies. Where the permit application indicates compliance, the Illinois EPA must issue the permit. The permit may contain conditions that limit certain aspects of the operation of the project, such as the number of hours the equipment may operate or the parts per million of the emission or discharge of a pollutant into the ambient environment, all to ensure compliance with applicable state and federal laws and regulations.

Public participation is an important and integral part of the permitting process. The Illinois EPA publishes notice of each proposed peaker permit in a newspaper of general circulation in the area where the plant will be located. The Illinois EPA considers all information that the public provides that is pertinent to our technical analysis.

A number of residents of the localities where independent power producers (IPPs) have sought to build new peaker plants have expressed opposition to peakers. The public has raised concerns to the Illinois EPA regarding the emissions from peaker plants, the impact of those emissions on local air quality, the impact of those emissions on regional air quality, the impact of those emissions on their health, and our interpretation and application of the regulations providing for permitting of peaker plants. The Illinois EPA's testimony in this proceeding will address these concerns.

In addition to these environmental issues raised by the public, the public has also raised significant land use issues. These include issues relating to aesthetics, zoning,

siting, and property values. I will discuss these local land use issues in more detail in a few minutes.

Objective 2: Peaker plants must be constructed and operated in full compliance with its permits and in full compliance with environmental laws and regulations.

Once a permit is issued, it is imperative that the peaker plant be constructed and operated in full compliance with its permits, as well as in full compliance with applicable environmental laws and regulations. To further this objective, each bureau within the Illinois EPA has inspectors and other compliance personnel who investigate violations of these requirements. If the Illinois EPA finds violations at the facility, the Illinois EPA compels the facility to correct the violations and, if appropriate, refers the matter to the Office of the Attorney General for prosecution and a civil penalty.

Of course, the reality is that peaker plants are just one out of many types of facilities that the Illinois EPA must inspect. The Illinois EPA must prioritize its inspections to focus its resources on the most significant or likely polluters. Unless there is a particular compliance problem identified at a peaker, the Illinois EPA would ordinarily inspect facilities of this size and type every three years. However, because of the number of peakers appearing in Illinois and their proximity to residences, the Illinois EPA will inspect each natural gas-fired peaker plant at least annually for the foreseeable future. This will allow the State to identify and quickly address violations of permit conditions and environmental laws and regulations.

Objective 3: Based on our growing experience and knowledge regarding peaker plants, the Illinois EPA will continually evaluate existing requirements and will make or recommend appropriate changes if necessary to protect human health and the environment, or to maintain consistency with the national air quality standards.

As the Illinois EPA gains additional experience and knowledge on peaker plants, it is committed to continually evaluating whether the existing requirements protect human health and the environment, and whether the existing requirements are consistent with the national air quality standards. When the Illinois EPA finds that existing requirements are lacking, it will either administratively address the problem if it has the legal authority to do so, or it will propose appropriate regulatory changes to the Board or legislative changes to the Illinois General Assembly.

Since January of this year, the Illinois EPA has made two such administrative changes in the way it reviews air pollution permits for peakers. First, although not required by law to do so, the Illinois EPA has held public hearings prior to making final decision on air pollution construction permits for peakers, and it will continue to do so for the foreseeable future. Public hearings allow the Illinois EPA to receive additional information that might not otherwise be presented for its consideration.

Second, the Bureau of Air requires applicants for peaker construction permits to perform a comprehensive analysis of the environmental effects for each permit application for a peaker plant. This environmental analysis consists of modeling the impacts of the proposed facility on air quality. The Illinois EPA requires that this modeling include emissions from all major sources near the proposed source as well as all other proposed new electrical generating plants in the area. In addition, to assure quality, the Bureau of Air audits the modeling performed by the permit applicant. Prior to

January of this year, this type of analysis was performed only on “major” projects, which was based upon the number of tons of pollutants projected to be emitted into the atmosphere annually.

Also, in July of this year the Illinois EPA proposed a rule to the Board to reduce statewide nitrogen oxides from electrical generating facilities, which includes peakers. This proposal was in response to U.S. EPA’s call for state implementation plans (SIPs) requiring significant reductions in emissions of oxides of nitrogen (NO_x), called the NO_x SIP call. NO_x is a precursor to ozone. NO_x and volatile organic compounds (VOCs) combine in the atmosphere in the presence of sunlight on hot summer days to form ozone. Reductions of NO_x emissions over a broad area will reduce ozone in the region, including the ozone nonattainment areas. The portion of the NO_x SIP call applicable to peaker plants establishes caps on NO_x emissions from electrical generating units (EGUs). All EGUs serving generators with a capacity greater than 25 megawatts of electricity (MWe) are subject to the emissions cap. The owners and operators of these units must relinquish an allowance for each ton of NO_x emitted between May 1 and September 30 beginning in 2003. If adopted, this rule will result in a reduction in NO_x emissions during the ozone season from over 200,000 tons to less than 31,000 tons statewide.

Local Land Use Considerations

As I mentioned earlier, during the Illinois EPA’s review of peaker permit applications it frequently received public comments expressing concern over the effects that peakers will have on aesthetics, zoning, siting, and property values. In addition, I

personally heard these types of concerns as I toured the State with the Governor earlier this Spring.

While these are all valid and important issues, the Illinois EPA is not authorized to consider them in its review of permit applications. These types of land use issues are left to local units of government, which the legislature has determined are in a far better position to evaluate these matters for their own communities.

It is important to keep in mind that a permit to construct a peaker plant issued by the Illinois EPA *does not* supersede applicable local land use requirements. Rather, a permit to construct issued by the Illinois EPA is merely one of many regulatory requirements that a new project must meet.

In its June 13, 2000, Order establishing this docket, the Board requested comments on the following issue: *Should new or expanding peaker plants be subject to siting requirements beyond applicable zoning requirements?* The Illinois EPA has no direct involvement in the local siting process established under the Environmental Protection Act (Act). The Illinois EPA's primary role under that process is to make sure that permit applicants submit proof that local siting was obtained if this proof is required for the permits under review.

Due to this rather limited role, the Illinois EPA is not in the best position to advise the Board as to whether zoning is inadequate to address local land use issues for peaker plants. Local units of government are in a far better position to evaluate the effectiveness of their existing zoning requirements.

The Illinois EPA can, however, provide the Board with a summary of the circumstances that gave rise to the existing siting requirements in the Act. This can

provide a useful context from which the Board can evaluate whether peakers present similar issues and thus warrant siting requirements beyond local zoning.

Before Local Siting Approval Was Incorporated into the Act

Prior to passage of the Act, several different statutes formed the framework for regulation of waste disposal sites. Those statutes were preempted through passage of the Act. In its original form, the Act contained language that was interpreted by the Illinois Supreme Court as preempting local zoning ordinances and any other such authority previously held by local governments, due to the Act's express purpose of establishing a unified, state-wide program to protect the environment.ⁱ

However, for reasons that foreshadowed the concept of local siting approval, one appellate court departed from the Illinois Supreme Court's stance. The appellate court argued that if the court were to hold that the State had exclusive authority through the Illinois EPA to regulate the location of garbage disposal facilities and deny local home rule government entities a voice in the location of such operations, then numerous and immediate problems related to land use would be predictable. The appellate court went on to state that though the Illinois EPA was knowledgeable in technical matters, there was a lack of expertise and experience in land use problems that local zoning and planning boards were more likely to possess.

In past attempts to address local land use issues, the Illinois EPA had issued permits with a condition that required compliance with local zoning ordinances.ⁱⁱ When questioned on this, the Illinois EPA noted that it did not have authority to establish standards for location of refuse disposal sites. The Board struck down this type of permit condition on the grounds that such a condition was an improper delegation of authority.ⁱⁱⁱ

So, before local siting approval was incorporated into the Act, there was some confusion as to how local land use standards should be applied, along with exactly who should be applying such standards. Recognition by the State that local units of government were best suited to consider land use standards led to the creation of the requirement of local siting approval.

After Local Siting Approval Was Incorporated into the Act

In 1981 the Act was amended to include several sections that created the requirement that a permit applicant must first obtain local siting approval from the applicable unit of local government. The concept of local siting approval was embodied in Senate Bill 172 (SB 172), later enacted as Public Act 82-682 (effective November 12, 1981). Public Act 82-682 amended Section 39(c) of the Act (415 ILCS 5/39(c) and added Section 39.2 of the Act (415 ILCS 5/39.2). The local siting approval process created by Public Act 82-682 is still sometimes referred to as the “SB 172 siting process.”

Prior to 1981, comments of local authorities in Illinois were not binding on the Illinois EPA in the siting and permitting of sanitary landfills and other pollution control facilities, such as transfer stations and incinerators. However, Public Act 82-682 radically changed the permit process in 1981 by requiring the county or other unit of government in which the facility would be located to conduct hearings pursuant to Section 39.2 of the Act in order to determine whether the facility (then referred to as a regional pollution control facility, now defined as a pollution control facility) met certain statutory criteria. The Illinois EPA may not issue certain development or construction permits until those criteria are met and local siting approval is obtained.

The purpose of Public Act 82-682 was to revise the permitting system established under the Act, intentionally nullifying previous effects of the Act in relation to the powers of home rule and non-home rule units of local government. This resulted in a division of decision-making authority, formerly held by the Illinois EPA alone, between local government and the Illinois EPA.^{iv} The Illinois EPA's attempts to exercise this authority on its own had caused problems by creating the perception that the suitability of a pollution control facility to the proposed site was not taken into account as much as it would have been had the local government considered the question. The Illinois EPA had itself acknowledged that it did not have the local land use expertise that was better held by local units of government. By splitting this authority, local governments—and to a more direct extent, local citizens—could determine whether a proposed facility was appropriate to the area.

To effectuate this process, Section 39(c) of the Act states that no permit for the development or construction of a new pollution control facility may be granted by the Illinois EPA unless the applicant submits proof that the location of the facility has been approved by the County Board of the county if the location is in an unincorporated area or the governing body of the municipality if the location is in an incorporated area, in accordance with Section 39.2 of this Act.^v

In order to receive a development or construction permit, the applicant must demonstrate to the Illinois EPA that it has received local siting. The Illinois EPA then determines if the applicant meets the siting requirement or meets the exemption, and issues the permit. Local siting is therefore not necessarily required for all pollution control facilities.

Section 39.2 of the Act provides that local authorities are to consider nine criteria when reviewing an application for siting approval.^{vi} Section 39.2(g) of the Act provides that siting approval procedures, criteria, and appeal procedures provided for in Section 39.2 are the exclusive siting procedures for new pollution control facilities. But the local siting authority may develop its own siting procedures, if those procedures are consistent with the Act and supplement, rather than supplant, those requirements. In establishing the criteria, the applicant's burden of proof before the local government is the preponderance of evidence standard.^{vii}

In its present form, Section 39(c) creates a process in which local input on siting questions is integral to the Illinois EPA's permit program. If the permit at issue relates to the development or construction of a new pollution control facility, then local siting approval pursuant to Section 39.2 must first be obtained. If the permit is not for a new pollution control facility, then granting the permit does not relieve the applicant from complying with applicable local zoning ordinances, thus allowing the local unit of government to still exercise some control over the permitted facility.^{viii}

For example, in one case the Illinois EPA issued an air pollution control permit to a facility that included a condition that an incinerator discharge stack be 100 feet above grade. The facility was not a pollution control facility, thus local siting approval was not an applicable requirement. The village in which the facility was located had a zoning ordinance that restricted the height of structures to 35 feet, and the facility was unable to obtain a variance from the ordinance. In reviewing the matter, the Illinois Supreme Court concluded that while the permit was valid as issued, it did not preempt the village's ordinance.^{ix}

Therefore, the end result of placing local siting approval into the permit issuance process was to place local governments in the role of making all relevant decisions, either through zoning ordinances or the local siting approval process, regarding location suitability for a proposed facility.

Peaker Plants and Local Siting

In the Act's present form, peaker plants are not subject to the requirement of local siting approval prior to receiving a permit. Section 39(c) of the Act imposes the requirement that a permit applicant first obtain local siting approval before submitting a permit application for a construction or development permit for a new pollution control facility. Although a new peaker plant would require application for a construction permit, a natural gas-fired peaker plant would not be defined as a pollution control facility, new or otherwise, since it would not be storing, depositing, disposing, transferring, treating or incinerating some type of waste. The peaker plants that are the subject of these inquiry hearings burn natural gas as the plant's fuel. Natural gas used in that manner does not meet the definition of a waste.^x Accordingly, peaker plants do not meet the definitions of a pollution control facility or new pollution control facility that would require local siting approval prior to receiving a permit from the Illinois EPA.^{xi}

This is not to say that the facilities are exempt or preempted from any kind of restriction as to land usage. Pursuant to Section 39(c), since peaker plants are not new pollution control facilities, the granting of a permit does not relieve the applicant (i.e., the owner or operator of the peaker plant) from complying with all necessary zoning approvals from the local government. So, even though peaker plants are not subject to

the formal local siting approval process, they are nonetheless still subject to local land use standards as imposed by zoning ordinances.

Current Level of Local Land Use Controls Over Peakers Is Not Similar to Pre-Public Act 82-682 Level of Local Land Use Controls Over Solid Waste Facilities

The level of local oversight of siting for landfills, which existed prior to the enactment of Public Act 82-682, is not the same as the level of regulation that local governments now have over peaker plants. Before Public Act 82-682, only the Board was authorized by the Act to promulgate regulations that would establish location standards; further, the Illinois EPA could not delegate the responsibility to create such standards to local units of government. Local zoning ordinances were found to be preempted by the Act, effectively cutting out local government from that part of a permit review which involved the suitability of a site for a proposed facility.

However, unlike those circumstances, peaker plants *are not* exempted from local zoning ordinances. Consequently, local units of government play a significant role in determining the site suitability of a proposed peaker plant.

Conclusion

That concludes my testimony this morning. Again, I would like to thank the Board for this opportunity to present this testimony on natural gas-fired peaker power generating plants.

Illinois Environmental Protection Agency

By: _____
Thomas V. Skinner, Director

DATED: August 16, 2000
1021 North Grand Avenue Northeast
P.O. Box 19276
Springfield, IL 62794 -9276
217/782-3397

ⁱ Village of Carpentersville v. Pollution Control Board, 135 Ill.2d 463, 468, 553 N.E.2d 362, 364 (1990); Carlson at 318 and 854; Ill. Rev. Stat. 1987, ch. 111 ½, par. 1002(b).

ⁱⁱ Carlson v. Briceland, 61 Ill. App. 3d 247, 252, 377 N.E.2d 1138, 1142 (1st Dist. 1978).

ⁱⁱⁱ Browning-Ferris Industries v. Illinois Environmental Protection Agency, PCB 75-194 (August 7, 1975), pp. 3, 6.

^{iv} Village of Hanover Park v. County Board of DuPage, PCB 82-69 (September 2, 1982), pp. 2-3.

^v The original wording of this section used the term “regional pollution control facility.” However, in 1993 the U.S. District Court for the Southern District of Illinois ruled that the State’s siting program was unconstitutional since it differentiated between facilities that accepted only locally-generated waste and facilities that may also accept waste from outside those boundaries. TENNSV, Inc. v. Gade, 1993 WL 523386 (S.D. Ill. 1993). To correct this problem, the Act was amended effective December 22, 1994 (P.A. 88-681), and the term “regional” was deleted (along with other changes).

^{vi} Those nine criteria are: 1) the facility is necessary to accommodate the waste needs of the area it is intended to serve; 2) the facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected; 3) the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property; 4) (A) for a facility other than a sanitary landfill or waste disposal site, the facility is located outside the boundary of the 100-year floodplain or the site is flood-proofed, or (B) for a facility that is a sanitary landfill or waste disposal site, the facility is located outside the boundary of the 100-year floodplain, or if the facility is a facility described in subsection (b)(3) of Section 22.19a, the site is flood-proofed; 5) the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents; 6) the traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows; 7) if the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release; 8) if the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan; and 9) if the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met. The county board or governing body of the municipality may also consider the previous operating experience and past record of convictions or admissions of violations of the applicant and any subsidiary or parent corporation in the field of solid waste management when considering criteria 2 through 5 above.

^{vii} CDT Landfill v. City of Joliet, PCB 98-60 (March 5, 1998), pg. 4; Waste Management of Illinois v. Pollution Control Board, 175 Ill. App. 3d 1023, 530 N.E.2d 682, 692-93 (2d Dist. 1988).

^{viii} Section 39(c) provides that except for facilities owned or operated by sanitary districts organized under the Metropolitan Water Reclamation District Act and except for new pollution control facilities governed by Section 39.2, and except for fossil mining facilities, granting of a permit under the Act does not relieve the applicant from meeting and securing all necessary

zoning approvals from the unit of government having zoning jurisdiction over the proposed facility.

^{ix} Carpentersville at 466, 469 and 363, 365.

^x Section 3.53 of the Act (415 ILCS 5/3.53) defines a waste, inter alia, as a discarded contained gaseous material resulting from industrial, commercial, mining or agricultural operations.

^{xi} Of course, if a peaker plant proposed to burn a material that met the definition of waste, the Illinois EPA may be justified in calling for local siting approval prior to approving a permit application.