

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF AIR

June 2001

Responsiveness Summary  
for Questions and Comments on the  
Operating Permit Application from  
Ortek, Inc.

Site Identification No.: 031174ACF  
Application No.: 97050092

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## **BACKGROUND**

The Illinois EPA's permit process is comprised of two steps. First a company must obtain a construction permit from the Illinois EPA to build or install a new facility or equipment. After construction, the new equipment must be tested to show compliance with emission levels established in the permit. After the testing has been completed and shows that the equipment can comply with emission limits the company must apply for an operating permit to continue operating the equipment.

Ortek, Inc. received a construction permit in August 1998 for a thermal oxidizer to primarily control volatile organic material emissions from its used oil refining processes. The company has completed emission testing of the thermal oxidizer and submitted an application to the Illinois EPA to incorporate the oxidizer into its current lifetime operating permit.

## **COMMENT PERIOD AND PUBLIC HEARING**

Due to public interest in the facility, the Illinois EPA determined that a public comment period and hearing should be held to allow for public review and comment. Following its initial technical review of the Ortek, Inc. application, the Bureau of Air prepared a draft permit for public comment.

The public comment period began on March 18, 2001, with the publication of a notice in the Daily Southtown and Lyons Edition of the Suburban LIFE. Notices were also published in the papers on March 25, and April 1, 2001. A public hearing was held on May 2, 2001 at 7:00 p.m. at the Village of Lyons Council Chamber to receive oral and written comments and answer questions regarding the permit application and proposed permit issuance. The comment period remained open until June 2, 2001 to receive written comments.

## **FINAL DECISION**

The Illinois EPA Bureau of Air processes applications for permits for sources of emissions to the atmosphere. An air permit application must appropriately address compliance with applicable air pollution control laws and regulations before a permit can be issued.

Upon review of comments received during the public comment period and final review of the application, the Illinois EPA has determined that the application meets the standards for issuance. Accordingly, on June 6, 2001, the Illinois Environmental Protection Agency (Illinois EPA) issued the operating permit. The oxidizer must be operated in accordance with applicable regulations and the conditions of the permit. Copies of the permit may be obtained from the contact at the bottom of this document or at

[www.epa.gov/region5/air/permits/ilonline.htm](http://www.epa.gov/region5/air/permits/ilonline.htm) (look under All Permit Records, State Operating Permits, New).

### **CHANGES BETWEEN THE DRAFT AND FINAL PERMITS**

The permit as issued includes the following significant changes compared to the draft permit.

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|-----------------------------------|--|
| Equipment List                    | The McGill thermal oxidizer was added as a control for the two wipe film evaporators. The oxidizer controls the distillation towers, the wipe film evaporators and the waste water treatment plant.  |
| Condition 3 (a)                   | The thermal oxidizer was removed from the listed equipment. The emissions from the oxidizer are included in condition 4(a).  |
| Condition 3(b)                    | The annual fuel oil #2 usage limit and corresponding emission limits has changed from 225,000 gallons per year to 800,000 gallons per year.  |
| Condition 4(a) and Condition 5(a) | The volatile organic material (VOM) emissions from the distillation towers, wipe film evaporators, and waste water treatment all controlled by the thermal oxidizer has been combined into Condition 4(a). The monthly VOM emission limit has been changed to hourly emission limits. The emission limits for sulfur dioxide and carbon monoxide from the thermal oxidizer has been added. |
| Condition 6                       | The condition from the previously issued construction permit requiring twice-weekly leak detection testing utilizing the hydrogen sulfide and volatile compound analyzer has been added.   |

## QUESTIONS AND COMMENTS

The following are various comments and questions presented during both the hearing and the public comment period. The Illinois EPA's responses are set forth herein in bold type.

### I. Odors

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As with the public hearing for the construction permit held on June 3, 1998, the recent public hearing featured many questions and/or concerns from the public about odors. These questions and/or concerns are too numerous to identify individually in this document, but can be summarized as follows:

Comment: Local residents have endured odors that were noxious or unreasonably interfered with the enjoyment of life and property for several years. These odors are largely attributed to Ortek or its predecessors.

**At the last public hearing in June 1998 and the resulting Responsiveness Summary published on the date of permit issuance, the Illinois EPA recognized the long history of odor complaints alleged to have been caused by Ortek and its predecessors in the past. The Illinois EPA indicated at that time that the proposed thermal oxidizer was expected to abate odor problems by performing more effectively than the fume incinerator previously employed. The Illinois EPA also indicated that it would monitor the facility's operations to assure compliance with applicable environmental laws and regulations, noting that the agency would reserve its rights to initiate enforcement in the event that Ortek continued to cause or allow "air pollution" as defined by Section 3.02 of the Illinois Environmental Protection Act. 415 ILCS 5/3.02 (1998).**

**In early June 2000, the Illinois EPA became aware of a series of incidents in which Ortek was cited by local law enforcement authorities for causing or allowing odors in violation of a county ordinance. Following investigations by the Illinois EPA's Division of Air Pollution Control ("DAPC")/Field Operations Section ("FOS"), it was determined that the frequency and seriousness of the odors allegedly caused by Ortek warranted the initiation of the pre-enforcement process under the Illinois Environmental Protection Act. See, 415 ILCS 5/31 (1998). Soon afterwards, the Illinois EPA issued a Violation Notice ("VN") letter to Ortek.**

**Among other things, the VN letter alleged that Ortek had failed to comply with certain conditions of the August 1998 construction permit for the thermal oxidizer, including the failure to timely perform emissions testing and operating the thermal oxidizer beyond the 180-day period allowed by the permit. The letter also cited Ortek for causing or allowing air pollution by unreasonably interfering with the enjoyment of life or property of local residents on or about the following dates: May 21<sup>st</sup>, May 26<sup>th</sup>, May 30<sup>th</sup> and June 27<sup>th</sup>. Although other odor complaints may have**

been made to local authorities during the last two years, the Illinois EPA acted upon information made available to it at that time. It should also be noted that the Illinois EPA is not convinced that any and all odors detected by local residents over the last couple of years have been caused by Ortek.

In accordance with the prerequisite notice and meeting requirements of the Illinois Environmental Protection Act, additional letters were exchanged and meetings were held between Ortek and the Illinois EPA from September 2000 through late March 2001. The Illinois EPA is currently finalizing a formal enforcement referral that will be directed to the Illinois Attorney General's Office ("Illinois AGO") for civil prosecution. As in most cases, the Illinois EPA will be recommending that Ortek evaluate and/or implement any available measures which will eliminate or minimize recurrence of the past odor violations. One such measure already identified by Ortek is the proposed construction of a conservation vent and a granular activated carbon bed on a process tank known as Tank 316. In addition to both the identification of compliance measures and enforceable milestones for their implementation, the Illinois EPA will also be requesting the imposition of a civil monetary penalty.

The Illinois EPA envisions that the enforcement action will also address other concerns addressed by the general public at the recent informational hearing. Notably, the Illinois EPA is hopeful that the Cook County Department of Environmental Control ("CCDEC") and the Cook County State's Attorneys Office will participate in the settlement discussions for the purpose of resolving any remaining issues surrounding the Agreed Order entered into by them with Ortek in June 1998. One such remaining issue is the company's anticipated implementation of an odor study to evaluate potentially significant sources of odors from the facility.

In addition, the Illinois EPA is cognizant of odor complaints concerning Ortek's operations that were reported on or about May 23, 2001. The Illinois EPA received information from local law enforcement authorities about the incident and was further informed that an odor citation had been issued to the company. A subsequent investigation by the Illinois EPA's DAPC/FOS verified the occurrence of the incident, but did not reveal the precise cause of the odors. It is suspected that the odors were related to the operation of a process tank, rather than the operation or use of the thermal oxidizer. The process tank, known as Tank 316, was being filled with light hydrocarbons (i.e., distillates or "overheads") at the time of the occurrence and, due to the existence of an overhead vent commonly found on such process tanks, was vented to the atmosphere. The tank is affiliated with a part of the re-refining operations that processes materials containing a high concentration of sulfur and is likely to be among the most odiferous materials processed at the facility. The process tank is also the same tank that was involved in an earlier odor incident that occurred on June 27, 2000.

Based on this recent investigation by the Illinois EPA, it is believed that the odors documented from the May 23, 2001, incident were more than likely caused by

**Ortek. The Illinois EPA has also concluded that the odors resulted in an “unreasonable” interference with the enjoyment of life or property by local residents so as to constitute “air pollution” under the Illinois Environmental Protection Act. At this juncture, the Illinois EPA plans to seek additional enforcement to address the incident. As such, the formal pre-enforcement notice process established under Section 31 of the Illinois Environmental Protection Act must be repeated unless waived by the company. The matter will ultimately be consolidated into the lawsuit addressing the earlier May and June 2000 air pollution violations.**

Comment: The residents deserve a healthy environment in which to live.

**This comment is acknowledged and shared by the Illinois EPA. All citizens of the State of Illinois enjoy a constitutional right to a healthy environment and the Illinois EPA is proud of the progress that has been made in recent years to dramatically improve Illinois’ environmental quality.**

Question: What would be considered an unreasonable odor?

Question: How is that defined?

Question: Would you consider being outdoors and you are trying to enjoy the fresh air, as fresh as we can get in this area, and all of a sudden here comes this fume and odor, you can't stay outdoors and enjoy the weather, you have to go in. To what degree would you have to go?

Question: What about people who have asthma and emphysema?

**Air pollution is defined by the Illinois Environmental Protection Act as “the presence in the atmosphere of one or more contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life, to health or to property, or to unreasonably interfere with the enjoyment of life or property.” 415 ILCS 5/3.02 (1998). Illinois courts have recognized that this definition creates two distinct categories of air pollution: 1) air pollution which causes an injury to a person(s) life or property, and 2) air pollution which “unreasonably interferes” with a person(s) enjoyment of life or property. See, Incinerator, Inc. v. Pollution Control Board, 59 Ill.2d 290, 319 N.E.2d 794 (Ill. 1974).**

**Most odor cases commonly involve the second category of air pollution. In evaluating this type of air pollution case, the Illinois Supreme Court has observed the following:**

**“There is little that any person can do which does not in some degree ‘interfere with the enjoyment of life or property’ of other persons. The very**

**act of breathing consumes oxygen. In our opinion the word ‘unreasonably’ as used in Section 3(b) was intended to introduce into the statute something of the objective quality of the common law, and thereby exclude the trifling inconvenience, petty annoyance or minor discomfort.” [case citation omitted].**

**Processing and Books, Inc. v. Pollution Control Board, 64 Ill.2d 68, 351 N.E.2d 865 (Ill. 1976).**

**Because of the “reasonableness” standard inherent in the definition, a focal point of this type of air pollution case is those facts and circumstances that bear upon the severity or impact of the alleged odors. Thus, evidence that a complainant(s) cannot often enjoy a back-yard barbeque, must frequently close all windows to a house or business, or avoid participating in the normal social, economic or recreational pursuits because of the interference of odors are important considerations in any such lawsuit. The Pollution Control Board or reviewing court will then determine, based on the totality of the evidence presented at trial, whether a cause of action based on this category of air pollution can be sustained.**

Question: Will the Illinois EPA still accept odor complaints or should they be directed to someone else?

Question: Will the Illinois EPA accept the odor complaints that the City of Lyons receives?

**Any odor complaints regarding Ortek’s facility can be forwarded to the DAPC/FOS field inspector, George Ordija, in the Des Plaines regional office located at 9511 Harrison Street, Des Plaines, Illinois 60016. The phone number for the regional office is (847)294-4000. A more common practice in the past has involved local residents directing their complaints to the CCDEC, the State’s Attorneys Office or local law enforcement authorities. The Illinois EPA is not aware of any reason why the latter practice should be discontinued for the present time, however, future consideration should perhaps be given to developing a more streamlined and/or efficient system for the reporting of odor complaints to the various governmental officials. To the extent that the CCDEC and the State’s Attorneys Office may be directly involved in discussions pertaining to the impending enforcement action, this issue would seem an especially appropriate topic. Any suggestions or comments by the public regarding this issue are welcome and should be addressed to the attention of the assigned Assistant Counsel, Robb Layman, at 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276.**

A representative from the Lyons Fire Department expressed several concerns relating to the impact that odor complaints and the resulting investigations have placed upon departmental resources, including personnel and equipment.

**The Illinois EPA acknowledges the impact that past odor complaints have imposed upon local police and emergency response authorities. In order to minimize the impact that any future odor complaints may impose upon these authorities, the Illinois EPA will strive to work with the various governmental officials to improve and/or coordinate a system for responding to and investigating odors that may emanate from Ortek or other industrial sources located in the area. As noted in the previous response, this issue may also be a suitable topic for discussions that will take place as part of the enforcement action. Any suggestions or comments by the public regarding this issue are welcome and should be addressed to the attention of the assigned Assistant Counsel, Robb Layman, at 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276.**

Question: Do you know what the chemical compounds are that make up the oily, obnoxious odor that we smell or what causes it?

**As a general rule of thumb, the Illinois EPA does not speculate on what odorous compound was present in the atmosphere on any given day unless a complaint was filed with the Illinois EPA field office and a field inspector was able to investigate the apparent source of odors or emissions. On any given day, odors may exist from numerous sources at any given location.**

**Based on previous investigations by the Illinois EPA in this case, it is believed that the odors in several of the reported incidents emanated from a petroleum distillate product or fuel oil. The waste oil processed at the facility is a complex mixture of hydrocarbons that represents the heavier fraction of the oil and does not easily volatilize into the air. The waste oil contains hydrogen sulfide and mercaptans as impurities. Hydrogen sulfide can be detected by the human nose at very low levels in the tens of parts per billion that are not considered to be hazardous to human health. As noted herein, the thermal oxidizer is supposed to oxidize the hydrogen sulfide and mercaptan into sulfur dioxide. Testing results from the consulting firm that conducted the emissions testing revealed sulfur dioxide levels in small quantities that were below applicable emission levels. The emissions limit for sulfur dioxide from the thermal oxidizer set forth in the proposed operating permit is 7.9 tons per year.**

## **II Enforcement**

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Comment: This company directly affects the residents of the Village of Lyons, but since it is in the Village of McCook, the Village of Lyons cannot enforce against the company.

Question: The residents need the Illinois EPA to enforce the regulations.

**As explained at the public hearing and stated herein, the Illinois EPA will be proceeding with enforcement against Ortek to address past odor violations that occurred in May and June of 2000 and, more recently, in May 2001.**

**If citizens or local municipal authorities are not satisfied with the efforts made by state regulators to enforce against an alleged violator of Illinois Environmental Protection Act's requirements, please note that a State's Attorney of the county in which the violation occurred is authorized to seek an injunction to restrain violations of those requirements. See, 415 ILCS 5/42(e). In addition, any person may institute their own enforcement action against an alleged violator based on violations of the Environmental Protection Act, the Pollution Control Board's regulations or permits. See, 415 ILCS 5/31(d).**

Comment: Ortek's record of noncompliance clearly suggests that the facility be shut down or face severe court actions and penalties.

**Section 43 of the Illinois Environmental Protection Act provides that an immediate injunction to halt any discharge or other activity causing or contributing to circumstances of substantial danger to the environment or public health may be sought by the Illinois AGO or a State's Attorneys Office. See, 415 ILCS 5/43 (1998). Circumstances meeting the aforementioned standard are not believed to exist at present. Such circumstances are also not believed to have existed with respect to Ortek's alleged odor violations occurring in May and June of 2000 or in May 2001. For this reason, it is unlikely that a requested shut-down of facility operations would have been granted by a circuit court.**

**As mentioned above, the Illinois EPA will be requesting that the Illinois AGO represent it in a formal enforcement action and to seek the imposition of a civil monetary penalty that is commensurate with the alleged violations caused by Ortek.**

Question: How does the Illinois EPA determine whether to pursue a violation for an unreasonable odor nuisance?

Question: How many complaints are needed over what kind of duration?

**In determining whether to pursue enforcement for violations of environmental laws or regulations, the Illinois EPA evaluates the facts and applicable law that are presented on a case-by-case basis. The Illinois EPA and/or its designated authority will routinely investigate an odor complaint even where only one complainant has come forward. The Illinois EPA will also frequently initiate the formal pre-enforcement process (i.e., send an alleged violator a violation notice or noncompliance advisory letter), especially where the alleged interference caused by the alleged odors is significant or where a likelihood of recurring interference exists in the future. Finally, the Illinois EPA will refer certain cases for enforcement based on a combination of factors, including the nature and/or severity of the odors, the duration of the violations, the reasons underlying the cause of the odors, etc. If the alleged odors in a given case have impacted a significant number of people, that fact is certainly considered by the Illinois EPA in evaluating the nature and/or severity of the harm caused by the odors. However, there is no numerical threshold for complainants that must be met before the Illinois EPA will decide to initiate formal enforcement for odor violations.**

### **III Regulatory Compliance**

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Several questions and/or comments presented at the public hearing touched on whether Ortek is currently in compliance with environmental requirements.

**As discussed in the Responsiveness Summary for the August 1998 construction permit, Section 39 of the Illinois Environmental Protection Act imposes upon the Illinois EPA a duty to issue permits for the construction, installation or operation of any type of facility, equipment, vehicle, vessel or aircraft that is required to obtain a permit by the Pollution Control Board upon proof by the permit applicant that the facility, equipment, vehicle vessel or aircraft will not cause a violation of the Act or regulations adopted thereunder. The Pollution Control Board and Illinois courts have recognized that this standard for permit issuance requires the Illinois EPA to review the permit application and then determine whether “the application and the supporting documents demonstrate that the Environmental Protection Act will not be violated if the requested permit is issued.” City of East Moline v. Illinois EPA, PCB No. 86-218 (September 8, 1983); Illinois EPA v. Pollution Control Board, 118 Ill.App.3d 772, 455 N.E.2d 158 (1983).**

**The Ortek facility is in compliance with the requirements of the Illinois Environmental Protection Act and the Pollution Control Board’s air pollution regulations at this time. In this instance, Ortek has provided a permit application to**

**the Illinois EPA that demonstrates that the thermal oxidizer will be operated in a manner that complies with environmental requirements.**

Comment: Ortek has not complied with all of the special conditions in the Illinois EPA construction permit for the thermal oxidizer, such as conducting specific pollutant emission tests within 45 days of start-up and complying with all provisions of the Cook County court order.

**The Illinois EPA does not dispute that Ortek did not fully comply with the terms of the August 1998 construction permit, most notably, the operation of the thermal oxidizer beyond the 180 days authorized after start-up of the thermal oxidizer and the failure to conduct emissions testing within 45 days of start-up. Ortek and its consultant performed emissions testing on September 19, 2000, and a testing report was submitted to the Illinois EPA on or about December 8, 2000. Ortek also submitted a permit application for the operation of the thermal oxidizer to the Illinois EPA on December 8, 2000.**

**It is also not disputed that Ortek has failed to comply with some of the provisions of the Agreed Order, including the timely implementation of an odor study. Although such actions constitute violations of the construction permit, the Illinois EPA is compelled to address them in the context of the enforcement action for the reasons set forth below.**

Some citizens also questioned why the Illinois EPA could not deny the pending permit application because of past odors associated with Ortek's operations.

**One explanation presented at hearing addressed the scope of the Illinois EPA's permitting authority. The Pollution Control Board and Illinois courts have recognized that the Illinois EPA's permitting authority is not absolute. Permitting and enforcement responsibilities vested in the Illinois EPA under the Illinois Environmental Protection Act have been deemed separate and distinct functions. For this reason, the Pollution Control Board and Illinois courts have held that the Illinois EPA cannot lawfully deny a permit as a substitute for enforcement. See, Environmental Protection Agency v. Pollution Control Board, 252 Ill.App.3d 828, 624 N.E.2d 402 (3<sup>rd</sup> Dist. 1993); ESG Watts, Inc., v. Pollution Control Board, 286 Ill.App.3d 325, 676 N.E.2d 299 (3<sup>rd</sup> Dist. 1997); Waste Management v. Illinois Environmental Protection Agency, PCB Nos. 84-45, 84-61 and 84-68 (October 1, 1984); Centralia Environmental Services, Inc., v. Illinois Environmental Protection Agency, PCB No. 89-170 (October 25, 1990).**

**In those situations where a permit denial would rest upon alleged or un-adjudicated violations, the Pollution Control Board and courts have instructed the Illinois EPA to pursue enforcement instead of denying the permit. The Illinois EPA must confine its permitting determinations to the issue of whether the permit applicant has**

**demonstrated that its equipment or facility will comply prospectively. While this rationale may be perceived as overly-legalistic, the Illinois EPA is obligated to take such legal considerations into account, especially where the permitting decision is controversial and is expected to involve separate or related litigation.**

**Another reason offered by the Illinois EPA at hearing emphasized that most of the significant odor events that were documented by the Illinois EPA from Ortek's operations occurred almost one year ago. As noted above, the Pollution Control Board has frequently held that the Illinois EPA's permitting decisions must be based on a permit applicant's future compliance, not past noncompliance. A permit denial by the Illinois EPA, in this instance, would not be supported by law unless odors from the applicant's operations were of such nature and frequency as to make future noncompliance either a certainty or a more than likely occurrence.**

**Notwithstanding the latest odor incident occurring on May 23, 2001, the Illinois EPA does not believe that the aforementioned standard has been met under the present circumstances. The Illinois EPA is not convinced that the incident reflects an inability by Ortek to demonstrate future compliance with the applicable environmental laws and regulations and, accordingly, does not warrant a denial of the company's request to operate the thermal oxidizer at this time.**

#### **IV. Agreed Order**

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Question: Under the consent order with Cook County, Ortek was to submit reports to Cook County every two months. Did the company submit those reports?

**Among other things, the Agreed Order entered into between Ortek, CCDEC and the State's Attorneys Office required the company to provide written updates to county officials regarding the status of all matters covered by the order. The Agreed Order required Ortek to submit such progress reports to Cook County every two months. In discussions with the Illinois EPA and statements presented at hearing, Ortek has maintained that those reports have been submitted. Because the Illinois EPA was not a signatory to the Agreed Order or a designated recipient of the progress reports, the Illinois EPA is unable to verify Cook County's timely receipt of the progress reports.**

Question: Has Ortek been using an odor analyzer as required by the Agreed Order?

Question: How long has Ortek made use of the odor analyzers?

**Both the Agreed Order and the terms of the August 1998 construction permit required Ortek to utilize odor analyzers (i.e., photo ionization detector and a hydrogen sulfide meter) to survey its re-refining processes on a bi-weekly basis and to maintain records of such data collection. In discussions with the Illinois EPA and statements presented at hearing, Ortek has maintained that it has complied with these requirements.**

**Although the Illinois EPA does not currently have any reason to doubt the veracity of Ortek's contention, the Illinois EPA will strive to provide greater scrutiny of the company's monitoring and record-keeping practices regarding the future use of the odor analyzers. In addition, it should be noted that the bi-weekly monitoring requirements of the August 1998 construction permit are being incorporated into the terms of the operating permit.**

Question: Has the company hired an independent company to perform an odor study to determine what parts of the facility the odors are coming from?

**Based on representations made by company officials to the Illinois EPA and at hearing, Ortek has recently contracted with a consulting firm to conduct an odor evaluation in accordance with the terms of the Agreed Order. The company has further indicated that the odor study is to be performed this summer. The Illinois EPA believes that the completion of the odor study may be of significant value in identifying potential sources of fugitive odors that are not currently vented to the thermal oxidizer. Moreover, the Illinois EPA is hopeful that any remaining issues pertaining to the odor study, including the implementation of its findings, will be addressed through the impending enforcement action in joint consultation with the CCDEC, State's Attorneys Office and the Illinois AGO.**

Question: Why hasn't the company performed the odor evaluation before now?

**The Illinois EPA is unable to speculate as to why the company failed to perform the odor study in a timely manner.**

Question: Was a request for extension of the time to perform an odor study made and, if so, when was the request for an extension submitted to authorities?

Question: Can we get a copy of the request for the extension?

**The Illinois EPA does not possess independent knowledge of whether a request for extension was submitted to Cook County or, if so, whether any purported grounds for the extension were supported by good cause. Any person interested in information concerning such a request for extension or other proposed modifications to the Agreed Order should contact representatives from the Cook County State's Attorneys Office.**

Comment: Ortek has not complied with all of the requirements of the June 2000 Agreed Order with the CCDEC.

Comment: The Village of McCook is opposed to the issuance of any permits for the Ortek, Inc., facility until such time as Ortek, Inc., operates their facility in compliance with the Cook County and McCook pollution control standards.

Question: The facility is in violation of the consent order with Cook County. Why isn't that a basis for denial of the Illinois EPA permit?

**The Illinois EPA was not a signatory to the Agreed Order that was entered into by the CCDEC and the State's Attorneys Office. Although the Illinois EPA referenced the Agreed Order in the conditions which accompanied the August 1998 construction permit issued for the thermal oxidizer, it has not been considered necessary or appropriate for the Illinois EPA to circumvent the enforcement discretion reserved by the CCDEC and the State's Attorneys Office by enforcing the Agreed Order through the construction permit. Rather, the Illinois EPA has been hopeful that any remaining issues surrounding the Agreed Order will be resolved with Ortek through the joint participation and assistance of local authorities who helped shape those legal obligations, especially with respect to the implementation of an odor study.**

**And as previously explained at the public hearing and noted herein, a permit denial based on violations of the construction permit or the Agreed Order would likely be deemed an impermissible use of the permitting process. For this reason, the Illinois EPA is obliged to distinguish between its permitting and enforcement responsibilities in this matter. Authorization for the operation of the thermal oxidizer will be granted because Ortek has demonstrated that the control equipment will not cause a violation of applicable laws and regulations. At the same time, an enforcement action will proceed against Ortek to ensure that past odor violations are not repeated.**

Question: Why wasn't the Illinois EPA a signatory to the Agreed Order?

**As the Illinois EPA explained in the Responsiveness Summary for the August 1998 construction permit, the CCDEC and the State's Attorney's Office were the first to become involved in prosecuting Ortek for odor violations that occurred in September and October of 1997. By the time that the Illinois EPA was reviewing the proposed Compliance Commitment Agreement submitted by Ortek responding to the alleged violations, discussions between local officials and the company to address the odor problems were already well underway. Because of the prompt action taken by the CCDEC and the States Attorney's Office, the Illinois EPA deferred enforcement against Ortek at that time.**

## **V. Permit-related Matters**

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Comment: If you are going to issue the permit it should include with some kind of provisions that Ortek is on probation for the next couple years.

**The Illinois EPA lacks the statutory authority to impose any type of probationary restriction on Ortek's operations.**

Question: Certain portions of the permit application submitted by Ortek may contain false or misleading information, including certain references or parts of the emissions testing submission.

**The Illinois EPA is not aware of any part or portion of the pending permit application that constitutes false or misleading information. Absent verifiable facts to the contrary, this assertion is unfounded.**

**A performance test was required for the thermal oxidizer to ensure that it would comply with all the applicable regulations. The performance test required that the carbon monoxide, volatile organic material, hydrogen chloride, and particulate matter emissions from the thermal oxidizer be measured. Specifically, the oxidizer must achieve at least 85% organic emission reduction. Testing was conducted for the volatile organic material destruction efficiency and the hydrogen chloride, sulfur dioxide and carbon monoxide emissions in accordance with the United States Environmental Protection Agency's ("USEPA") methods. The results of the test verified that the emissions of hydrogen chloride, sulfur dioxide and carbon monoxide are in compliance with the applicable regulations. Furthermore, the test shows that the volatile organic material destruction efficiency requirement of 85% was more than sufficiently achieved; the results show a destruction efficiency of 99%.**

The particulate matter emissions were not measured during the performance test. Ortek provided sufficient technical information to the Illinois EPA in its emissions test report to justify a waiver of the testing requirement for this pollutant. The main component of emissions from a re-refining plant is volatile organic material. Based on studies conducted by the USEPA, particulate emissions from the distillation and wastewater treatment systems will be insignificant. The process uses raw materials consisting of liquid-phase products, rather than solid material. The use of liquid raw materials result in the release of various gases and vapors, whereas particulate matter emissions are typically generated only from the use of solid raw material. The thermal oxidizer is used to treat gaseous waste stream from a vapor recovery unit that contains insignificant amount of particulate loading.

In lieu of testing the thermal oxidizer for particulate emissions by using the method indicated in the construction permit, the company did perform an opacity observation to verify that no visible particulate emissions were being emitted from its operations. Based on the afore-mentioned reasons, the Illinois EPA is confident that the thermal oxidizer is in compliance with all applicable particulate matter regulations and that particulate emissions testing was not necessary.

Question: Does the Illinois EPA have the authority to rescind or revoke a permit in order to ensure compliance?

The Illinois EPA does not possess the statutory authority to order the revocation of a permit. The Pollution Control Board, however, does possess the requisite legal authority to revoke a permit as a penalty for violations of applicable regulations or permit. See, 415 ILCS 5/33(b) (1998). Permit revocations by the Pollution Control Board are a severe sanction and not something of a common occurrence. For instance, the Board has imposed the remedy where administrative citations, prior enforcement actions and monetary penalties had not deterred the defendant from its continuing noncompliance; People v. ESG Watts, Inc., PCB No. 96-107 (February 5, 1998); and where the adjudicated violations were of an extreme nature and little or no corrective action had been undertaken by the defendant for several years. People v. John Prior and Industrial Salvage, Inc., PCB No. 93-248 (July 7, 1995).

## **VI Health-related Matters**

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Question: What chemical was released on June 26, 2000 that created the odor?

Question: Was this event a health threat?

Based on an inspection by the DAPC/FOS, an apparent odor release from the Ortek facility was documented on June 27, 2000. According to the field inspector's findings, plant personnel were transferring product from one tank (i.e., Tank 316)

to another temporary storage tank (i.e., Tank 146) when the apparent odor release occurred. The process tanks store or convey a petroleum distillate product or light hydrocarbons that is used as a dust suppressant on coal stockpiles. As acknowledged by Ortek, the light hydrocarbons contain the highest concentration of sulfur among the various byproducts produced at the facility and are the most odorous. The Illinois EPA does not believe that there was any type of health hazards associated with the June 27, 2000, incident.

Question: Are the odors generally experienced by the public from the Ortek facility a health hazard?

The Clean Air Act requires the United States Environmental Protection Agency (“USEPA”) to set National Ambient Air Quality Standards (“NAAQS”) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. *Primary standards* set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. *Secondary standards* set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. NAAQS are based on worldwide research on health effects or secondary environmental effects.

The USEPA’s Office of Air Quality Planning and Standards has set NAAQSs for six principal pollutants, which are called "criteria" pollutants. Volatile organic material, carbon monoxide and sulfur dioxide are classified as criteria pollutants. The standards are legally enforceable limitations and any person causing a violation of the standards is subject to enforcement proceedings pursuant to the federal Clean Air Act. The standards have also been designed for use as a basis for the development of implementation plans by State and local agencies for the abatement and control of pollutant emissions from existing sources, as well as the determination of air emission limitations designed to ensure that population and economic growth trends do not add to a region's air pollution problems.

To the knowledge of the Illinois EPA, the Ortek facility is not in violation of any NAAQSs regulated under federal law. In addition, Ortek is in compliance with all applicable state and other federal air pollution emission standards. The Illinois EPA does not believe that the past odor incidents posed a significant health hazard. It should be noted that Ortek routinely monitors and samples used oil that is received at the plant to ensure that the oils are non-hazardous in nature.

Comment: Based on information from the American Cancer Society, there are more people dying of cancer in the surrounding villages of Lyons, McCook, Summit and Forestview than anywhere else.

**As explained in the Responsiveness Summary for the August 1998 construction permit, used oil that is typically recycled at this facility is a complex mixture of many different hydrocarbons. A small portion of the chemical compounds in the mixture could be considered to be probable human carcinogens. However, the high molecular weight compounds found in this type of oil mixture will vaporize or volatilize to only a very limited degree. The Illinois EPA, together with the Illinois Department of Public Health, have previously determined the potential exposure by inhalation of airborne contaminants from the waste oil to be minimal.**

**Moreover, cancer is not a rare disease. One out of every three persons in the United States will likely develop some form of cancer in their lifetimes and one out of nine women will develop breast cancer. Most every neighborhood in the Chicago metropolitan area could expect to experience cancer cases at any point in time. If citizens are concerned about any reported increased incidence of cancers in their neighborhoods, however, they can consult with officials from the state or local Department of Public Health for information or requests regarding possible health studies (i.e., epidemiological surveys).**

## **VII Facility Operations**

Comment: Ortek has done nothing to locate odor problems which the Village of McCook states occur when oil is transferred from one tank to another.

Question: What is the company doing to control odors from processes that do not vent through the thermal oxidizer?

**To date, Ortek has identified at least two process tanks (i.e, Tanks 316 and 146) that have historically been potential sources of odors at the facility. Both process tanks were involved in the June 27, 2000, incident. Tank 316 may also have been the source of the more recent May 23, 2001, odor incident. Ortek has stated that it will discontinue use of the temporary storage tank identified as Tank 146. Ortek has also stated its intentions to reduce potential odors from the remaining Tank 316 by installing a conservation vent and a granulated activated carbon bed on the tank. The Illinois EPA is hopeful that the installation of control equipment will result in the abatement of odors from the remaining process tank. Ortek could conceivably identify other such measures as part of its performance of the odor study. Ortek has committed to implement the odor study this summer.**

Question: Is it true that the thermal oxidizer will remove a substantial portion of the more odorous, carbon-based materials?

**This statement is correct. The thermal oxidizer will control the organic compounds. Any hydrocarbons will be oxidized to carbon dioxide and water, any organic compounds containing sulfur (e.g., hydrogen sulfide) will be oxidized to sulfur dioxide and water, and any organic compounds containing nitrogen (e.g., ammonia) will be oxidized to nitrogen oxide and water.**

Question: The operating temperature of the thermal oxidizer is established at 1200 degrees Fahrenheit. The USEPA-CICA Fact Sheet on thermal incinerators states that typical design conditions needed to meet greater than equal to 98 percent control or 20 parts per million by volume compound exit concentrations are 870 degrees centigrade (i.e., 1600 degrees Fahrenheit combustion temperature). Unlike the proposed permit, the USEPA-CICA document provides for a residence time and specifies proper mixing.

**Based on the emissions testing results, Ortek's thermal oxidizer is capable of achieving a destruction efficiency of 99% at temperatures ranging from 1175 degrees Fahrenheit to 1350 degrees Fahrenheit. This temperature is the optimal operating temperature for this thermal oxidizer. The stack test was conducted at the maximum production rate for the facility. In addition, the design of the thermal oxidizer provides an estimated gas residence time of 2.5 seconds at approximately 1200 degrees Fahrenheit and additional residence time of greater than 1.3 seconds at temperatures ranging from 1200 to 800 degrees Fahrenheit. These conditions result in a high destruction efficiency of 99%.**

Question: Would outside testing firms or other authorities be able to verify the effectiveness of this type of thermal oxidizer?

**Yes. Another source for information on the operation and effectiveness of this type of thermal oxidizer may be found in a document published by the USEPA entitled "Air Pollution Technology Fact Sheet: Thermal Incinerator".**

Question: What kind of increased emissions of the sulfur oxidization will result if the thermal oxidizer is approved for operation?

**Based on the emissions testing results, the maximum permitted emissions of sulfur dioxide from Ortek's thermal oxidizer is 1.8 pounds per hour and 7.9 tons per year. This amount is consider minimal and will result in insignificant adverse health or environmental effects. The Illinois EPA employs air monitoring stations throughout Illinois which monitor for specified contaminants such as particulate, sulfur dioxide, nitrogen oxide, carbon monoxide and ozone. At least one monitoring station for**

**particulate matter is located nearby in Lyons Township at the Village Hall. Other monitoring stations for sulfur dioxide are located in Cicero and Bedford Park. It should be noted that this area is designated as an attainment area for sulfur dioxide.**

Comment: The proposed permit mentions a limit for Hazardous Air Pollutants (“HAPs”) which shall be less than 10 tons per year for any single HAP and 25 tons per year for any combination of such HAPs.

Question: What HAPs are being emitted by the facility or have been emitted in the past?

Question: Will there be any kind of monitoring for HAPs?

**The emission limits established in the proposed permit of 10 tons/yr for any single HAP and 25 tons per year for any combination of HAPs is a general condition for most operating permits that are considered a minor source. This permit condition states that the emissions of all HAPs from the source is less than the major source threshold level and that the source does not require a Clean Air Act Permit Program (CAAPP) permit.**

**Ortek is only permitted to process used oils that are non-hazardous. The facility routinely samples oil that is received at the plant to ensure that the oil is non-hazardous. The one HAP that is likely to be emitted from the manufacturing process is hydrogen chloride. The thermal oxidizer will convert organic compounds containing halogens into hydrogen chlorides. Based on the emissions testing results, the amount of hydrogen chloride that will be emitted as a HAP is quite negligible. In the absence of some valid reason or legitimate purpose, the company is not being required by the permit to monitor for HAPs at this time.**

Comment: If we have continuing odor problems, the Illinois EPA should consider the use secondary seals on storage tanks or reduction of number of storage tanks.

**All tanks that store oil or any other organic liquids with low vapor pressure (meaning that these volatilize only to a very small degree), such as the liquids stored on this site, are not required by current regulations to possess control devices. Secondary seals are typically required for large size gasoline storage tanks with high volatility.**

**The company has proposed a plan to install the conservation vent and granulated activated carbon bed to control the emissions from at least one tank that was identified as a potential source of odors. Whether the company should install additional controls or equipment on tanks or reduce the number of tanks used at**

**the facility may be dependent on the findings of the odor study and the outcome of any settlement negotiations that occur in the impending enforcement action.**

Question: Is this oxidizer going to address the wastewater problem?

**Emissions from Ortek's wastewater treatment plant will be controlled by the thermal oxidizer.**

Question: The clay or filter presses were identified as potential sources of odors. The process generates fumes and smoke which are responsible for odors.

**The clay or filter presses are no longer in operation at the Ortek facility and were removed from service several years ago. The equipment is not identified in the lifetime operating permit as a permitted emission unit or process.**

## **VIII Miscellaneous**

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Comment: This site is supposedly highly contaminated with waste oil.

Question: Is the Illinois EPA aware of any land contamination at the site?

**As explained in the Responsiveness Summary for the August 1998 construction permit, Ortek is a voluntary participant in the Site Remediation Program. The Illinois EPA has previously determined that no further remediation is necessary for at least one-third of the area of contamination. Ortek has reportedly completed remediation at an additional one-third portion of the site and will be working towards completing remediation at the remaining area in the near future. Apart from the designated area of contamination that will be fully remediated, the Illinois EPA is not aware of any other threat of land pollution posed by the site at this time.**

Comment: The permit documents were unavailable to the public for a period of time while on display at the Lyons public library.

**The Illinois EPA acknowledges this comment. The Illinois EPA understands that the permit documents were unavailable to the public for a short time as a result of being misplaced. The Illinois EPA regrets this type of occurrence, however, it is not believed that the purpose of the public hearing or the integrity of the permitting process was compromised.**

Comment: If the thermal oxidizer doesn't work and the public still experiences an odor problem, we would hope that the Illinois EPA steps in quickly to resolve the issue.

Question: What happens if the thermal oxidizer doesn't work after the issuance of the permit? What then?

**The Illinois EPA will continue to monitor facility operations for compliance with applicable environmental requirements and the lifetime operating permit. One means of ensuring future compliance is through periodic field inspections and the utilization of the pre-enforcement and/or enforcement process for any apparent violations. In the event that the state enforcement action results in a negotiated settlement, a consent order may be available as another means of enforcing future compliance. In addition, citizen involvement is a valuable means of monitoring facility compliance. Local residents remain free to voice any concerns about odor problems that may arise or continue in the future. As previously mentioned, these concerns can be directed to the Illinois EPA, the Illinois AGO, CCEDC, Cook County State's Attorneys Office or other elected officials.**

**The odor study will hopefully address yet unknown sources of odors from the company's operations. If odors causing air pollution (i.e., unreasonable interference with the enjoyment of life or property of local residents) still persist even after the resolution of the state enforcement action and the completion of the odor study, Ortek will be expected to take appropriate and necessary action to eliminate or minimize such odors. Until Ortek evaluates its potentially significant sources of odors through the odor study, it is too premature to identify those measures that might have to be implemented to remedy future noncompliance.**

**FOR ADDITIONAL INFORMATION**

Questions about the public hearing and permit decision should be directed as follows:

Public Hearing Procedures and Exhibits

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Responsiveness Summary (question on or extra copies)

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