ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR

AUGUST 2007

Responsiveness Summary for Public Questions and Comments on the Construction Permit Application from Wight Lightning Acquisition 1, LLC

Site Identification No.: 201813AAH
Application No.: 06080059

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INTRODUCTION

Wight Lightning Acquisition 1, LLC (Wight Lightning) has applied for an air pollution control permit to build a dry mill fuel ethanol production plant at 1951 South Meridian in Rockford. After review of the application, the Illinois Environmental Protection Agency (Illinois EPA) prepared a draft construction permit and held a comment period, with a public hearing, to receive comments on the proposed issuance of the requested permit.

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 of a construction permit. Accordingly, on August 14, 2007, the Illinois EPA issued a permit to Wight Lightning to construct the proposed plant. The plant must be constructed and operated in accordance with applicable regulations and the terms and conditions of the issued permit.

DESCRIPTION OF THE PROPOSED PROJECT

Wight Lightning has proposed to construct a plant to produce ethanol from corn. The plant would be designed to have a nominal capacity of 116 million gallons per year of denatured ethanol. The denatured ethanol produced from the plant would be used in motor vehicle fuel. The plant would produce ethanol by batch fermentation of ground corn, followed by processing to separate out and purify the ethanol. The stillage material remaining after the ethanol production process would be dried and sold as animal feed. Natural gas will be used as the fuel in the feed dryers and in the boilers that provide the steam for the ethanol production process.

COMMENT PERIOD AND PUBLIC HEARING

The Illinois EPA Bureau of Air evaluates applications and issues permits for sources of emissions. An air pollution control permit application must appropriately address compliance with applicable air pollution control laws and regulations before a permit can be issued. Following its initial review of the application submitted by Ford Heights Ethanol, the Illinois EPA Bureau of Air made a preliminary determination that the project met the standards for issuance of a construction permit and prepared a draft permit for public review and comment.

The public comment period began on March 17, 2007, with the publication of a notice in the Rockford Register Star. When a public hearing was scheduled on the proposed project, additional notices were published in the Rockford Register Star on March 24th and 31st, 2007.

A public hearing was held on May 1, 2007 at Auburn High School, 5110 Auburn Street in Rockford to receive oral comments and answer questions regarding the application and draft air permit. The comment period closed on May 31, 2007.

AVAILABILITY OF DOCUMENTS

Copies of the issued permit and this Responsiveness Summary are available through the following means:

1. To obtain a printed copy of the documents by mail and free of charge, contact the Illinois EPA by telephone, facsimile or electronic mail:

   Illinois EPA
   Bradley Frost, Office of Community Relations
   217-782-7027 Desk Line
   1-888-372-1996 Toll Free Environmental Helpline
   217-782-9143 TDD
   217-524-5023 Facsimile
   brad.frost@illinois.gov

2. View the documents at one of the following repositories:

   Illinois EPA – Des Plaines
   Regional Office
   4302 N. Main
   Rockford, Illinois 61132
   815/987-7750

   Illinois EPA
   Bureau of Air
   1021 North Grand Avenue, East
   Springfield, Illinois 62794
   217/782-7027

3. Electronic copies are available by accessing the World Wide Web at www.epa.gov/region5/air/permits/ilonline.htm (look under All Permit Records (sorted by name), State Construction Permit, New).

COMMENTS AND QUESTIONS WITH RESPONSES BY THE ILLINOIS EPA

1. How would the proposed plant make fuel ethanol?

   The proposed plant would make ethanol from corn by batch fermentation. The corn delivered to the plant would first be finely ground or milled, mixed with water, and made into "mash" using enzymes that convert the starch in the corn into sugar. This mash would be processed in batches in seven fermentation tanks, with the addition of yeast to biologically convert the sugar into ethanol. After fermentation of each batch of mash is complete, the beer in the fermentation tank would be processed by distillation and molecular sieves to separate out the ethanol and remove all water. The resulting anhydrous ethanol would then be denatured with natural gasoline to prevent human consumption and restrict its use to motor fuel. The denatured ethanol would be stored until shipped by truck or rail to customers.

2. Why would the plant also make animal feed?

Animal feed would be made from the non-starch material in corn (bran, protein, oil, etc.) that remains after the starch in corn has been converted into ethanol and from the spent yeast. When the beer from the fermentation tanks is processed to separate out ethanol, this material is recovered as "stillage." This stillage is first processed by enclosed centrifuges and enclosed evaporators to reduce its water content, with the recovered water reused in making mash. The resulting wet cake is then processed in natural-gas fired dryers to further reduce the water content to a level at which the feed can be stored for months and transported long distances.

3. Why is the proposed plant a source of emissions?

Due to their nature, certain operations at the plant emit air pollutants. A variety of practices and equipment would be used to minimize and control these emissions, as listed in Attachment 1 of the permit. With these control measures, the plant would be considered a minor source of emissions under applicable Illinois law, i.e., the Clean Air Act Permit Program.

The operations at the plant that are of particular interest for emissions are fermentation, distillation, feed drying and the boilers. The fermentation process is a source of emissions because carbon dioxide (CO_2), a gas, is also produced when yeast digests sugar and synthesizes ethanol. Some ethanol vapor is carried off with the CO_2, along with traces of other organic compounds that accompany the biological conversion of sugar into ethanol by yeast. The emissions of ethanol and other organic compounds are controlled by a scrubber. The scrubber uses a water spray to adsorb and remove the organic compounds from the CO_2 stream before it is vented to the atmosphere. The water from the scrubber is then used for making mash in the ethanol manufacturing process, which also recovers the organic compounds collected by the scrubber.

Distillation emits organic compounds, primarily ethanol. During distillation, the beer is heated to the temperature at which the ethanol boils, which is below the temperature at which the water boils. The ethanol vapor is then collected by cooling the stream so that ethanol condenses. After condensation, traces of ethanol and other organic compounds remain in the gas stream from distillation as CO_2 was dissolved in the beer and also driven off when the beer was heated. These emissions are minimized by process scrubbers that, like the fermentation scrubber, recover ethanol and other organic compounds. The exhaust stream from these scrubbers is controlled by natural gas fired oxidizers or afterburners, which control the remaining organic compounds by combustion.

The feed dryers emit various pollutants that are present or formed as the wet feed is dried and are transferred into the exhaust stream from the dryer with the water vapor. Residual levels of ethanol and other organic compounds are still present in the feed at residual levels and driven off with the water during drying. The heat also cooks the feed producing additional organic compounds and carbon monoxide (CO), as some material is partially oxidized. These emissions are also controlled by

natural gas fired afterburners. Particulate matter (PM) is also present as fine particles of dust are entrained in the air stream during drying. Most of the PM is removed from the exhaust by dynamic separation in cyclones, with the remaining PM then being controlled by combustion in the afterburner. Sulfur dioxide (SO_2) is emitted as a sulfur compound is added to the mash in the fermentation tanks, with emissions minimized by the limited usage of such compound. Finally, as the dryers are fired with natural gas, the dryers emit the pollutants associated with gas combustion, notably nitrogen oxide (NOx) and CO, which are controlled by use of low-NOx burners and good combustion practices, respectively, to minimize the formation of these pollutants.

The natural gas fired boilers, which supply steam for certain processes, also emit the pollutants associated with gas combustion. Like gas combustion in the dryers, emissions are minimized by use of low-NOx burners and good combustion practices.

As discussed, due to the various measures used to control emissions, the plant has been permitted as a minor source of emissions. Emissions of individual regulated pollutants (organic compounds, PM, NOx and CO) are each limited to less than 100 tons per year. Annual emissions of hazardous air pollutants (HAPS) are limited to less than 10 tons of any individual HAP and less than 25 tons of total HAPs. The actual emissions of the plant will be less than the permitted emissions, as the control measures for different operations routinely perform better in day-to-day practice than the minimum level required by applicable rules and the permit.

4. Emissions are being controlled by air pollution control equipment. What will happen if the control equipment on a unit fails?

If control equipment on a particular unit fails, emissions from that unit will be higher until the unit can be safely shut down or the control equipment is repaired. While such incidents at certain units will pose concern as they could potentially be accompanied by nuisance odors, other consequences for the public are not anticipated. In this regard, control equipment is required to be used on various units at the plant as such equipment is readily available and reasonably operated to minimize emissions of the proposed plant. This will result in levels of emission control and normal emissions that reflect the capability of control equipment. This is much better than would be needed to merely protect the public against adverse impacts from the proposed plant. This also means that there is a substantial margin between the level of controlled emissions and the emissions needed to protect air quality, such that any short-term outages of control equipment would not pose a threat to air quality. At the same time, the permit for the proposed plant includes a variety of provisions to assure that control equipment is properly maintained and operated to prevent outages. It also requires recordkeeping and reporting for outages of control equipment to enable the Illinois EPA to investigate whether appropriate corrective action is taken in a timely manner. These provisions should ensure that the control equipment at the plant effectively control its emissions.

5. There will be a negative impact on the surrounding area due to odors from the plant.

The plant would be designed and must be maintained and operated to control odors. Based on experience with other modern ethanol plants, if equipment at the plant is properly designed, operated and maintained, the proposed plant should not be a source of nuisance odors. While some odor may be detectable immediately downwind of the plant, the extent of such odor will normally be very limited and should not interfere with the day-to-day lives of the people living nearby.

As discussed, the emissions from the proposed plant will be well controlled using practices and equipment that are now standard at new fuel ethanol plants. This equipment, which includes a scrubber for the fermenters and oxidizers for the distillation units and feed dryers, will also control emissions of odors from the plant. These operations must also be equipped with stacks that are high enough above structures to prevent downwash and enable good dispersion of emissions.

If there are nuisance odors from the plant, the Illinois EPA would take action to ensure that the plant was taking appropriate steps to eliminate such odors. The construction permit does not excuse Wight Lightning from the obligation to undertake further actions to control emissions if needed to eliminate a public nuisance due to odors from the plant. If a problem would occur, the Illinois EPA would review the adequacy of the plant's proposed response to the problem, including any additional equipment that the plant would install, to confirm that the proposed response has been developed to adequately and appropriately respond to the problem.

6. At the Adkins Energy ethanol plant in Lena, citizens had to sue Adkins to get it to clean up its emissions.

If there are nuisance odors from the proposed plant, the Illinois EPA will take action to ensure that the plant is taking appropriate steps to eliminate such odors. After Adkins Energy began operation in the summer of 2002, the Illinois EPA took action based on public complaints about the odor and inspections of the plant by Illinois EPA personnel, which determined that the control equipment on the plant did not adequately control emissions. Adkins was required to install a thermal oxidizer at the plant to appropriately control emissions from the feed dryer and distillation operations. A group of local citizen also decided to take legal action against the plant after the Illinois EPA had begun its investigation and enforcement actions against the plant.

It is important to understand that the original feed dryer at the Adkins ethanol plant was not equipped with a thermal oxidizer. Instead, the dryer was designed to control organic emissions, including odors, by recirculating most of the exhaust from the dryer back through the burner and furnace at the front of the dryer. This design was not effective in controlling emissions, with both excess emissions and nuisance odors. The enforcement action that ensued led to a consent decree with

Adkins. Under the decree, Adkins was required to install an oxidizer to control the feed dryer. The plant the operated for approximately a year without a feed dryer, selling all of its feed production as wet cake, rather than dry feed, at great inconvenience and significant loss of revenue to the company, until the thermal oxidizer was installed.

7. What should I do if I am bothered by odors from the plant?

If you are bothered by odors from the plant, you should inform the Illinois EPA. It is important that the Illinois EPA be notified of problem odors so that it can investigate and determine the cause of the problem, review the actions being taken by the plant, and develop an appropriate response by the Illinois EPA. Complaints can be made by telephone, letter or e-mail. The telephone of the local Field Office of the Illinois EPA in Rockford is 815/987-7760. The Internet address for submitting a complaint is http://www.epa.state.il.us/pollution-complaint/.

8. What will be the impact of the emissions of the proposed plant on air quality in Rockford?

The air quality in Rockford should not be noticeably affected by the proposed plant. Based on the ambient monitoring and evaluation conducted by the Illinois EPA, the air quality in Rockford and surrounding communities is in attainment, i.e., meets the National Ambient Air Quality Standards established by USEPA. The proposed plant, which would be a minor source of emissions, would not alter this. During the course of a year, the emissions from the plant would be blown in all directions from the plant as the direction and strength of winds in Illinois vary on a daily, seasonal and annual basis. As a general matter, the quality of the ambient air throughout Illinois continues to improve due to measures that are being taken to improve air quality in the Greater Chicago and Metro-East St. Louis areas and urban areas generally. These measures, e.g., tighter standards for automobile and truck engines, improvements in vehicle fuels, and reductions in emissions of power plants, apply on a national or multi-state regional basis and act to lower background levels of pollutants and air quality in places like Winnebago County.

9. The permit should contain restrictions to be protective of elderly and young individuals and individuals who have respiratory conditions, such as asthma.

Age and existing health conditions are considered by USEPA when it establishes ambient air quality standards and other criteria defining unacceptable levels of exposure to various pollutants. Standards and criteria for airborne exposure to pollutants are established to protect sensitive populations, including the elderly, children and individuals with respiratory diseases. As a result, the air quality programs administered by the Illinois EPA and the permitting of the proposed plant are also protective of sensitive sectors of the population, as discussed by this comment.

10. Will the proposed plant's emissions affect the health of the public?

The emissions of the proposed plant should not pose a concern for the health of the public. At the present time, there are a number of existing ethanol plants in Illinois that are in routine operation and their emissions have not been identified as posing a significant concern for public health.

In order to specifically address the potential for significant adverse impacts from emissions of the proposed plant, Wight Lightning was required to conduct atmospheric dispersion modeling for the emissions of hazardous air pollutants (HAPs) from the proposed plant that are of potential concern for ethanol plants. The results of this dispersion modeling were then compared to screening criteria developed by the Illinois EPA Toxics Assessment Unit based largely on criteria and information health impacts previously generated and assembled by the USEPA. These screening criteria addressed acute and chronic health impacts due to short-term and long-term inhalation exposures to the HAPs of potential concern. The analysis showed that the impacts of the proposed plant would be below, i.e., better than, these criteria.

11. Have there been any long term studies of the effect of air pollution on public health?

There have been many long-terms studies of the affects of air pollution on public health. These studies are reviewed by USEPA when it develops ambient air quality standards and other criteria for acceptable long-term exposure to airborne pollutants.

12. Because the proposed plant would be located within three miles of a low income, minority community, the Illinois EPA should complete an environmental justice analysis for the proposed plant in that the permit might result in a significant, adverse, disproportionate impact on that community.

In order to address the potential for significant adverse impacts from emissions of the proposed plant, Wight Lightning was required to conduct atmospheric dispersion modeling for the emissions of hazardous air pollutants (HAPs) from the proposed plant that are of potential concern for ethanol plants. The results of this dispersion modeling were then compared to screening criteria for health impacts based on information assembled by the USEPA. These screening criteria addressed acute and chronic health impacts due to short-term and long-term inhalation exposures to the HAPs of potential concern. The analysis showed that the impacts of the proposed plant would be below, i.e., better than, these criteria.

At the present time, numerous new ethanol plants are proposed or being developed at sites throughout Illinois. As these plants are located in or near a variety of communities, any impact experienced by residents of the low-income, minority community of interest for the proposed plant would be similar to impacts associated with new ethanol plants. The permit includes a variety of provisions to address the

potential impacts of the plant. The dispersion modeling performed for the proposed plant demonstrates that the local community will not suffer significant adverse impacts from the emissions of HAPs that are of concern for ethanol plants.

13. The USEPA is relaxing some of the rules that apply to new ethanol plants. How will the changes affect the development of new ethanol plants?

The USEPA's changes to its rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21, will make the development and permitting of new ethanol plants much easier. However, it will not affect other rules that set important restrictions on the emissions of new ethanol plants as related to impacts on the public. In particular, the changes to the PSD rules do not alter federal rules for emissions of hazardous air pollutants (HAPs). Under those rules, new ethanol plants must continue to control annual emissions of HAPs to be less than 10 tons of any individual HAP and less than 25 tons of total HAPs, to maintain status as minor sources of HAPs. This means that emissions of organic compounds from new ethanol plants, which are of concern as related to the potential for odors, must still be very well controlled. This change also does not affect state emission standards for various categories of new emission units, notably grain handling operations. Under applicable state rules, emissions of different pollutants must also still be controlled as necessary to prevent any public nuisance from a plant. Accordingly, emissions of new ethanol plants must still be controlled effectively.

The USEPA's changes to its PSD rules will simplify the development of new ethanol plants most significantly as it alters the treatment of fugitive emissions, e.g., emissions of dust due to truck traffic on plant roadways,. Prior to the changes to the PSD rules, fugitive emissions had to be carefully estimated and tracked using factors and methods developed by USEPA, as fugitive emissions had to be considered along with other emissions when determining whether a proposed ethanol plant was a major source of PM emissions. With the changes, emissions of fugitive dust need no longer be quantified for the purpose of PSD applicability. They can instead be addressed as needed to confirm that appropriate measures are implemented to control road dust and ensure that a plant is not a nuisance for its neighbors because of blowing road dust. This is a more pragmatic and more easily implemented approach to fugitive emissions. While this approach also enables higher permitted emissions of PM from process equipment, as fugitive road dust do not count toward major source status under the PSD rules, this is likely of lesser consequence. This is because the developers of ethanol plants will not be able to use less effective equipments.

Incidentally, at this time, Wight Lightning has not submitted any revisions to the application for the proposed plant that would rely on these changes to the PSD rules. If it wants to take advantage of any of the changes to the PSD rules, it would have to apply for and obtain a revised construction permit for the plant.

14. Why will the proposed plant have a wastewater discharge?

The proposed plant should not have any discharge of <u>process</u> or contact wastewater from the manufacture of ethanol. The ethanol manufacturing process would be designed to reuse all process water streams at the plant. In general terms, process water recovered from the back end processes at the plant would be returned to the front end processes at the plant. Water would also be "shipped" from the plant with the animal feed, as the animal feed from the plant would be about 10 % water.

The proposed plant would have a direct discharge of <u>non-contact</u> wastewater, which is different than process wastewater. This non-contact water would not have been used in the ethanol manufacturing process and would not have come into direct contact with corn or ethanol. It would actually be well water that has been cycled through the cooling tower or been used to prepare feed water. The contaminants of concern for this water are the natural minerals contained in the water, which are concentrated in the cooling tower or feed water system as mineral-free water is evaporated in the tower or used as boiler feed water. Because of this build up of minerals, fresh water must be continually added and mineral laden water drawn off to maintain acceptable levels of minerals in the cooling water at the plant and in the wastewater stream. Wight Lightning would have to manage the accumulation of minerals so that the levels of minerals in the wastewater discharge comply with limits that would be set by the Illinois EPA in a separate permit under the NPDES program for the wastewater discharge from the proposed plant.

Sanitary waste from the plant would flow through sewer lines to the local municipal wastewater treatment plant, which would treat this waste prior to discharge.

15. Will the wastewater discharge from the proposed plant into Kent Creek affect Standfield Beach, the public swimming beach at Levings Park?

The wastewater discharge from the proposed plant should not adversely affect Standfield Beach. The type of contamination that is of concern for public swimming beaches is contamination with bacteria or other microorganisms. Given the nature of the wastewater discharge from the proposed plant, the plant would not contribute to this type of pollution in Kent Creek. Public swimming beaches are typically closed when storms cause surface runoff or sewer overflows that are contaminated with fecal waste from wildlife or livestock. Insufficient water flow or localized water currents at the swimming area can also contribute to closures of a swimming beach. Because of the potential for biological contamination at any public swimming beach, water must be periodically sampled and analyzed for bacterial contamination. Beaches are closed when the measured level of contamination is above an acceptable level. Even when a beach is open, people should try to avoid swallowing water while swimming as this is a simple way to reduce potential exposure to noxious microorganisms.

16. How will the proposed plant affect wildlife?

As the emissions from the plant would not pose a concern for air quality and human health and welfare, emissions also would not pose a concern for wildlife. Environmental programs for wastewater are specifically designed to maintain water quality in streams and rivers to protect fish and aquatic wildlife, as well as to facilitate recreational uses and preserve water quality for consumptive use.

17. There are a lot of problems with other ethanol plants around the country and there have been problems with emission and wastewater discharges at other new ethanol plants.

While there have been and likely will continue to be problems at new ethanol plants, these problems can be and have been addressed and corrected. The occurrence of these problems does not represent a fundamental flaw in the environmental control technology used at new ethanol plants, particularly given the stringent requirements that are being set for these plants. In addition, the Illinois EPA's experience with emissions from ethanol plants in Illinois is that emissions from ethanol production operations can be effectively controlled by appropriate design and proper operation of scrubbers and oxidizers or other combustion-type control devices. In this regard, the problems with emissions and nuisance odors that occurred with the Gopher State Ethanol plant in downtown St. Paul, Minnesota, which is now closed and dismantled, were atypical and should not be expected at the proposed plant.

18. There is a problem with storm water drainage in southwest Rockford. When Levings Lake overflows, it comes into my backyard. What provisions will be made at the proposed plant to address storm water runoff?

The proposed plant must be developed to collect storm water so as to not negatively impact local drainage. As at many new facilities, this will be accomplished by collecting rain runoff from plant buildings, structures and parking areas in a storm water retention basin. This enables a gradual release of storm water at a rate that would be no greater than the natural conditions before the plant was built. It also enables storm water to be treated prior to discharge if any water has inadvertently become contaminated.

19. I live in Parker Woods subdivision. Will the plant's water usage affect my well?

The proposed plant's wells should not affect private wells in nearby residential subdivisions. This is because the plant requires much more water than can be reliably supplied by the relatively shallow "surface" aquifers tapped by residential wells. The plant's wells will tap much deeper aquifer(s). These deep aquifers are separated from the surface aquifers and other intermediate aquifers by layers of essentially impervious rock, so that these aquifers effectively operate independently of each other.

20. Will the water usage of the proposed plant have an impact on the water supply for this area? The City of Rockford operates some public water supply wells that are within about 1.5 miles of the plant.

Wight Lightning indicated at the public hearing that the water supply for the proposed plant would be developed to not impact Rockford's water supply. To accomplish this, Wight Lightning would tap aquifers that are deeper, i.e., below, the aquifers tapped by the City of Rockford. Wight Lightning is currently targeting the Ironton-Galesville aquifers, which would require wells that would be hundreds of deep. The plant's wells would be cased and grouted down to the confining rock on the top of the selected aquifers, which would prevent effects on the other aquifers through which the wells would pass. As with any ethanol plant, it is important for Wight Lightning to develop the water supply for the proposed plant so that it does not affect the City of Rockford's water supply. This is because the plant needs a reliable and economical supply of water to continue in profitable operation.

21. What will be the water usage of the proposed plant?

At the public hearing, Wight Lightning stated that the proposed plant would need between 760,000 and 1,200,000 gallons of water per day. This estimate is based on the range of mineral content measured in raw water from nearby public water supply wells and preliminary design data for water usage by the plant. The actual water usage will depend on the final water balance for the plant and the final design of the water supply system. These will be finalized after a test well is driven at the plant site to confirm the actual quality of the water supply for the plant. The lower the mineral content of the raw water supply for the plant, the less water will have to be used by the plant. Likewise, less non-contact wastewater will be discharged from the plant.

22. I am concerned about lighting. How is light pollution regulated?

Lighting and light pollution are matters that are under the jurisdiction of local government authorities. Light pollution can be managed by appropriate design of fixtures, such as "shoebox" light fixtures that shine down, not outwards.

23. Will the proposed plant be serviced by long "unit trains?" Will the plant be a railroad freight terminal?

While the design of the plant for rail transport has not been finalized, Wight Lightning indicates that it is planning to be able to handle unit trains, which could consist of up to 110 cars. This is the trend in the fuel ethanol industry. Handling of unit trains is simpler and more efficient for a plant as a smaller number of trains actually service a plant. It is also simpler for a railroad as it does not have to switch cars going to and from a plant, and instead only picks up or delivers an entire train for travel directly to or from another facility. The ability to handle unit trains at the proposed plant would not enable a plant to serve as a rail yard or freight terminal, which would require additional facilities and would only be pursued by a railroad or other company engaged in that line of business.

24. How will the proposed plant affect property values?

The Illinois EPA does not have a role in this aspect of the proposed plant. Under Illinois law, these aspects of proposed plants are the responsibility of local government. Winnebago County has the responsibility of addressing the effect of industrial development on existing property values through zoning and land use management planning, through building permits and through other local approvals required for construction, and through their agreements with project developers.

25. The Illinois EPA is the governmental body that has the responsibility to ensure that residential areas are not adversely impacted by new industrial development.

The role of the Illinois EPA is specifically focused on assuring that the health and welfare of the public are not adversely affected by emissions, wastewater discharges and other pollution from industrial and other types of facilities. Other impacts of new facilities are the responsibility of local governmental authorities, as addressed through land use planning and zoning.

26. Is the Illinois EPA going to do all it can to protect our health and our welfare?

The permit for the proposed plant rigorously addresses the emissions from the proposed plant, in a manner that is consistent with applicable regulations and the general legal authority of the Illinois EPA. The permit contains a variety of requirements for the various units at the plant to ensure that emissions are properly controlled. Emission testing must be conducted on significant units at the plant after construction to verify that emissions at maximum throughput and normal operating conditions will be within the limits established by the permit. Units must also be promptly retested upon written request by the Illinois EPA. Continuous emission monitoring is required for the oxidizer/boiler systems for NOx. Additional emissions monitoring for CO is required unless emission testing shows that these systems normally meet the applicable limits with a respectable compliance margin. A variety of operational monitoring is required for the control equipment at the plant to verify proper operation. Wight Lightning will also have to keep operating records that will enable Wight Lightning and the Illinois EPA to verify whether the plant is operating in compliance and identify any period when a unit may be exceeding applicable emission limits or other requirements.

27. What other types of facilities can be constructed in an area that is approved for heavy industry?

This question should be directed to Winnebago County, Department of Regional Planning and Economic Development, rather than the Illinois EPA. This is because land use ordinances are adopted and administered by local governmental authorities, not the Illinois EPA. In this case, Winnebago County is responsible for land use and zoning decisions related to the proposed plant, as the plant would be located in unincorporated Winnebago County.

Likewise, questions about the procedures that Wight Lightning would need to follow to obtain approval to subdivide and sell some of its property should be directed to local authorities. This would include both Winnebago County and the City of Rockford, as the plant is located within the zone around Rockford within which the Rockford exercises extraterritorial; review of certain types of development activity.

28. Why did Wight Lightning select this location for the proposed plant?

Locations for ethanol plants are selected by the companies developing such plants based on a number of factors. General factors include the availability and likely cost of raw material (corn) from the surrounding region, availability of water, proximity to markets for ethanol and feed, presence of support services in the region, and competition from existing plants already operating in the region. Specific factors for the selection of the particular site for a proposed plant include appropriate zoning, adequate size, suitable topography and soil for efficient construction, local availability of natural gas, ease of access to the site by rail and major highway, and the nature of support by local economic development agencies. The Illinois EPA is not involved in this site selection process.

29. It is my understanding that the guidelines for location of ethanol plants normally restrict them to areas that are further from residential areas. I would like the proposed plant to be at least five miles away from residential areas.

The Illinois EPA is not aware of guidelines for the location of new ethanol plants that recommend that plants be particular distances, much less five miles, from residential areas. In Illinois, the appropriate separation between residential areas and other types of land uses and facilities is a matter that is addressed by local governmental officials, as part of local land use planning. Ethanol plants

30. At times, I am bothered by odors from the existing landscape waste composting facility located across the road from the site of the proposed plant.

If you are bothered by odors from this facility, you should promptly inform the Illinois EPA so that it can investigate and determine the particular cause of the odors, review the actions being taken by the facility, and develop an appropriate response by the Illinois EPA. Complaints can be made by local telephone call, 815/987-7760, or e-mail, http://www.epa.state.il.us/pollution-complaint/.

31. I am concerned about the proposed plant causing soil and groundwater contamination. Historically, such contamination has occurred in the vicinity of the site of the proposed plant due to certain industrial facilities that operate or used to operate in the area. The plant needs to be operated so that it does not cause similar contamination. Also, I am concerned that existing contamination may be contributing to contamination of the water from private wells.

The proposed plant would be designed, built and operated with features to minimize the potential for spills that could cause soil and eventually groundwater contamination. This would involve placing operations on impervious surfaces so that any spills can be readily collected. It would also involve designing pipelines for ethanol so that any leaks could be immediately detected and appropriate corrective action promptly taken, which is most readily accomplished by having pipelines above ground, rather than buried.

The extent of historic contamination from industrial facilities near the site of the proposed plant appears to have been localized so as to be of concern only for private wells and the water supplies for houses in the immediate vicinity of those facilities. Some of these houses have been demolished; a new, deeper well was successfully installed for at least one house. However, this does not means that there should not concerns about the quality of water and the presence of contamination of private wells in more distant neighborhoods, like the Parker Woods Subdivision. A well can be contaminated by a variety of sources, especially if the well was not installed or is not maintained to prevent infiltration of sewage or contaminated surface runoff.

32. The low income and elderly population of Southwest Rockford will not be easily evacuated in the case of an accident at the plant.

Incidents should not be anticipated at the proposed plant that would require any evacuation of local residents. While accidents and other incidents are a concern for Wight Lightning as related to the safety of workers and integrity of equipment, this does not necessarily indicate significant concerns for possible impacts on the general public. Moreover, Wight Lightning must work with local emergency response officials to ensure that the plant has been developed and contingency plans are in place to appropriately address the possibility of fire and other incidents at the plant. Fire preparedness planning is assisted by the safety codes enforced by insurance companies. These codes require that the plant be developed and maintained to minimize the risk of fire and to allow any fire that might occur to be safely contained, controlled and extinguished. For example, the plant must maintain a reserve supply of water for the sprinklers and hydrants at the plant. An adequate supply of fire fighting foam must also be kept at the plant, as is important for fighting certain types of fires. An emergency fire water pump is required so that the plant water system can operate during a power outage. These types of measures contribute to the good fire safety record of ethanol plants.

33. Will the ammonia used at the plant become a contaminant in wastewater or seep into the soil?

The ammonia used at the plant should not escape from the plant to become a contaminant in wastewater or soil. At ethanol plants, ammonia is a "nutrient" material that is added to the fermentation tanks to adjust pH and supply additional nitrogen for the yeast. This facilitates yeast growth and efficient fermentation. It

also means that the ammonia is consumed by the yeast in the fermentation process. As the proposed plant is designed and operated to not discharge process wastewater, any traces of ammonia remaining in a particular fermentation batch would be recycled with the recovered water to be used in another batch.

The facility for storage of ammonia would be designed to present escape of ammonia to the environment. The storage tank would be surrounded by a secondary containment area, with more capacity than the tank itself. This would contain any ammonia that might accidentally be spilled from the tank so that it could be recovered without loss to the environment.

FOR ADDITIONAL INFORMATION

Questions about the public comment period and permit decision should be directed to

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