PCB 06-184

# ILLINOIS ENVIRONMENTAL PROTECTION ACT 415 ILCS SECENCE OFFICE LOCAL SITING APPROVAL CRITERIA

JAN 0 8 2007

- The facility is necessary to accommodate the waste needs of the area it is TATE OF ILLINOIS (i) intended to serve;
- The facility is designed, located and proposed to be operated such that public (ii) health, safety and welfare will be protected;
- The facility is located so as to minimize incompatibility with the character of the (iii) surrounding area and to minimize the effect on the value of the surrounding property;
- The facility is located outside the boundary of the 100 year flood plain or the site (iv) is flood-proofed;
- The plan of operations for the facility is designed to minimize the danger to the (v) surrounding area from fire, spills or other operational accidents;
- The traffic patterns to or from the facility are designed to minimize the impact on (vi) existing traffic flows;
- (vii) If the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release;
- (viii) The facility is consistent with the County Solid Waste Management plan; and
- If the facility will be located within a regulated recharge area, any applicable (ix) requirements specified by the Board for such areas have been met.

The County Board may also consider the previous operating experience and past record of convictions or admissions of violations of the applicant and any subsidiary or parent corporation in the field of solid waste management when considering criteria (ii) and (v) under the Section. The County Board may also impose conditions on its siting approval.

### The proposed facility is located outside any regulated recharge area.

- Applicant presented the testimony of its expert, George Armstrong, that the proposed facility is not located within a regulated recharge area;
- Comments or concerns were raised concerning the proposed facility being located above an aquifer and that the aquifer is hydraulically connected to a regulated recharge area;
- However, no testimony or evidence was provided that contradicted the Applicant's witness regarding the location of the recharge area and the location of the proposed facility;
- County Staff independently confirmed the proposed facility is not located within the regulated recharge area for the Pleasant Valley Public Water District or any other regulated recharge area.

The proposed facility is located within a regulated recharge area and has not demonstrated compliance with applicable requirements specified for that recharge area.

none offered

The proposed facility is located outside any regulated recharge area, provided certain special conditions are met.

- Applicant presented the testimony of its expert, George Armstrong, that the proposed facility is not located within a regulated recharge area;
- Comments or concerns were raised concerning the proposed facility being located above an aquifer and that the aquifer is hydraulically connected to a regulated recharge area;
- However, no testimony or evidence was provided that contradicted the Applicant's witness regarding the location of the recharge area and the location of the proposed facility;
- County Staff independently confirmed the proposed facility is not located within the regulated recharge area for the Pleasant Valley Public Water District or any other regulated recharge area.

# **Special Condition - Criterion 9:**

[none offered]

The proposed expansion of the landfill is consistent with the County's integrated solid waste management plan and the 1996 and 2001 five-year plan updates.

- Applicant presented a report and testimony by its expert, Sheryl Smith, who
  concluded the proposed facility is consistent with the County's solid waste
  management plan and the updates thereto;
- There was no evidence or testimony that was contrary to the Applicant's expert testimony or report;
- County Staff concluded the proposed facility is consistent with the County's solid waste management plan;
- County Staff is responsible for implementing the County's solid waste management plan, and is in the best position to make a determination as to whether the facility is consistent with the plan or not.

The proposed expansion of the landfill is not consistent with the County's integrated solid waste management plan and the 1996 and 2001 five-year plan updates.

none offered

The proposed expansion of the landfill is consistent with the County's integrated solid waste management plan and the 1996 and 2001 five-year plan updates, provided certain special conditions are met.

- Applicant presented a report and testimony by its expert, Sheryl Smith, who
  concluded the proposed facility is consistent with the County's solid waste
  management plan and the updates thereto;
- There was no evidence or testimony that was contrary to the Applicant's expert testimony or report;
- County Staff concluded the proposed facility is consistent with the County's solid waste management plan;
- County Staff is responsible for implementing the County's solid waste management plan, and is in the best position to make a determination as to whether the facility is consistent with the plan or not.

# **Special Condition - Criterion 8:**

[none offered]

The Applicant has an emergency response plan that sufficiently includes notification, containment and evacuation procedures to be used in case of an accidental release at the facility.

- The application includes Spill Prevention Control and Countermeasure Plan, a Stormwater Pollution Prevent Plan, and a RCRA Contingency Plan;
- Applicant presented testimony of its operational expert concerning the foregoing plans;
- There was no evidence or testimony submitted into the record indicating there were no plans or that any plans were lacking;
- Some questions were raised regarding the degree of emergency preparedness and coordination with applicable emergency response agencies, but no facts or evidence was presented to support or validate such questions or concerns.

The Applicant has failed to provide adequate emergency response plan that includes notification, containment and evacuation procedures to be used in case of an accidental release at the facility.

none offered

The Applicant has an emergency response plan that sufficiently includes notification, containment and evacuation procedures to be used in case of an accidental release at the facility, provided a special condition is met.

- The application includes Spill Prevention Control and Countermeasure Plan, a Stormwater Pollution Prevent Plan, and a RCRA Contingency Plan;
- Applicant presented testimony of its operational expert concerning the foregoing plans;
- There was no evidence or testimony submitted into the record indicating there were no plans or that any plans were lacking;
- Some questions were raised regarding the degree of emergency preparedness and coordination with applicable emergency response agencies, but no facts or evidence was presented to support or validate such questions or concerns;
- While the plans generally meet this criterion, additional measures are necessary to fully coordinate emergency procedures and activities with applicable emergency responders in the County to adequately prepare for a potential emergency;

# **Special Condition - Criterion 7:**

1. PDC shall annually host a table-top meeting with appropriate emergency responders from Peoria County as approved by the Peoria County Administrator. This may include, but not be limited to, the Peoria County Emergency Services and Disaster Agency, Peoria County Highway Department, Peoria County Sheriff's Office, Limestone Township Fire Protection District, with invitations to attend forwarded to the City of Peoria Fire Department and the Illinois Emergency Management Agency for their input.

Traffic patterns to and from the facility are so designed as to minimize the impact on existing traffic flows.

- Applicant presented expert testimony and a report establishing that the facility will have minimal or no impact on existing traffic flows;
- No expert testimony, report or other evidence was submitted into the record that contradicts the conclusions of Applicant's expert;
- The expanded facility is proposed to be operated in substantially the same fashion as the existing facility, and the existing facility is not causing traffic flow problems according to local and state transportation agencies;
- Some concerns regarding the possibility of transportation related accidents were raised, however, those concerns were better addressed under other criteria.

Traffic patterns to and from the facility are not designed so as to minimize the impact on existing traffic flows.

none offered

Traffic patterns to and from the facility are so designed as to minimize the impact on existing traffic flows provided certain special conditions are met.

- Applicant presented expert testimony and a report establishing that the facility will have minimal or no impact on existing traffic flows;
- No expert testimony, report or other evidence was submitted into the record that contradicts the conclusions of Applicant's expert;
- The expanded facility is proposed to be operated in substantially the same fashion as the existing facility, and the existing facility is not causing traffic flow problems according to local and state transportation agencies;
- Some concerns regarding the possibility of transportation related accidents were raised; however, those concerns were better addressed under other criteria;
- Applicant's expert report recommends coordinating efforts with the Illinois
   Department of Transportation to install advance warning signs along State Route
   8 to warn motorists of possible truck turning movements;
- Applicant's report indicates it has designated two (2) main haul routes for trucks coming to and leaving the facility, but does not specify whether or how those routes are communicated to haulers who are not affiliated with Applicant;

# **Special Conditions - Criterion 6:**

- 1. PDC shall work with IDOT to install an advance warning sign along State Route 8 at this location to alert motorists of possible truck turning movements.
- 2. PDC shall inform all haulers to and from the facility of the designated truck routes in writing and PDC shall cooperate with local law enforcement agencies to enforce the truck routing requirements on the surrounding roads.

The plan of operations for the facility is designed to minimize the danger to the surrounding areas from fire, spills, and other operations accidents.

- Applicant presented expert reports and testimony concerning its plan of operations and its fire, spill, and operational accident plans;
- The plans set forth details of hours of operation, waste screening and acceptance
  procedures, waste handling procedures, daily waste placement and cover
  operations, leachate management, air quality controls, dust managements, mud
  tracking, noise control, access control, hazard prevent and emergency response
  plans;
- The testimony and documents submitted by Applicant demonstrate it is fully in compliance with its regulatory requirements for financial assurance for closure and post-closure care, and in fact has more funding in its trust than is presently required by IEPA;
- Applicant's plans comply with all laws, regulations and requirements;
- Questions and concerns were raised about coordination with fire departments and emergency service providers, and the proximity to schools;
- There was no evidence presented which demonstrated Applicant's plans for fires, spills or accidents were insufficient;
- There was no evidence presented which demonstrated there was a lack of coordination with local fire departments and emergency service provides;
- There was no evidence presented which demonstrated there was any risk to schools from potential fires, spills, or accidents at the facility;
- Due to the types of wastes proposed to be handled and disposed of at the facility, there is little risk of fires, spills or accidents impacting surrounding properties other than those inherent with more typical commercial or industrial facilities.

The plan of operations for the facility is not designed to minimize the danger to the surrounding area from fire, spills, or other operations accidents.

- The Applicant has failed to demonstrate it has plans for adequately addressing a fire, spill or other operational accident;
- Not all local emergency responders are familiar with the facility and the activities thereon;
- The facility is located close to residential houses, and a fire, spill or other operations accidents, could present a danger for residents;
- The applicant has failed to adequately prove or establish it will be financially responsible for the proposed expansion after the post-closure care period expires;
- Testimony of both applicant's witnesses and opponent's witness and documents submitted into the record by opponents suggest perpetual care of the facility is needed well after the regulatory post-closure care period has expired.

### Criteria #5

The plan of operations for the facility is designed to minimize the danger to the surrounding areas from fire, spills, and other operations accidents, if certain special conditions are met.

- Applicant presented expert reports and testimony concerning its plan of operations and its fire, spill, and operational accident plans;
- The plans set forth details of hours of operation, waste screening and acceptance
  procedures, waste handling procedures, daily waste placement and cover
  operations, leachate management, air quality controls, dust managements, mud
  tracking, noise control, access control, hazard prevent and emergency response
  plans;
- The testimony and documents submitted by Applicant demonstrate it is fully in compliance with its regulatory requirements for financial assurance for closure and post-closure care, and in fact has more funding in its trust than is presently required by IEPA;
- The testimony and documents submitted both in support of and against the application suggest that long term care and maintenance of the facility is necessary to fully and adequately protect the public health, safety and welfare;
- The County ordinance requires the applicant to present calculations of perpetual care costs for the proposed facility;
- The Applicant presented perpetual care cost estimates during the public hearing, and offered to implement and fund a perpetual care fund for the proposed expansion as well as inactive waste management areas of the larger facility;
- Applicant's plans do not adequately provide for the perpetual care of the facility after the termination of the post-closure care period;
- Applicant's plans do not adequately provide for the proper removal of leachate from the leachate manholes;
- Applicant's plans do not adequately provide for the monitoring of stormwater discharges to make sure stormwater has not come into contact with either the waste and/or leachate;
- Questions and concerns were raised about coordination with fire departments and emergency service providers, and the proximity to schools;
- There was no evidence presented which demonstrated Applicant's plans for fires, spills or accidents were insufficient;

- There was no evidence presented which demonstrated there was a lack of coordination with local fire departments and emergency service provides;
- There was no evidence presented which demonstrated there was any risk to schools from potential fires, spills, or accidents at the facility;
- Due to the types of wastes proposed to be handled and disposed of at the facility, there is little risk of fires, spills or accidents impacting surrounding properties other than those inherent with more typical commercial or industrial facilities;

### **Special Conditions - Criterion 5:**

- 1. Leachate will be automatically removed from all leachate manholes to maintain a minimal risk of leachate on the manhole liner. This is intended to minimize risk of leachate leakage through liner components.
- 2. The south stormwater detention basin shall be tested on a schedule identical to the existing permit requirements for groundwater monitoring wells and for the following indicator constituents: TDS (total dissolved solids), chloride, calcium, bromide, sulfate, and sodium. Although stormwater typically has less string water quality parameters, the records shall be kept and analyzed to verify that trends do not increase to levels of concern that would indicate leachate has been accidentally released to stormwater as long as the active landfill operations occur. PDC shall notify the County of any statistically significant upward trend in stormwater concentrations.
- 3. Effective upon PDC's receipt of a permit from Illinois EPA to operate the proposed expanded landfill, PDC shall pay additional sums into a perpetual care fund, on at least a quarterly basis equal to \$1.50 per ton of the Expanded Volume of Waste deposited in the PDC Landfill, but if the volume of waste disposed of at the landfill facility in any calendar year is less than 150,000 tons, PDC shall pay into the fund a minimum of \$225,000 for 15 years. Said payments shall be calculated based upon he same information and figures used to calculate the Host Benefit Fee pursuant to Section 9 of the Host Community Agreement, and shall be subject to the same documentation and verification requirement of the Host Benefit Fee. Said Perpetual Care Fund shall be used exclusively for the care and maintenance of the entire PDC site after the period of post-closure care for the expanded landfill has been terminated by IEPA.

The proposed facility is located outside the 100-year floodplain.

- Applicant presented expert testimony to this effect;
- County Staff confirmed the location of the facility outside of the 100-year flood plain;
- There was no evidence presented that the facility was located in the 100-year flood plain.

The proposed facility is located within the 100-year floodplain, and the site is not flood-proofed.

none offered

The proposed facility is located outside the 100-year floodplain provided that certain special conditions are met

- Applicant presented expert testimony to this effect;
- County Staff confirmed the location of the facility outside of the 100-year flood plain;
- There was no evidence presented that the facility was located in the 100-year flood plain

# **Special Condition - Criterion 4:**

[none offered]

The proposed facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property.

#### A. Compatibility

- Applicant presented the report and testimony of Christopher Lannert who which concluded the proposed facility is consistent with local land uses and meets rigorous standards to protect the environment;
- Surrounding land uses are a mix of open space, agriculture, industrial and residential;
- Numerous individuals commented during the public comment period that they were totally unaware of the facility until the siting process stated, suggesting the existing facility has not been incompatible for the existing land uses;
- Applicant's study and expert testimony was not contradicted in the public record;
- Numerous comments in the record raised concerns about the close proximity of
  the landfill to residential uses, and attempted to argue the uses were
  incompatible, but presented no evidence, data, studies or reports that were
  specific to the proposed facility;
- The testimony and report in the record state the site is separated from surrounding land uses by natural buffers, vegetative screening, and natural topography;
- The property on which the proposed site is to be located is zoned industrial and the proposed facility would be compatible with that zoning classification;
- The have been virtually no odor problems associated with the existing facility, and the proposed facility is to be designed and operated in substantially the same fashion, and therefore one would expect few if any odor problems in the future;
- A significant portion of the residential property which are in relative close proximity to the proposed facility have been built in recent years and certainly since the existing landfill has been operating;
- If the land uses were truly incompatible, the County would not expect to see that type of growth and development on surrounding properties, and the development suggests the residential uses are not incompatible with the existing facility;
- Since the proposed facility is designed and planned to be operated in

substantially the same fashion as the existing landfill has been operated for the past 12 to 15 years, the County does not anticipate the proposed facility would be incompatible with the surrounding land uses;

However, the County did note that during the Applicant's presentation certain
before and after images of what the proposed facility will look like from various
positions in the neighboring residential areas showed that in a few locations the
top of the proposed facility will be visible to neighboring residential properties;

### **B.** Property Values

- The Applicant presented the report and testimony of Mr. DeClark to establish the existing facility has had no impact on property values of surrounding residential properties;
- Opponents attempted to argue that the methodology used by Mr. DeClark was faulty in some fashion;
- The County finds the methodology used by the Applicant's expert to be common and acceptable for these types of studies;
- Mr. DeClark adequately explained why he did not study property values for nonresidential uses, because of a general lack of sufficient sales and re-sales data for such types of property;
- Opponents also contend Mr. DeClark's study was insufficient because it did not estimate or predict future values and the possibility that the publicity brought on by the siting application process will cause a decrease in property values;
- The County finds there are no facts or date in the record which would indicate property values will decrease in the future merely because of the proposed landfill, and that such concerns are, at this time, merely speculation;
- The County is mindful that an applicant is not required to prove zero impact or guarantee there will be no impact on property values, only that it has taken reasonable measures to minimize any impacts;
- The Applicant's studies show little or no impact from the existing landfill no property values, and since the proposed facility is designed and planned to be operated in substantially the same manner as the existing facility, the County finds the proposed facility will likely have the same minimal or non-existent effect on property values.

The proposed facility is not located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property.

### A. Compatibility

- Surrounding land uses are a mix of open space, agriculture, industrial and residential;
- The testimony and report in the record state the site is separated from surrounding land uses by natural buffers, vegetative screening, and natural topography, but with an expansion the natural buffers are not as effective;
- A significant portion of the residential property is in relative close proximity to the proposed facility;
- A 45 foot increase in vertical height of this landfill will have a noticeable and demonstrable effect on surrounding residential properties;
- The County did note that during the Applicant's presentation certain before and after images of what the proposed facility will look like from various positions in the neighboring residential areas showed that in a few locations the top of the proposed facility will be visible to neighboring residential properties.

### B. Property Values

- Numerous individuals commented during the public comment period that they
  were totally unaware of the facility until the siting process started, but are aware
  now;
- A 45 foot increase in vertical height of this landfill will have a noticeable visual impact on surrounding residential properties.

The proposed facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property, provided a special condition is met.

### A. Compatibility

- Applicant presented the report and testimony of Christopher Lannert who which
  concluded the proposed facility is consistent with local land uses and meets
  rigorous standards to protect the environment;
- Surrounding land uses are a mix of open space, agriculture, industrial and residential;
- Numerous individuals commented during the public comment period that they were totally unaware of the facility until the siting process stated, suggesting the existing facility has not been incompatible for the existing land uses;
- Applicant's study and expert testimony was not contradicted in the public record;
- Numerous comments in the record raised concerns about the close proximity of the landfill to residential uses, and attempted to argue the uses were incompatible, but presented no evidence, data, studies or reports that were specific to the proposed facility;
- The testimony and report in the record state the site is separated from surrounding land uses by natural buffers, vegetative screening, and natural topography;
- The property on which the proposed site is to be located is zoned industrial and the proposed facility would be compatible with that zoning classification;
- The have been virtually no odor problems associated with the existing facility, and the proposed facility is to be designed and operated in substantially the same fashion, and therefore one would expect few if any odor problems in the future;
- A significant portion of the residential property which are in relative close proximity to the proposed facility have been built in recent years and certainly since the existing landfill has been operating;
- If the land uses were truly incompatible, the County would not expect to see that type of growth and development on surrounding properties, and the development suggests the residential uses are not incompatible with the existing facility;

- Since the proposed facility is designed and planned to be operated in substantially the same fashion as the existing landfill has been operated for the past 12 to 15 years, the County does not anticipate the proposed facility would be incompatible with the surrounding land uses;
- However, the County did note that during the Applicant's presentation certain before and after images of what the proposed facility will look like from various positions in the neighboring residential areas showed that in a few locations the top of the proposed facility will be visible to neighboring residential properties;
- In order to minimize the views of the active operations of the proposed landfill and to minimize any potential noise coming from the proposed landfill operations, the County finds it is necessary and appropriate to install a screening berm on the eastern portions of the proposed facility so as to screen the active operations from the neighboring residential land uses;

### B. Property Values

- The Applicant presented the report and testimony of Mr. DeClark to establish the existing facility has had no impact on property values of surrounding residential properties;
- Opponents attempted to argue that the methodology used by Mr. DeClark was faulty in some fashion;
- The County finds the methodology used by the Applicant's expert to be common and acceptable for these types of studies;
- Mr. DeClark adequately explained why he did not study property values for nonresidential uses, because of a general lack of sufficient sales and re-sales data for such types of property;
- Opponents also contend Mr. DeClark's study was insufficient because it did not
  estimate or predict future values and the possibility that the publicity brought on
  by the siting application process will cause a decrease in property values;
- The County finds there are no facts or date in the record which would indicate property values will decrease in the future merely because of the proposed landfill, and that such concerns are, at this time, merely speculation;
- The County is mindful that an applicant is not required to prove zero impact or guarantee there will be no impact on property values, only that it has taken reasonable measures to minimize any impacts;
- The Applicant's studies show little or no impact from the existing landfill no property values, and since the proposed facility is designed and planned to be

operated in substantially the same manner as the existing facility, the County finds the proposed facility will likely have the same minimal or non-existent effect on property values;

However, the special condition set forth herein to address the visual and noise concerns will be a reasonable effort to minimize potential impacts on property values as well;

# **Special Condition - Criterion 3:**

### 1. Screening Berm.

In order to address visual and noise concerns for residences to the east of the proposed facility, the development of the eastern portion of the landfill shall be built in such a manner that visual barrier berms shall be placed and vegetated to minimize view of the landfill operations and to assist in minimizing possible noise from reaching residences to the east. The County Staff shall be given the right to approve the berm and barrier design prior to the design being submitted to IEPA for a permit.

The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.

- Applicant presented numerous experts that testified the design of the proposed expansion meets or exceeds all regulatory requirements and criteria;
- Applicant demonstrated the composite liner design for trenches C-2, C-3, C-4 and proposed trench C-5 is "state-of-the-art" technology, and that the design of trench C-1 is meets the presently regulatory requirements for a hazardous waste landfill;
- There was no expert testimony presented that contradicts the Applicant's expert witnesses regarding the design of the facility;
- Opponents presented Mr. Montague as a witness to testify regarding landfill liners and liner suitability;
- Mr. Montague primary stated that liners have a propensity to fail, and eventually the liners at the proposed facility would fail;
- Mr. Montague is not a licensed engineer, and his claimed expertise was based solely from reading articles;
- Mr. Montague's testimony was general in nature, and not specific to the site application, the design of the proposed expansion or the physical conditions or characteristics of the site, and as a result his testimony was not persuasive or particularly helpful concerning questions about the design of the facility or the suitability of the use of liners in the design of the facility;
- Dr. Lee's information, submitted as part of the public comment period, and not subject to cross-examination, was also general in nature, and did not provide site specific information regarding the design of the proposed facility;
- Dr. Lee's "Flawed Technologies" paper dealt with other types of landfills (RCRA Subtitle D landfills as opposed to this RCRA Subtitle C landfill), was very general in nature, and not particularly helpful or informative to the County in evaluating the design of the property facility;
- Because Dr. Lee's information was not presented at or before the public hearing
  and was not subject to cross-examination, the information provided has not been
  subject to tests of credibility, and as such, should not be given, and has not been
  given, the same weight as the sworn testimony of individuals who testified at the
  public hearing;

- Charles Norris, who testified for the opponents, did not provide any opinion regarding design and engineering of the proposed facility;
- Applicant's experts concluded that the liner systems designed into the proposed facility would remain in tact and functioning for in excess of five hundred years;
- Opponents questioned how such conclusions could be drawn, but presented no
  evidence, data or studies specific to the proposed facility to contradict that
  testimony;
- Opponents primary comments were that the liner systems would fail at some point in the future, and this commentary was largely supported by the testimony of Applicant's witnesses, the major difference being when the liner systems would begin to degrade;
- The County Board believes the weight of the evidence regarding the suitability of the liners, the period of time the liners will function, and the design of the liner systems is with the testimony of Applicant's experts;
- Applicant and opponents agree that protection of the groundwater is the primary concern at the proposed facility;
- However, there is considerable difference of opinion between the parties as to the magnitude and likelihood of a risk to the groundwater presented by the proposed facility;
- The Applicant presented expert reports testimony by Mr. Liss concerning the present groundwater conditions at the existing facility, and the expert reports and testimony by Dr. Barrows concerning predicted groundwater impacts in the future;
- One area of concern for the County Staff was the groundwater impact assessment conducted by PDC's experts Dr. Barrows and Ken Liss;
- The type of groundwater modeling done by Dr. Barrows is appropriate for this type of application and for determining future potential impacts to groundwater as required by IEPA for permit applications;
- IEPA requires this type of modeling to determine impacts up to 100 years after closure, but the Applicant did the modeling for 500 years after closure;
- At the public hearing, Dr. Barrows was asked about his modeling and his sensitivity analysis, and he stated in his testimony that the report on his sensitivity analysis was incorrect, and that the most sensitive parameter was flux through the liners as opposed to the hydraulic conductivity of the clayey till underlying the liners;

- After the public hearing, and before the close of the public comment period, Dr.
  Barrows submitted a supplemental report detailing his corrected findings
  regarding the sensitivity analysis, but County Staff was not able to independently
  verify his corrected conclusions;
- Opponents questioned the ability to reliably predict 500 years into the future, but no alternative modeling was performed, and there was no testimony or evidence that the type of modeling performed was incorrect or inappropriate;
- Opponent's witness Charles Norris questioned the conclusions of the modeling and questioned some of the assumptions and input parameters for the modeling, and attempted to identify fluctuations in groundwater levels as proof for his conclusions;
- During cross examination, Dr. Barrows testified that the fluctuations in groundwater levels in monitoring wells was the result of pressure changes caused during wet periods, and, not due to rapid transport of water through the unsaturated glacial till at the site;
- The County finds Dr. Barrow's explanation much more believable and consistent with the known site conditions, and the County concludes that the modeling, the assumptions and inputs were appropriate for the site specific conditions at the proposed facility;
- Mr. Liss testified for the Applicant that the groundwater monitoring data demonstrates the existing facility is not contributing contamination to the groundwater at the site;
- Mr. Norris disputed that conclusion by pointing to TOX sampling data;
- Based upon the testimony at the public hearing however, the County does not believe TOX is a reliable parameter, and therefore questioned Mr. Liss as to whether he had conducted any testing or analysis which would indicated whether increases in chlorides and sulfates in certain downgradient wells was coming from the landfill or some other source(s);
- Mr. Liss testified that the facility had done sampling and analysis, and he had studied the data and determined based upon bromide/chloride ratios that the contamination was not coming from the leachate of the existing facility, and was most likely coming from off-site sources;
- Mr. Norris attempted to dispute the off-site source theories in his supplemental submittals, but was unable to present any evidence or data to dispute Mr. Liss' testimony or supplemental report;

- Applicant's experts testified that the existing groundwater monitoring network at the facility is adequate to monitor the facility in accordance with applicable regulations;
- Dr. Lee, a commentator for the opponents, suggested that the downgradient wells were spaced too far apart, and as a result it was possible the wells would not immediately detect groundwater contamination if it were coming from the proposed facility;
- Dr. Lee was unable to provide any reference to regulations, design criteria, or other basis for his comments concerning the spacing of the wells;
- Applicant presented expert reports and testimony finding the existing and proposed operations of the facility are conducted in such a manner as to fully comply with all Illinois EPA regulations and are therefore protective of the public health, safety and welfare;
- There was no evidence presented by opponents that directly contradicts the Applicant's expert witnesses regarding the operations of proposed facility;
- A number of the opponents, their witness Charles Norris, and Dr. Lee who submitted comments into the public record, call into question the safety of the inactive portions of the site;
- Those inactive portions of the site are not part of the proposed expansion of the facility, are not covered by the application and these siting procedures, and therefore the County is not in a position to comment on those areas of the facility;
- Although the inactive portions of the site are not part of the proposed expansion, the Applicant has proposed a perpetual care fund which would provide funding for the long term monitoring and care of the entire site, including the inactive portions, and as a result the County finds that such a perpetual care fund would be protective of the public health, safety and welfare;
- Applicant presented numerous expert reports and testimony which concluded that the location of the proposed facility was adequately protective of the public health, safety and welfare;
- There was testimony at the public hearing to the effect that the location of the proposed facility is one of the most, if not the most, studied sites in Illinois;
- The application and testimony of the Applicant demonstrate the proposed expansion is to be located in an area with at least 40 feet of natural, relatively impermeable, clayey till underlying the site, with intervening, non-continuous sand lenses, some of which are saturated or partially saturated;

- It was generally agreed that the site sits over an aquifer that is not the Sankoty aquifer, but that is hydraulically connected to the Sankoty aquifer;
- Both the applicant and the opponents agreed that the primary issue of concern relating to the proposed facility is the protection of the groundwater at the site;
- The County agrees protection of groundwater is a paramount concern;
- The applicant's expert reports and testimony concluded that the location of the proposed landfill above the approximately 40 fee of clayey glacial till was protective because the clayey till would provide additional protection against migration of leachate from the site in the event the liners failed or reached the end of their useful life;
- Opponents presented Mr. Norris as an expert to testify about the geological setting, and his conclusions, based upon a review of the data contained in the application and his review of the groundwater monitoring data from the IEPA, was that the glacial till underlying the site provided no protection for the groundwater in the event of a release of leachate;
- Mr. Norris's opinion was based upon the concept that weathering and cracks in the clayey till, and continuous sand seams in the clayey till, resulted in liquids moving through the soil at relatively high rates, and the till would, as a result, provide no barrier to migration;
- Mr. Norris presents no independent data or analysis for his theories, and upon cross examination he admitted he has made similar conclusions in opposition to other landfills in the State of Illinois;
- The County has reviewed Mr. Norris' conclusions and respectfully disagrees with them, and finds that the testimony and reports of Applicant's experts to be more compelling regarding the characteristics and qualities of the underlying till to retard migration of leachate;
- At the public hearing, Mr. Norris agreed with the data and determinations of the Applicant's witnesses that the rate of groundwater flow in the lower sand aquifer below the site was approximately 10 feet per year;
- During the public comment period following the hearing, opponents presented information suggesting the flow rate in the lower sand aquifer may be much higher, and in the range of feet per day, instead of feet per year;
- The County has considered that new information provided by the opponents, and has concluded that such a change would have no impact on the groundwater modeling, impact study, and analysis performed and presented by the Applicant;

- The Applicant's expert, Dr. Barrows, testified that the most sensitive factor for his groundwater impact assessment was the migration of leachate through the liner, and not the groundwater flow rate;
- Furthermore, if contaminants were to be released from the proposed facility and migrate into the groundwater, a higher flow rate in the lower sand aquifer would tend to increase the natural attenuation of any contaminants in the groundwater, and as a result, the County concludes any variability in the flow rate of the groundwater in the lower sand aquifer would have no impact on the groundwater modeling conclusions;
- Opponents presented testimony of two medical doctors at the public hearing, as well as numerous public comments by medical doctors at the public hearing and in the public record against the proposed facility;
- The testimony and comments of the doctors was the hazardous wastes being disposed of at the existing landfill, and those proposed to be disposed of at the proposed expansion of the landfill, presented unwarranted health risks to the citizens of Peoria County;
- The doctors did not present any evidence that any person had been, was being, or will be exposed to any contaminants from either the existing landfill or the proposed landfill;
- The doctors contended that air pollution from the proposed facility may cause exposure, but the only information they could refer to was the Toxic Release Inventory reports prepared by the Applicant which showed air emissions from a waste treatment process that is not part of the application under review;
- The testimony and information provided indicates the types of wastes proposed to be accepted at the landfill are very low in organics, and most of the wastes are heavy metal wastes, which would not be expected to volatilize;
- The proposed facility is proposed to be operated so as to minimize and control dust and airborne particulate matter during active operations;
- The information in the record indicates the treatment plant, which is not part of this application, is in full compliance with its air permit, and is, in fact, emitting less than the allowable levels;
- The doctors also testified and stated they were concerned about potential exposure by drinking contaminated groundwater;
- As stated above, the groundwater impact assessment performed by Applicant's experts, indicates there will be no impact to the groundwater above drinking

water standard at the point of compliance in 500 years after closure;

- Based upon the groundwater modeling, the low levels of contaminants found in the waste proposed to be disposed of at the proposed facility, the geological setting beneath the proposed facility, the characteristics of the aquifer below the proposed facility, and the distance to the nearest public drinking water wells, the County does not believe, if there is a release of leachate from the site, there will ever be detectable levels of contaminants from that leachate reaching those drinking water wells;
- The County believes that in order for there to be a health risk posed by a contaminant, there must be an exposure, and there was no testimony, evidence, data, studies, or reports of any kind that stated the proposed facility caused any exposure, therefore the County is unable to find that the proposed presents a risk to human health.

The facility is not so designed, located and proposed to be operated that the public health, safety and welfare will be protected.

- There is evidence that the existing landfill may be already be leaking into the aquifer;
- If the existing landfill is already leaking, the facility and the proposed facility which relies upon the existing liners and leachate collection systems is not designed to be protective of the public health, safety and welfare;
- The liner systems presently in use at the facility and proposed to be used in the expansion, but the applicant's own experts' testimony, will fail at some time in the future:
- When those liners fail, leachate will begin migrating through the site, and will eventually reach the groundwater under the site;
- The groundwater aquifer located under the site is, but the applicant's own experts' testimony, hydraulically connected to the Sankoty aquifer which is the primary drinking water aquifer for the area;
- If the drinking water wells for the area are contaminated, the costs of replacing the water supply will be enormous;
- The risk of contaminating of the areas drinking water is not worth the short term economic benefits of allowing the expansion of the landfill;
- The old areas of the site are not constructed to modern regulatory standards and present unreasonable risks to the public;
- The location of a hazardous waste disposal site over the aquifer is against the stated policy of the Peoria County Board;
- The design of trench C-1 is inferior to present "state-of-the-art" technology in the waste field, and allowing the Applicant to remove the existing cover from that trench presents an unreasonable risk to the public and the aquifer under the site:
- The testimony of opponents expert, Charles Norris, was that fissures in the clayey till, weathering of the till, and continuous sand seams all contribute to the rapid transport of liquids through the glacial till underlying the site, and will, and have, resulted in leachate releases and other contaminants migrating into the groundwater from the glacial till;

- The testimony concerning the organic contaminant found in a shallow monitoring well located in the upper till in the northeast corner of the facility, and the subsequent discovery of the same contaminant in a monitoring well located in the lower sand aquifer in the same area suggests the rapid migration of contaminants at the site, in directly conflict with the testimony of applicant's experts, and in support of Mr. Norris' testimony;
- The increased levels of chlorides in the monitoring well downgradient of trench C-1 also suggest the same conclusions;
- The close proximity of residential neighborhoods to the east of the proposed facilities raises numerous questions concerning whether the location of the proposed facility is protective of the public health, safety and welfare;
- The facility, at its closest location, is a mere 300 feet from the nearest residential property;
- The close proximity of the residences raises serious concerns regarding the potential adverse health effects the proposed landfill may cause to these residents:
- The entire medical community has spoken out against the proposed expansion due to the potential health risks posed by place large volumes of hazardous waste so close to the residents of the County;
- The Applicant did not present any data, studies, or reports concerning the potential health affects on the citizens, or any risk assessments or epidemiological studies or data concerning the proposed facility;
- Due to the close proximity and the hazardous nature of the materials being disposed of and proposed to be disposed of at the facility, the proposed facility presents an unwarranted risk to the public.

The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected, provided certain special conditions are met.

- Applicant presented numerous experts that testified the design of the proposed expansion meets or exceeds all regulatory requirements and criteria;
- Applicant demonstrated the composite liner design for trenches C-2, C-3, C-4 and proposed trench C-5 is "state-of-the-art" technology, and that the design of trench C-1 is meets the presently regulatory requirements for a hazardous waste landfill;
- There was no expert testimony presented that contradicts the Applicant's expert witnesses regarding the design of the facility;
- Opponents presented Mr. Montague as a witness to testify regarding landfill liners and liner suitability;
- Mr. Montague primary stated that liners have a propensity to fail, and eventually the liners at the proposed facility would fail;
- Mr. Montague is not a licensed engineer, and his claimed expertise was based solely from reading articles;
- Mr. Montague's testimony was general in nature, and not specific to the site application, the design of the proposed expansion or the physical conditions or characteristics of the site, and as a result his testimony was not persuasive or particularly helpful concerning questions about the design of the facility or the suitability of the use of liners in the design of the facility;
- Dr. Lee's information, submitted as part of the public comment period, and not subject to cross-examination, was also general in nature, and did not provide site specific information regarding the design of the proposed facility;
- Dr. Lee's "Flawed Technologies" paper dealt with other types of landfills (RCRA Subtitle D landfills as opposed to this RCRA Subtitle C landfill), was very general in nature, and not particularly helpful or informative to the County in evaluating the design of the property facility;
- Because Dr. Lee's information was not presented at or before the public hearing
  and was not subject to cross-examination, the information provided has not been
  subject to tests of credibility, and as such, should not be given, and has not been
  given, the same weight as the sworn testimony of individuals who testified at the
  public hearing;

- Charles Norris, who testified for the opponents, did not provide any opinion regarding design and engineering of the proposed facility;
- Applicant's experts concluded that the liner systems designed into the proposed facility would remain in tact and functioning for in excess of five hundred years;
- Opponents questioned how such conclusions could be drawn, but presented no
  evidence, data or studies specific to the proposed facility to contradict that
  testimony;
- Opponents primary comments were that the liner systems would fail at some point in the future, and this commentary was largely supported by the testimony of Applicant's witnesses, the major difference being when the liner systems would begin to degrade;
- The County Board believes the weight of the evidence regarding the suitability of the liners, the period of time the liners will function, and the design of the liner systems is with the testimony of Applicant's experts;
- Applicant and opponents agree that protection of the groundwater is the primary concern at the proposed facility;
- However, there is considerable difference of opinion between the parties as to the magnitude and likelihood of a risk to the groundwater presented by the proposed facility;
- The Applicant presented expert reports testimony by Mr. Liss concerning the present groundwater conditions at the existing facility, and the expert reports and testimony by Dr. Barrows concerning predicted groundwater impacts in the future;
- One area of concern for the County Staff was the groundwater impact assessment conducted by PDC's experts Dr. Barrows and Ken Liss;
- The type of groundwater modeling done by Dr. Barrows is appropriate for this
  type of application and for determining future potential impacts to groundwater
  as required by IEPA for permit applications;
- IEPA requires this type of modeling to determine impacts up to 100 years after closure, but the Applicant did the modeling for 500 years after closure;
- At the public hearing, Dr. Barrows was asked about his modeling and his sensitivity analysis, and he stated in his testimony that the report on his sensitivity analysis was incorrect, and that the most sensitive parameter was flux through the liners as opposed to the hydraulic conductivity of the clayey till

underlying the liners;

- After the public hearing, and before the close of the public comment period, Dr.
  Barrows submitted a supplemental report detailing his corrected findings
  regarding the sensitivity analysis, but County Staff was not able to independently
  verify his corrected conclusions;
- Because County Staff was not able to independently verify his corrected conclusions, the County is unwilling to accept the results of the modeling as a method for ruling out the possibility that the C trenches are or have released contaminants at the site;
- The position of the County is a conservative and protective position, and should not be deemed to be a statement by the County that it believes there is or has been a release from the C trenches, but merely a statement of possibility;
- Opponents questioned the ability to reliably predict 500 years into the future, but no alternative modeling was performed, and there was no testimony or evidence that the type of modeling performed was incorrect or inappropriate;
- Opponent's witness Charles Norris questioned the conclusions of the modeling and questioned some of the assumptions and input parameters for the modeling, and attempted to identify fluctuations in groundwater levels as proof for his conclusions;
- During cross examination, Dr. Barrows testified that the fluctuations in groundwater levels in monitoring wells was the result of pressure changes caused during wet periods, and, not due to rapid transport of water through the unsaturated glacial till at the site;
- The County finds Dr. Barrows' explanation much more believable and consistent with the known site conditions, and the County concludes that the modeling, the assumptions and inputs were appropriate for the site specific conditions at the proposed facility;
- Mr. Liss testified for the Applicant that the groundwater monitoring data demonstrates the existing facility is not contributing contamination to the groundwater at the site;
- Mr. Norris disputed that conclusion by pointing to TOX sampling data;
- Based upon the testimony at the public hearing however, the County does not believe TOX is a reliable parameter, and therefore questioned Mr. Liss as to whether he had conducted any testing or analysis which would indicated whether increases in chlorides and sulfates in certain downgradient wells was coming from the landfill or some other source(s);

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- Mr. Liss testified that the facility had done sampling and analysis, and he had studied the data and determined based upon bromide/chloride ratios that the contamination was not coming from the leachate of the existing facility, and was most likely coming from off-site sources;
- Mr. Norris attempted to dispute the off-site source theories in his supplemental submittals, but was unable to present any evidence or data to dispute Mr. Liss' testimony or supplemental report;
- Based upon the testimony of Mr. Liss, and the supplemental report submitted by Mr. Liss, the County has determined that all of the increased chlorides and sulfates in the downgradient monitoring wells are not related to the leachate in the C trenches, with the exception of the leachate in trench C-1;
- The County believes the supplemental report is not definitive or conclusive enough regarding the trench C-1 leachate and the chloride found in one groundwater monitoring well directly downgradient of trench C-1;
- As a result, the County believes it is prudent and necessary to assume that the leachate from trench C-1 could be a source of the chloride in that monitoring well;
- Mr. Liss testified as to numerous other sources of chloride, but natural and man made, which could be causing the chloride increase, and the County acknowledges those are also possibilities;
- Since the placement of the cap over approximately 80% of the area of trench C-1, the leachate generation rates have decreased dramatically as would be expected;
- In addition, since the capping of trench C-1, the leachate quality has started to improve as well, indicating the cap is beginning to have its desired affect;
- Based upon the possibility that the chloride in the one downgradient monitoring well may be coming from trench C-1, and the fact that the design of the liner system and leachate collection system for trench C-1 is not the same state-of-the-art design of the other units, the County finds that it is not prudent to allow the removal of the cap over C-1 and expose the lesser designed liner and leachate collection system to increases in leachate generation, unless the Applicant installs an intermediate composite liner and leachate collection system over the top of the existing waste cell so as to prevent new leachate from migrating through the existing waste in trench C-1 and to its existing liner and leachate collection system;
- Applicant's experts testified that the existing groundwater monitoring network at

the facility is adequate to monitor the facility in accordance with applicable regulations;

- Dr. Lee, a commentator for the opponents, suggested that the downgradient wells were spaced too far apart, and as a result it was possible the wells would not immediately detect groundwater contamination if it were coming from the proposed facility;
- However, Dr. Lee was unable to provide any reference to regulations, design criteria, or other basis for his comments concerning the spacing of the wells;
- During the operation of the existing landfill, contaminants have been discovered in certain groundwater monitoring wells, and through investigation the Applicant has demonstrated to IEPA's satisfaction that the contaminants were not coming from the facility, but were instead coming from the well casings;
- In order to eliminate the potential for interference from such well casings masking potential releases from the proposed facility, the County believes it is appropriate and necessary for the Applicant to install three (3) additional groundwater monitoring wells at specific locations downgradient of the C trenches and that the wells be constructed of materials that do not contain galvanized or stainless steel.
- Applicant presented expert reports and testimony finding the existing and
  proposed operations of the facility are conducted in such a manner as to fully
  comply with all Illinois EPA regulations and are therefore protective of the
  public health, safety and welfare;
- There was no evidence presented that contradicts the Applicant's expert witnesses regarding the operations of proposed facility;
- However, the County believes that certain portions of the design and operation
  can be, and need to be, improved or enhanced so as to be protective of the
  public;
- The County finds the surface impoundment presently located at the facility and used for the collection and storage of leachate is less protective of the public than other areas of the facility because it is only double lined, and has no effective means of leak detection, and as a result, the County believes the surface impoundment should be removed and replaced with storage tanks;
- The County finds the trench C-1 manhole sumps are inadequate and should be retrofitted before any vertical expansion of the landfill is permitted;
- The County further finds it is more protective of the public if the low permeability material over capped portions of trench C-2 are retained during any

vertical expansion over that area;

- The County further finds the Applicant's proposal to totally exclude methane migration planning from its application is not protective, and it is necessary to protect the public that the applicant include potential methane migration to sump pits and other confined areas of the landfill in its health and safety program and contingency plans;
- A number of the opponents, their witness Charles Norris, and Dr. Lee who submitted comments into the public record, call into question the safety of the inactive portions of the site;
- Those inactive portions of the site are not part of the proposed expansion of the facility, are not covered by the application and these siting procedures, and therefore the County is not in a position to comment on those areas of the facility;
- Applicant presented numerous expert reports and testimony which concluded that the location of the proposed facility was adequately protective of the public health, safety and welfare;
- There was testimony at the public hearing to the effect that the location of the proposed facility is one of the most, if not the most, studied sites in Illinois;
- The application and testimony of the Applicant demonstrate the proposed expansion is to be located in an area with at least 40 feet of natural, relatively impermeable, clayey till underlying the site, with intervening, non-continuous sand lenses, some of which are saturated or partially saturated;
- It was generally agreed that the site sits over an aquifer that is not the Sankoty aquifer, but that is hydraulically connected to the Sankoty acquifer;
- Both the applicant and the opponents agreed that the primary issue of concern relating to the proposed facility is the protection of the groundwater at the site;
- The County agrees protection of groundwater is a paramount concern;
- The applicant's expert reports and testimony concluded that the location of the proposed landfill above the approximately 40 fee of clayey glacial till was protective because the clayey till would provide additional protection against migration of leachate from the site in the event the liners failed or reached the end of their useful life;
- Opponents presented Mr. Norris as an expert to testify about the geological setting, and his conclusions, based upon a review of the data contained in the application and his review of the groundwater monitoring data from the IEPA,

- was that the glacial till underlying the site provided no protection for the groundwater in the event of a release of leachate;
- Mr. Norris's opinion was based upon the concept that weathering and cracks in the clayey till, and continuous sand seams in the clayey till, resulted in liquids moving through the soil at relatively high rates, and the till would, as a result, provide no barrier to migration;
- Mr. Norris presents no independent data or analysis for his theories, and upon cross examination he admitted he has made similar conclusions in opposition to other landfills in the State of Illinois;
- The County has reviewed Mr. Norris' conclusions and respectfully disagrees with them, and finds that the testimony and reports of Applicant's experts to be more compelling regarding the characteristics and qualities of the underlying till to retard migration of leachate;
- At the public hearing, Mr. Norris agreed with the data and determinations of the Applicant's witnesses that the rate of groundwater flow in the lower sand aquifer below the site was approximately 10 feet per year;
- During the public comment period following the hearing, opponents presented information suggesting the flow rate in the lower sand aquifer may be much higher, and in the range of feet per day, instead of feet per year;
- The County has considered that new information provided by the opponents, and has concluded that such a change would have no impact on the groundwater modeling, impact study, and analysis performed and presented by the Applicant;
- The Applicant's expert, Dr. Barrows, testified that the most sensitive factor for his groundwater impact assessment was the migration of leachate through the liner, and not the groundwater flow rate;
- Furthermore, if contaminants were to be released from the proposed facility and
  migrate into the groundwater, a higher flow rate in the lower sand aquifer would
  tend to increase the natural attenuation of any contaminants in the groundwater,
  and as a result, the County concludes any variability in the flow rate of the
  groundwater in the lower sand aquifer would have no impact on the groundwater
  modeling conclusions;
- Opponents presented testimony of two medical doctors at the public hearing, as well as numerous public comments by medical doctors at the public hearing and in the public record against the proposed facility;
- The testimony and comments of the doctors was the hazardous wastes being disposed of at the existing landfill, and those proposed to be disposed of at the

- proposed expansion of the landfill, presented unwarranted health risks to the citizens of Peoria County;
- The doctors did not present any evidence that any person had been, was being, or will be exposed to any contaminants from either the existing landfill or the proposed landfill;
- The doctors contended that air pollution from the proposed facility may cause exposure, but the only information they could refer to was the Toxic Release Inventory reports prepared by the Applicant which showed air emissions from a waste treatment process that is not part of the application under review;
- The testimony and information provided indicates the types of wastes proposed to be accepted at the landfill are very low in organics, and most of the wastes are heavy metal wastes, which would not be expected to volatilize;
- The proposed facility is proposed to be operated so as to minimize and control dust and airborne particulate matter during active operations;
- The information in the record indicates the treatment plant, which is not part of this application, is in full compliance with its air permit, and is, in fact, emitting less than the allowable levels;
- The doctors also testified and stated they were concerned about potential exposure by drinking contaminated groundwater;
- As stated above, the groundwater impact assessment performed by Applicant's
  experts, indicates there will be no impact to the groundwater above drinking
  water standard at the point of compliance in 500 years after closure;
- Based upon the groundwater modeling, the low levels of contaminants found in the waste proposed to be disposed of at the proposed facility, the geological setting beneath the proposed facility, the characteristics of the aquifer below the proposed facility, and the distance to the nearest public drinking water wells, the County does not believe, if there is a release of leachate from the site, there will ever be detectable levels of contaminants from that leachate reaching those drinking water wells;
- The County believes that in order for there to be a health risk posed by a contaminant, there must be an exposure, and there was no testimony, evidence, data, studies, or reports of any kind that stated the proposed facility caused any exposure, therefore the County is unable to find that the proposed presents a risk to human health.

# **Special Conditions - Criterion 2:**

# 1. Surface Impoundment

PDC shall submit the permit modification within 90 days of siting approval to replace the surface impoundment with additional storage tanks for management of all leachate from PDC No. 1.

# 2. C-1 Sump Manhole Retrofit

The retrofit design referred by Mr. Meginnes shall be included in the permit application for the expansion permit and the C-1 sump manholes shall be retrofitted if the vertical expansion is approved.

# 3. No Expansion over Trench C-1

There shall be no vertical expansion over trench C-1 unless PDC shall install an intermediate composite liner and leachate collection system over C-1 at or near the existing cap elevation to effectively minimize leachate from reaching the bottom of Trench C-1.

## 4. Retain Low Permeability Material Over Capped Portions of Cell C-2

PDC shall leave in place the low permeability materials over portion of cell C-2 that is already capped.

# 5. Alternative Manhole Retrofit

PDC shall include in its permit application to the IEPA an alternative retrofit design for manhole sumps for all other trenches that have manhole penetrations.

## 6. Intermediate Liner

PDC shall either utilize the existing cap (HDPE geomembrane) as an intermediate liner if analyses show that it will function properly relating to its geotechnical and drainage characteristics, or install a separate intermittent liner at or near the existing cap elevation to effectively minimize leachate from reaching the bottom of Trench C-1.

# 7. Ambient Air Monitoring

PDC shall communicate all past measured methane concentrations and pressures to the IEPA during the permitting process in order for the IEPA to determine whether PDC shall design and install a system to manage methane vapors at the facility.

# 8. Methane Migration Planning

Although methane gas pressures are minimal in the landfill, Staff believes that PDC should include the potential of methane migration to sump pits and other confined areas of the landfill in its health and safety program and contingency plan.

# 9.

<u>Additional Groundwater Monitoring Wells</u>
Three (3) additional groundwater monitoring wells shall be installed downgradient from Trench C along the compliance boundary. The additional wells shall be located between existing monitoring wells R138 and R113; R113 and R137; and G136 and R137. The wells shall be screened across the top of the water table in the sand aquifer. The monitoring well screens and riser shall be constructed of materials that do not contain galvanized or stainless steel 10.

#### PROPOSED FINDINGS OF FACT

# Criterion 1

The facility is necessary to accommodate the waste needs of the area it is intended to serve.

- Applicant presented expert studies and testimony that demonstrates a short fall in disposal capacity for all three waste streams for all three service areas;
- Shortfall in disposal capacity for the three waste streams combined is demonstrated to be in excess of 4 million tons, and the proposed expansion is for 2.2 million tons;
- The study and testimony provided by Applicant took into account the specific waste codes accepted by Applicant, and considered projected recycling of nonhazardous process waste;
- Testimony by Applicant and public comment by customers of Applicant showed that if the expansion is not granted, local companies will experience significantly higher transportation costs for disposing of their wastes;
- Opponents criticized some of the methodologies utilized by Applicant's expert but presented no facts, data, or studies to substantiate those criticisms;
- No conflicting expert studies or testimony was presented.

#### PROPOSED FINDINGS OF FACT

## Criterion 1

The facility is not necessary to accommodate the waste needs of the area it is intended to serve.

- Applicant failed to use the most recent U.S. EPA data on hazardous waste generation;
- 2005 U.S. EPA data shows significant declines in hazardous waste generation rates in the hazardous waste service area;
- Applicant's expert failed to fully consider potential future recycling or waste reduction of hazardous waste in the service area;
- Applicant is quoted in newspaper article which was submitted into the public record as saying its tipping fees have decreased from \$100 to \$80 over the past few years;
- Decreasing price suggests decreasing demand for disposal capacity;
- These economic issues were not adequately covered by Applicant's expert report and testimony;
- While increased transportation costs of local business were discussed, there was
  no analysis of whether there would be an over-all increase in waste disposal
  costs for the local businesses if they were to have to haul their waste to other
  disposal facilities.

### PROPOSED FINDINGS OF FACT

### Criterion 1

The facility is necessary to accommodate the waste needs of the area it is intended to serve, provided certain special conditions are met.

- Applicant presented expert studies and testimony that demonstrates a short fall in disposal capacity for all three waste streams for all three service areas;
- Shortfall in disposal capacity for the three waste streams combined is demonstrated to be in excess of 4 million tons, and the proposed expansion is for 2.2 million tons;
- The study and testimony provided by Applicant took into account the specific waste codes accepted by Applicant, and considered projected recycling of nonhazardous process waste;
- Testimony by Applicant and public comment by customers of Applicant showed that if the expansion is not granted, local companies will experience significantly higher transportation costs for disposing of their wastes;
- Opponents criticized some of the methodologies utilized by Applicant's expert, but presented no facts, data or studies to support or substantiate those criticisms;
- No conflicting expert studies or testimony was presented;
- Applicant, at the public hearing, proposed to guarantee capacity to Peoria business during the proposed expansion to satisfy this criterion;
- Applicant, at the public hearing, proposed to that it would never seek an expansion or extension of the landfill again;

## **Special Conditions - Criterion 1:**

1. Capacity Guarantee for Peoria Generators. Until June 1, 2021, PDC agrees to provide disposal capacity at the PDC #1 landfill for waste generators located in Peoria County for all of the Hazardous Waste, MGP Remediation Waste and Nonhazardous Process Waste which is estimated to be generated by industry located within Peoria County's boundaries, provided, however, this provision only applies to the extent that PDC is permitted by Illinois EPA to receive said Hazardous Waste, MGP Remediation Waste and Nonhazardous Process Waste.

Prior to the first day of each calendar year during the operating life of the PDC Landfill, PDC shall provide Peoria County with an estimate of the amount ("Annual Estimate") of Hazardous Waste, MGP Remediation Waste and Nonhazardous Process Waste it expects to be received from industry located within Peoria County for that year, using methodologies which are consistent with the methodologies used to prepare the Needs Assessment portion of Peoria County's Solid Waste Management Plan. For the first year of operation of the PDC Landfill, the Annual Estimate shall be 30,000 tons of Hazardous Waste, MGP Remediation Waste and Nonhazardous Process Waste. PDC shall reserve sufficient capacity to dispose of the Annual Estimate of Hazardous Waste, MGP Remediation Waste and Nonhazardous Process Waste estimated by Peoria County. During the operating life of the PDC Landfill, the Annual Estimate shall not increase by more than 4% per year. The reservation of disposal capacity for industry located within Peoria County shall not be cumulative, and should the estimated disposal capacity not be utilized by Peoria County during any calendar year, that capacity may not be utilized in subsequent years. PDC shall submit each year to the Peoria County Board a copy of the Annual Capacity Report filed with the Illinois EPA by PDC which report shall be used to determine PDC's remaining landfill capacity.

2. Additional Expansions Prohibited. PDC shall not seek to expand vertically or horizontally the PDC Landfill again in the future.



JAN 08 2007

# BEFORE THE ILLINOIS POLLUTION CONTROLATION C

	Pollution Control Box
PEORIA DISPOSAL COMPANY	)
Petitioner,	) ) PCB 06-184 ) (Pollution Control Facility Siting
	) Appeal)
PEORIA COUNTY BOARD,	) )
Respondent.	)
AFFIDAVIT OF SERVICE	
of the attached Illinois Environmental Pro Approval Criteria, of Respondent Peoria C persons by enclosing such documents in so	County Board, was served upon the following eparate envelopes, addressed as follows, and al Service mail box at Morton, Illinois on the
Carol Webb Hearing Officer Illinois Pollution Control Board 1021 North Grand Avenue East P.O. Box 19274 Springfield, Illinois 62794-9274	George Mueller, P.C. Attorney at Law 628 Columbus Street, Suite 204 Ottawa, IL 61350
Brian J. Meginnes Elias, Meginnes, Riffle & Seghetti, P.C. 416 Main Street, Suite 1400 Peoria, IL 61602	
Dated <u>San. 5</u> , 2007.	
	Heather a Fleney Legal Assistant
Subscribed and sworn to before me aforesaid, this 5 day of knuery,	e, a Notary Public, in the County and State as 2007.

"OFFICIAL SEAL"
KIEM M. POWERS
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES APRIL 20, 2009

Notary Public