



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL**
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DOVER, DELAWARE 19901

Office of the
Secretary

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Secretary's Order No. 2008-A-0058

**Re: Application of Invista S.à.r.l. to Renew a Solid Waste Management Facility
Permit to Operate an Industrial Landfill at 25876 DuPont Road, Seaford,
Sussex County**

**Date of Issuance: December 3, 2008
Effective Date: December 3, 2008**

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control (“Department” or “DNREC”) under *7 Del C. §6003*, the following findings, reasons and conclusions are entered as an Order of the Secretary. This Order considers Invista S.à.r.l.’s (“Applicant”) permit application submitted to the Division of Air and Waste Management (“DAWM”), Solid and Hazardous Waste Management Branch (“SHWMB”). Applicant seeks to renew its solid waste management facility permit to operate an industrial landfill to serve Applicant’s industrial manufacturing facility located at 25876 DuPont Road, Seaford, Sussex County (“Facility”).

On November 29, 2007, the Department held a public hearing on the application, and the Department’s presiding Hearing Officer, Robert P. Haynes, prepared a Hearing Officer’s Report dated September 18, 2008 (“Report”), a copy of which is appended to this Order and incorporated herein. The Report considers the public comments, which opposed the permit renewal. The public comments sought to have the coal ash sent to a different location for final disposal or sought more environmental protection. There was a

concern with the on-site disposal of Applicant's solid waste, particularly since it would be coal ash from Applicant's coal-fired boilers used to generate electricity. The Report recommends approval of the application, and that SHWMB issue the permit, subject to the Department's reasonable conditions.

I agree with the Report that the permit should be issued, subject to the reasonable permit conditions recommended by the Department's technical experts in SHWMB. The Department previously approved the on-site disposal of coal ash at the Facility and this application is for a renewal, which does not entail the same issues as the location of a new landfill. The landfill is unlined, but this is allowed under the Department's regulations for existing landfills built before the Department's newer regulations went into effect. The opposition to the application raised the same issue as raised in comments opposed to renewal of NRG's existing coal ash landfill for the Indian River Generating Station. I again find that the Department's experts have considered the impacts from coal ash disposal in an unlined landfill, and rely on the experts' conclusions that such disposal can be done in a safe and environmentally sound manner when placed into a properly designed and operated industrial landfill. I find that the Applicant's landfill is properly designed and the permit's conditions will ensure it is properly operated. The Department's permit conditions will require extensive monitoring of the groundwater, surface water and leachate, which will provide warning of any problems of pollution from the landfill. This monitoring is an added precaution and will ensure that the Department is aware of any releases in excess of the permit's limits in order to take appropriate action. Finally, in light of the Facility's conversion to gas-fired boilers, the landfill will not be used for coal ash disposal after the conversion occurs.

In sum, as more fully described in the reasons and findings above and in the Report, I adopt and direct the following as a final order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing, and held the public hearing in a manner required by the law and its regulations;
3. The Department considered all timely and relevant public comments in making its determination;
4. The record supports the issuance of a permit based upon the application, and such minor modifications and reasonable conditions that the Department official delegated to prepare the permit determines are necessary to protect the environment and public health;
5. The duly authorized Department official shall timely prepare and issue a permit consistent with this Order; and
6. The Department shall provide notice of this Order to the persons affected by this Order, as determined by the Department, including those who participated in the hearing process, and shall publish notice of its decision in a manner provided by the Department's regulations.

s/John A. Hughes
John A. Hughes
Secretary

HEARING OFFICER'S REPORT

TO: The Honorable John A. Hughes
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Application of Invista S.à.r.l. to Renew a Solid Waste Management Facility
Permit to Operate an Industrial Landfill at 25876 DuPont Road, Seaford, Sussex
County

DATE: September 18, 2008

I. BACKGROUND AND PROCEDURAL HISTORY

This Report considers the administrative record, including the public comments in the public hearing record, and makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control (“DNREC” or “Department”) concerning Invista S.à.r.l.’s¹ (“Applicant”) permit application submitted to the Department’s Division of Air and Waste Management (“DAWM”), Solid and Hazardous Waste Management Branch (“SHWMB”). The application seeks to renew a solid waste management facility permit for an existing industrial landfill at the Applicant’s manufacturing plant (“Facility”) located at 25876 DuPont Road, near Seaford, Sussex County. The Applicant submitted the application on July 27, 2007, and SHWMB determined the application was complete upon receipt of all information required by the Department’s *Regulations Governing Solid Waste, 7 DE Admin. Code §§1300 et seq.* (“RGSW” or “Regulations”).

The Facility is located on approximately 650 acres and the industrial landfill uses sixty acres on the southwestern portion of the Facility’s land. In 1980, the Department approved the landfill based upon twelve cells with each cell approximately one acre in size. All are in active use. The landfill receives solid industrial waste from the Facility’s powerhouse, which primarily

¹ Applicant is a Luxembourg limited liability corporation that acquired the Facility from E.I. DuPont de Nemours and Company in an asset purchase on April 30, 2004, but Applicant leases the land from DuPont.

burns coal to generate electricity and produce steam used by the Facility. The powerhouse produces 340-480 tons of coal ash a week. The bottom ash is sluiced to one of two settling ponds, where water evaporates after a three to six month settling process. The coal ash is removed and placed in the landfill for final disposal in one of the landfill's twelve one acre cells. The landfill has a total capacity of 690,000 cubic yards, and Applicant estimates that the landfill holds approximately 128,000 cubic yards of coal ash. The Applicant expects the landfill to meet the Facility's current ash disposal needs until approximately 2027.

The landfill has ten monitoring wells to monitor water quality and the Facility has two production wells that are used for sampling. The Applicant also samples the surface water at locations upstream and downstream from the Facility at locations on the Nanticoke River, which flows along the Facility's southern border. The industrial landfill is located to the south of a site that is currently the subject of environmental remediation.

The Department published public notice of the permit application, and received a timely meritorious request for a public hearing. The Department held a duly noticed public hearing on November 29, 2008 at the Seaford Town Hall, Seaford, Sussex County. Several persons attended the public hearing and provided written and oral comments. At the request of members of the public, the public comment period was kept open for written comments. After the close of the public comment period, I requested additional technical assistance from SHWMB, which was provided in a memorandum attached hereto as Appendix A.

This Report considers the permit application, relevant information in the Department's files, and the public comments, and applies the applicable laws and regulations in order to make a recommendation to the Secretary on whether to issue a permit or any permit conditions.

II. SUMMARY OF THE PUBLIC HEARING RECORD

The public hearing record contains a verbatim transcript of the public hearing and the documents introduced as exhibits at the public hearing. The hearing record² contains the application and related correspondence, the public notices, and the written public comments the Department received prior to the hearing, and those received after the public hearing during the extended public comment period.

Most of the public comments opposed the permit renewal based upon the perceived environmental and public health risk from any on-site disposal of coal ash at the Facility, particularly since it is next to the Nanticoke River. The public comments also expressed concern with the corrective action site adjacent to the landfill. The public comments questioned the presence of elevated levels of certain contaminants in samples taken in the area. The public comments advocated that the ash waste be transported away from the site to an undisclosed location. The comments also requested that the coal ash be classified as a hazardous waste because it contains certain levels of hazardous materials, such as arsenic and mercury. The Seaford Chamber of Commerce supported the application.

III. DISCUSSION AND REASONS

This discussion will address certain issues raised by the public comments and the permit application, although not all issues raised may be discussed. Nevertheless, I have considered all the public comments even if not specifically mentioned in this Report.

The fundamental issue raised by most of the public comments was whether an industrial landfill should be used for on-site disposal of coal ash, particularly because the landfill is located near the Nanticoke River. In general, the Department's Regulations allow industrial landfills to

² The Department does not have an obligation to develop the public hearing record and remains neutral on the merits of a pending permit application until after the public hearing, but the Department, nevertheless, develops a basic public hearing record for the public's benefit.

be used to for the final disposal of solid waste from coal burned in power generation. Based upon the public comments, the Department's experts re-considered the policy set forth in the Regulations and concluded that continued disposal of coal ash at Applicant's landfill does not pose an unacceptable risk to the environment or public health. I agree and recommend that the permit be issued to allow continued use of the on-site industrial landfill.

The concerns with groundwater contamination and contaminants entering the Nanticoke River were carefully considered, but this review concluded that there is no scientific support that the final disposal of coal ash, in a properly designed and operated sanitary landfill, poses an unacceptable risk to the environment or public health. The Department's Regulations provide for the proper design and operation of an industrial sanitary landfill, and the Department's permit will include conditions to ensure safe operation. The group 'Friends of the Nanticoke River' submitted comments that recommended that the Department require an environmental impact assessment of continued use of the landfill and to mandate the use of at least the same technology to prevent leachate dispersal as would be required for a new landfill. This cannot be done and comply with the Department's regulations, which establish that older landfills do not need to meet the standards required for new landfills. The Department is required to follow its own regulations. Indeed, the Department's experts disagree with the public comments that coal ash should be considered a hazardous waste, but instead consider coal waste to be relatively harmless to the environment and public health. The Department encourages the beneficial reuse of coal ash as part of its effort to promote recycling. Thus, the disposal of coal ash does not raise the level of environmental and public health risk that may be present with other types of solid waste.

The public comments essentially seek to have the Department establish a policy that coal ash should be treated differently from other solid waste disposed at an industrial landfill. These

comments want a Department policy that would prohibit any disposal of coal ash in an industrial landfill. Based upon this record, I find that there is no support to overturn the Department's existing policy, or even to recommend that a rulemaking be opened to consider amending the Regulations to implement such a policy. Should such a policy change be done, then I recommend it be done in the context of a proposed regulation in order to more fully develop an administrative record than exists in the present record. Based upon the administrative record I have reviewed, I find that the disposal of coal ash waste in an industrial landfill that otherwise meets all of the Department's regulatory requirements is consistent with the Department's duties to protect the environment and public health.

I agree with the public comments that coal ash contains constituents of concern, including arsenic that is naturally present in coal. The Department is aware that the levels of concentration of these elements in the coal ash need to be monitored to ensure that they do not exceed the limits that would trigger different type of disposal, such as a hazardous waste. This public and Department concern with excessive levels of contaminants will be addressed by the extensive monitoring and reporting requirements that SHWMB would impose if a permit is issued. I agree that these safeguards are the appropriate way to regulate coal ash until the Department decides to open a proposed regulation proceeding to consider treating coal ash differently.

The permit application sets forth in considerable detail the numerous environmental controls that are required. I find that the application sets forth the operation of an industrial landfill that complies with the Department's Regulations. Consequently, I recommend that the coal ash disposal at the Facility be allowed to continue. This approval, however, is contingent on the continued monitoring and testing and test results that show that the level of contaminants does not exceed the limits the Department has established. The record supports renewing the operation of the existing landfill, which will not change the environment unlike the application

for a proposed expansion of an industrial landfill that the Department recently approved at the Indian River Generating Station. Applicant seeks to continue the operation of an existing landfill, which has a good history of compliance with its prior permits.

I find that the public's suggestion of an alternative to on-site disposal is not appropriate when the existing landfill is safe and has sufficient capacity until at least 2027, assuming the Facility's powerhouse continues to burn coal. The Facility recently received from the Department an air pollution control permit in order to construct equipment changes needed to burn natural gas. If this fuel conversion would occur, then the Applicant would not produce coal ash requiring disposal in the landfill. Until the Applicant switches fuels, the Department considers it appropriate to issue a permit for the current landfill in order that it may operate under a new permit, including permit conditions that will reflect regulatory changes since the last permit was issued.

Based upon the recommendation of the Department's experts, I find that the landfill should be allowed to continue to operate. The operation will be subject to the permit's reasonable conditions and the Department's Regulations. These will protect the environment and include the requirements for ongoing water quality monitoring and inspections, which together will ensure that the coal ash is disposed properly, consistent with protecting the environment and public health. The Department's ongoing regulation will include the exercise of the Department's enforcement powers if needed to control any violations of the permit. Together, these measures will ensure that the landfill will be operated in a manner that will protect the environment and public health from any undue risk of harm.

In conclusion, I find that the coal ash industrial landfill permit should be issued to renew the landfill for another term, although events may cause the Facility to switch to natural gas in the near future that would result in no further coal ash waste being produced. Nevertheless,

until that conversion completed, there is the need to disposal of coal ash from the Facility. The Department's experts reviewed the scientific evidence and conclude that coal ash is not an undue threat to the environment or public health and consider that the continued operation of the landfill will not pose an undue risk of harm to the environment or public health. I agree that the existing landfill does not pose any unacceptable risk and that the landfill should be allowed to continue to operate under a new permit, although the Facility's conversion to gas-fired boilers will soon essentially eliminate the need for coal ash disposal at the Facility.

IV. RECOMMENDED FINDINGS AND CONCLUSIONS

Based on the record developed, I find and conclude that the record supports approval of issuing a permit to construct and operate the Facility's industrial landfill's twelve cells as proposed in the application, subject to the reasonable general and specific permit conditions the Department's experts have recommended. I recommend the Secretary adopt the following findings and conclusions:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
3. The Department held a public hearing in a manner required by the law and regulations;
4. The Department considered all timely and relevant public comments in making its determination;
5. The Department shall issue Applicants a permit subject to the reasonable general and specific permit conditions recommended by SHWMB; and

6. The Department shall serve either by mail or email a copy of this Order on each person who participated in the public hearing.

s/Robert P. Haynes
Robert P. Haynes, Esquire
Senior Hearing Officer

MEMORANDUM

TO: Robert Haynes, Hearing Officer

THRU: Nancy Marker, Environmental Program Manager II, SHWMB
Bryan Ashby, Environmental Program Manager I, SHWMB

FROM: Avery Dalton, Environmental Scientist, SHWMB

DATE: March 25, 2008

SUBJECT: Invista S.a.r.l. Permit Application

REFERENCE: Hearing Officer's Memorandum Dated 2/12/08

This is our response to your Memorandum dated February 12, 2008.

Landfills pose potential environmental and public health risks, but with proper management these risks can be reduced or eliminated. Risks from industrial waste (specifically ash) landfills include but are not limited to possible ground/surface water impacts, leachate, dust, and noise. Other risks such as; odors, landfill gas, and vectors are not a problem due to the nature of the ash waste. Landfill operators utilize several measures to mitigate environmental problems. These measures usually involve operational or engineered controls to minimize the risks, and these practices, devices, and designs are outlined in the permit application and implemented through the issuance of a permit pursuant to the Delaware Regulations Governing Solid Waste.

Invista's permit application describes methods of risk control. These risk controls have included maintenance of the landfill cover, dust control, stormwater control, as well as ash chemistry, groundwater, and surface water monitoring.

A landfill operations permit issued to Invista pursuant to the Delaware Regulations Governing Solid Waste will provide the Department the means to implement necessary changes to environmental monitoring at the site and to specify reporting procedures, including emergency reporting procedures and assessment of corrective measures in the event of contaminant release. Such a permit will allow the Department to undertake enforcement action in the event of violations. The Department will be able to enhance the permit should risk conditions change. Additionally, the permit will allow the Department to ensure the protection of public health and the environment.

Should the Secretary decide to approve continued operation of the industrial waste (ash) landfill operated by Invista S.a.r.l. we recommend that the Order require that the landfill permit implement the construction, operations, monitoring, and eventual closure requirements of the Delaware Regulations Governing Solid Waste and include specific permit conditions that will require the permittee to:

1. Conduct site operations and inspections in accordance with the operations plan contained within the permit application.
2. Construct the landfill and all supporting systems in accordance with the design specifications provided engineering report, specifications, and the engineering drawings.
3. Monitor surface water, ground water and ash waste.
4. Provide an annual environmental monitoring report to the Department..
5. Provide an annual operations report summarizing all activity at the landfill over the previous year.
6. Report anomalous events to the Department which involve; site operations, environmental monitoring, and other impacts to landfill in accordance with emergency reporting criteria established by the Department.
7. Maintain and provide to the Department on an annual basis; financial assurance for closure and post-closure care.
8. Upon conclusion of landfilling operations, close the landfill using the closure plan provided in the permit application and updated as required by the Department.

NCM: AMD: dtd
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cc: Susan Baker, Paralegal, SHWMB
Frank Gavas, Hydrologist, SHWMB