



STATE OF DELAWARE

**DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL**

**89 KINGS HIGHWAY
DOVER, DELAWARE 19901**

Secretary's Order No. 2005-A-0039

Office of the
Secretary

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**Re: Approval of Final Plan of Remedial Action for the Boulevard Property
(DNREC Project No. 1331) at 100 South Justison Street, City of Wilmington,
Pursuant to the Hazardous Substance Cleanup Act, 7 Del. C. §§9101 et seq.**

Date of Issuance: September 19, 2005

Effective Date: September 19, 2005

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") under 7 Del C. §9107(e), the following findings, reasons and conclusions are entered as an Order of the Secretary. This Order considers the Department's proposed plan of remedial action for the Boulevard Property at 100 South Justison Street in the City of Wilmington, which the Department has investigated and proposed for redevelopment pursuant to the Department's Brownfields and Voluntary Cleanup Programs administered under the Hazardous Substance Cleanup Act ("HSCA").

The Department's proposed plan of remedial action was the subject of a public hearing at the request of one person. Consequently, the Department held a public hearing and the Hearing Officer developed a recommended remedial decision record, which includes the public comments, as considered and summarized in the September 15, 2005 Hearing Officer's Report ("Report") appended hereto. The Hearing Officer recommends expedited consideration of the proposed plan in light of the business and environmental

reasons as described by the Department. I concur that valid reasons support the Department's prompt consideration of the proposed plan and the approval of a final plan. The Report also recommends approval of the proposed plan as the final plan without modification. I agree with the Report and adopt it as part of this Order along with its reasons, and this Order finds and concludes that the proposed plan of remedial action for the Boulevard Property is adequately supported, is not arbitrary or capricious, and should be adopted as the final plan of remedial action that is consistent with HSCA and the Department's regulations.

The record clearly shows the amount of study and investigation the Department required of the Boulevard Property. The Department even considered the information available from the surrounding properties. The record shows that the proposed plan is based upon sound scientific evidence, is consistent with state and federal law, and provides for the safe and environmentally sound redevelopment of a Brownfields property in a manner that is well in excess of the level the law requires. The fact that the Boulevard Property's proposed usage will be a certified 'Green Building,' as recognized by nationally recognized standards, provides further support for final approval of the plan that will allow for the Boulevard Property's remediation to occur as quickly as possible. The final plan will implement a safe remediation that is designed to prevent human exposure to the hazardous substances discovered in low levels slightly in excess of several of the Department's standards. The chances of human exposure even without remediation are remote, but any remote chance is completely eliminated by the Department's approved remediation plan. The Department's proposed plan, as developed by the Division of Air and Waste Management, details analysis and the steps that will be

required as part of the redevelopment. The remediation also will continue in the future through the operations and maintenance plan that the final plan requires.

The Report discusses the public comments and I agree with the Report that they reflect valid environmental concerns; but the proposed plan does satisfy these concerns consistent with the law and existing standards, which were established to protect the public from harmful exposure to contaminants found on the Boulevard Property.

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 pending action;
2. The Department provided adequate public notice of the subject matter of the pending action and the public hearing;
3. The Secretary delegated to a hearing officer the authority to preside over a public hearing held at the request of one person;
4. The Hearing Officer presided over the public hearing and developed a recommended remedial decision record and report for the Secretary's consideration;
5. The Department considered all timely and relevant public comments in making its determination in this Order;
6. The Department's technical experts supervised a thorough site investigation under the Brownfields program, considered the results of the site investigation, and prepared a proposed plan of remedial action consistent with the law and the Department's regulations and guidelines;

7. The Department proposed plan of remedial action was based on a record that shows a reasoned and deliberate process that supports the adoption of the proposed plan as a final plan as consistent with the Brownfields law and Department regulations;

8 The Department should approve the proposed plan as the final plan as quickly as possible to allow the site remediation to proceed without any undue delay and enable the site to be redeveloped consistent with the Brownfields law, Department regulations, and sound and safe economic redevelopment;

9. The Department's authorized official should implement the issuance of the final plan of remedial action as approved by this Order, and copies of this Order and final approved plan shall be provided to the persons who attended the public hearing and any other persons who expressed an interest in the Department's decision on the proposed plan; and

10. The Department shall provide written notice and other public notice as required by law of this Order to the persons affected by the Order, as determined by those who participated in the Department's review at the public hearing or participation through the submission of written comments.

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
Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Proposed Plan of Remedial Action for the Boulevard Property (DNREC Project No 1331) at 100 South Justison Street, City of Wilmington, Pursuant to the Hazardous Substance Cleanup Act, *7 Del. C. §§9101 et seq.*

DATE: September 15, 2005

I. BACKGROUND

This Hearing Officer, delegated authority by the Secretary of the Department of Natural Resources and Environmental Control (“DNREC” or “Department”) pursuant to *7 Del. C. §§6004, 6006, and 9104* and *29 Del C. §8003*, presided over a public hearing on August 30, 2005, commencing at 6:00 p.m. at the Carvel State Office Building, Wilmington.

The hearing was held to consider public comments and questions on the Department’s proposed plan of remedial action for a 2.89 acre parcel of land at 100 South Justison Street, within the City of Wilmington, New Castle County (“Boulevard Property”). On September 23, 2004, Boulevard Park Enterprises, L.P. and the Department’s Director Division of Air and Waste Management (“DAWM”) entered into a “Voluntary Cleanup Agreement for Facility Evaluation/Remedial Investigation Feasibility Study/Interim Design/Remedial Action.” This agreement was under the Department’s Voluntary Clean-up Program (“VCP”) and the Brownfields program,

which are established pursuant to the Hazardous Substance Cleanup Act (“HSCA”). 7
*Del. C. §9101 et seq.*¹

The Boulevard Property was assigned DNREC Project No. 1331, and in October 2004 the Department prepared and publicly noticed a Proposed Plan of Interim Response Activities, which also included the adjacent property, known as the Berger Brothers property, which was owned by the Delaware Department of Transportation (“Del DOT”).² The Boulevard Property is proposed to be redeveloped from its former use as an abandoned industrial warehouse, which subsequently was torn down as approved in the interim plan. The proposed redevelopment use would be a proposed commercial office building and parking garage building to be undertaken by Pettinaro Construction Company as the developer of both the Boulevard and Berger Brother Properties. The developer has named the office and parking complex the Christina Crescent, and the plans include Jupiter Bank as the primary occupant of the buildings.

The proposed Christina Crescent complex would have the office building located along West Street on the southern and eastern boundaries of the Boulevard and Berger Bother Properties, while the proposed parking garage would be located along the northern boundaries adjacent to the Amtrak lines. The Boulevard Property is bordered on the east and south by West Street, on the west by Justison Street, and to the north by Amtrak railroad tracks. The total property to be redeveloped by the Christina Crescent complex is 5.9 acres, and all but a small (1-2%) portion of the entire site would be covered by a building, driveway, or a concrete pedestrian plaza with landscaping.

¹ In addition, a federal law, the Comprehensive Environmental Response Compensation and Liability Act of 1980 (“CERLA”), allows the Department to investigate and remedy contaminated sites.

² This property also participated in the VCP (DNREC Project No. 131).

The Department did not receive any public comment or request for a hearing on the proposed Interim Response Plan for the Boulevard and Berger Brother Properties, which the developer then had named the West Street Project. The Department also did not receive any comment or request for a hearing on the Proposed Plan of Remedial Action for the Berger Brothers Property, which the Department approved as a final plan on November 13, 2003.

On March 28, 2005, Brightfields, Inc., a recognized environmental engineering firm that DNREC approved for use in this HSCA investigation and remediation, submitted to the Department on behalf of Pettinaro Construction Company a “Remedial Investigation Report & Focused Feasibility Study” (“RI Report”) in compliance with the VCP agreement. The Department reviewed the RI Report and prepared a proposed plan for remedial action, which Division Director James Werner approved on July 19, 2005.

The Department published a public notice on July 20, 2005 that adequately described the proposed plan and required all public comments to be sent to the Department by August 8, 2005. On August 8, 2005, Alan Muller, Executive Director of Green Delaware, sent an e-mail to Division Director Werner with comments on the proposed plan and a request for a public hearing. The Department determined that the request was meritorious, and published notice of a public hearing on August 30, 2005.

Members of the public attended the hearing, and those present who wanted to be included as interested persons entered their names and addresses on the hearing’s sign-in sheet. The Department did not receive any written comments other than those presented into the record at the public hearing, which were marked as hearing exhibits. This Hearing Officer, in a letter e-mailed to the public hearing’s participants and the

Department's technical personnel requested certain additional information from the technical personnel in response to issues raised at the public hearing. I also allowed the participant an opportunity to submit written comments until September 14, 2005. DAWM and BrightFields submitted via e-mail written comments in response to my letter. I have developed a remedial decision record, and this report includes the discussion of the more important issues for the Secretary's consideration and a recommendation.

II. SUMMARY OF THE REMEDIAL DECISION RECORD

HSCA requires that a remedial decision record be developed. I consider this record to include the public hearing record, which contains a two hundred page verbatim transcript of the public hearing, and documents, marked as Exhibits ("Ex."), which were admitted into the public hearing record as hearing exhibits. In addition, to the extent that further development of issues or investigation of matters is required, then the statute allows the Secretary to consider that as part of the decision-making process undertaken in determining the Department's final action. My request for post-public hearing information is consistent with the development of a remedial decision record that develops issues raised in the public hearing, and the Secretary also may include information in making the Department's final decision.

The hearing record included Division Director Werner and Project Managers Richard Galloway and Lindsay Hall making brief presentations that explained the investigation of the property, the proposed health and environmental risks, and the four alternatives the DAWM considered before proposing the plan of remedial action. The Department proposed a remedial action that would reduce the risks to acceptable

standards, which in Delaware is reducing a potential harm to an accepted level, as defined as a possible increased health risk to one person per 100,000 people from exposure to a hazardous substance found at the Boulevard Property. The Department reviewed and approved a risk assessment using certain conservative assumptions, including that human contact readily will occur without any remedial action.

The conservative assumption is highlighted by the Boulevard Property. The borings discovered a small amount of coal tar droplets buried approximately twenty feet below the surface in a small portion of the Boulevard Property. The analysis assumed human contact with the coal tar's vapors, which were assumed to rise up the twenty feet and penetrate through the concrete foundation of the buildings. This assumption of such an impact from small droplets is nevertheless the basis for the remedial action when the scientific modeling, as approved by the federal Environmental Protection Agency ("EPA") and used in Delaware and other states.

The Department applied Section 8.4(1) of the Department's HSCA Regulations, site which requires the Department to establish specific remedial action objectives ("RAOs") for all plans of remedial action. For the Boulevard Property the following RAOs were established:

1. Prevent human exposure to contaminated soil and groundwater under future restricted land use for as long as the contaminated soil remains at concentrations exceeding acceptable concentrations;
2. Prevent the use of groundwater for all purposes at the site for as long as the groundwater is contaminated with hazardous substances at unacceptable concentrations;
3. Restrict environmental degradation due to contaminated soil and groundwater;
4. Minimize potential exposure to contaminated soil and groundwater for workers during Site development;

5. Control potential contaminated soil erosion and subsequent overland transport of contaminated soil and surface water to the Christina River during Site development;
6. Properly reuse or dispose of all excavated soil and groundwater generated during construction, in accordance with local, state and federal regulations.

DAWM developed these RAOs to be consistent with the planned development of the Site and the surrounding land and development plans for the City of Wilmington, zoning policies, state regulations governing water supply, and worker health and safety.

The Department proceeded to develop the following qualitative remedial action objectives based upon the restricted site use of the Boulevard Property as a commercial office building³:

1. Prevent human exposure to soil contaminated with PAHs and metals that would result in a cumulative carcinogenic risk factor greater than 1×10^{-5} and a non-carcinogenic risk greater than Hazard Index of 1.0 for as long as concentrations of hazardous substances exceed acceptable concentrations.
2. Prevent human exposure to groundwater contaminated with VOCs that would result in a cumulative carcinogenic risk factor greater than 1×10^{-5} and a non-carcinogenic risk greater than Hazard Index of 1.0 for as long as concentrations of hazardous substances exceed acceptable concentrations.
3. Prevent human exposure from indoor intrusion of vapor from subsurface soil and groundwater contamination (vapor intrusion) in future buildings having a cumulative carcinogenic risk factor greater than 1×10^{-5} and a Hazard Index of 1.0 for as long as concentrations of hazardous substances exceed acceptable concentrations.

DAWM evaluated four potential remedial actions to see if they would accomplish the above remedial action objectives:

Alternative 1: No Action

Alternative 2: Contaminated Soil Removal and Capping: Removal of all contaminated soil across the entire site and the implementation of

³ The remedial action contemplates restricting the future usage of the Boulevard Property to commercial and industrial uses. The proposed office building would be a certified 'Green Building' designed in accordance with nationally recognized standards.

institutional controls to control potential exposure to utility workers and unauthorized digging.

Alternative 3: Selective Soil Removal, Capping and Long-term Stewardship. Exhumation and safe disposal of contaminated soil encountered during site grubbing and grading, building construction, excavation for foundations, footings and parking garages, as well as utility corridors using adequate safe worker safety training and protections. All utility corridors will be constructed with clean fill and a marker layer indicating the presence of contaminated soil beneath the layer. This soil excavation and disposal operation will be integrated into the project construction timetable to ensure expedited excavation and disposal and avoidance of interruption with the overall project timetable. In addition, the entire site surface, will be capped with at least two (2) feet of clean fill and a vapor barrier will be constructed under appropriate portions of the developed site. Finally, DNREC and the site developer will be undertaking a long-term stewardship program including a restrictive covenant consistent with Delaware's UECA.

Alternative 4: Capping and Institutional Controls: Covering the existing surface of the site with two feet of clean fill and capping the site with buildings, pavement, hardscaping and landscaping. All utility corridors would be constructed with clean fill and a marker layer indicating the presence of contaminated soil beneath the layer. Institutional controls to control potential exposure to utility workers and unauthorized digging.

DAWM rejected alternative 1 (no action) as not a viable alternative because it would not protect human health or the environment to meet the established accepted limits. Thus, it would not comply with the current laws and regulations. DAWM determined that Alternatives 2 and 4 would equally meet the accepted limits, but Alternative 2 would involve extensive soil excavation and would be more difficult and expensive to implement due to the extent of dewatering that would be required. Alternative 3 (Selective Soil Removal, Capping and Long-term Stewardship) provides the accepted level of environmental protection but only removes contaminated soil encountered during site preparation and construction activities. Alternative 4 entails no soil removal and would be less costly than Alternative 3.

DAWM selected Alternative 3 (Selective Soil Removal, Capping and Long-term Stewardship) as the preferred remedial action for the Site based on its cost effectiveness, sustainability, and appropriateness with regards to meeting remedy selection criteria found in HSCA regulations. DAWM's selection was consistent with the requirement for a proposed plan that achieves the goals in the least costly manner. The remedial action plan proposed was based on extensive scientific modeling and analysis that the Department uses in evaluating all its Brownfields projects and the science and expertise applied to the data are consistent with the federal regulation and followed by other states.

The proposed plan identified groundwater and soil contaminations in excess of the regulatory standards, which triggered the proposed plan of remedial action to reduce the impact of the contaminants to acceptable levels as determined by the Department. The soil investigation revealed the presence of arsenic at an average concentration level of 18.5 parts per million ("ppm"), which is a level in excess of the 11 ppm Delaware uses for an acceptable background level. In addition, benzo(a) pyrene was detected at an average concentration of 1.83 ppm, which is excess of the 0.8 ppm standard.

The proposed plan set forth its analysis of groundwater as follows:

Groundwater at the site occurs in two different zones (shallow and deep). In the shallow groundwater zone, groundwater was encountered at depths ranging from 2 to 5 feet bgs in the borings completed across the Site. The upper shallow groundwater zone consists of saturated fill (3-10 ft thick) which overlies the former surface deposits of low permeability marsh deposit and silt with some fine sand and clay. Shallow groundwater beneath the Site is estimated to flow south-southeast toward the Christina River. The shallow groundwater zone and the deep groundwater zone are separated by approximately 5-20 feet of low permeability marsh deposit and silt with some fine sand and clay.

The deep groundwater zone was encountered at depth of 20-25 feet bgs and consists of inter-layered silt, clay, and sand deposits. One (1) well was installed in this zone, to monitor potential impacts of (Non-aqueous

phase Liquid) NAPL observed in an adjacent soil boring. The NAPL was identified as relatively unweathered tar.

Trichloroethene (TCE) and vinyl chloride are the contaminants of concern in the shallow groundwater, which were identified in the up gradient well. These contaminants are possibly from an offsite source. Benzene, toluene, ethylbenzene, and naphthalene are the contaminants of concern in the deep groundwater. Manganese and iron were also detected in the deep groundwater zone above the Uniform Risk-Based Remediation Standards (URS). The DNREC's URS criteria for iron and manganese are based on the Secondary Maximum Contaminant Levels (SMCLs) that are aesthetic-based (taste and odor), not health-based criteria. Therefore, iron and manganese are not considered contaminants of concern.

The proposed plan was designed using extensive site investigation of the Boulevard Property and surrounding properties that also have been subject of HSCA investigations. The analysis applied was consistent with the widely accepted procedures under HSCA in Delaware. The Department analysis considered removing the contaminant or eliminating the pathway a contaminant could take to adversely impact the environment.

In support of its proposed position, the Department presented the following documents into the record as exhibits

- DNREC Exhibit 1 Proposed plan of Remedial Action for the Boulevard Site, July 19, 2005
- DNREC Exhibit 2: Legal notice of the Proposed Plan of Remedial Action for the Boulevard Site.
- DNREC Exhibit 3: August 8, 2005 e-mail request for Public Hearing by Alan Muller,
- DNREC Exhibit 4: Legal notice of Public Hearing.
- DNREC Exhibit 5: Amended Final Plan of Remedial Action for the Christina River Pedestrian Walkway, June 2000
- DNREC Exhibit 6 Remedial Investigation/Focused Feasibility Study for the Boulevard March 2005
- DNREC Exhibit 7: Brightfields, Inc. letter regarding the Opinion of Non-Aqueous Phase Liquid (NAPL) Removal, dated May 4, 2005
- DNREC Exhibit 8: DNREC's response letter to Brightfields, Inc. letter regarding NAPL Removal, dated May 5, 2005
- DNREC Exhibit 9: Sediment Quality Assessment for the Tidal Christina River Basin, Volume I: Report of Findings, February 2000
- DNREC Exhibit 10: Brownfields Preliminary Assessment II for the O'Brien property, September 2000
- DNREC Exhibit 11: Fact Sheet for August 30, 2005 hearing

- DNREC Exhibit 12: Slide presentation of August 30, 2005 hearing/Site presentation handout
- DNREC Exhibit 13: DNREC's written response to Alan Muller's comments
- DNREC Exhibit 14: Proposed Plan of Interim Action for West Street Project, October 2004
- DNREC Exhibit 15: Analysis of Fish Tissue Samples for polychlorinated PCDDs, PCDFs, PCBs, pesticides, PAHs assessing Pollutant Bioaccumulation from selected Delaware Stream Basins.
- DNREC Exhibit 16: Voluntary Cleanup Program Agreement for the Boulevard Site
- DNREC Exhibit 17: Rick Greene's DWR comments on surface water impacts
- DNREC Exhibit 18: *Remediation Standards Guidance Under the Delaware Hazardous Substance Cleanup Act, December 1999*
- DNREC Exhibit 19: *Delaware Regulations Governing Hazardous Substance Cleanup, September 1996, Amended, February 2002*

Mr. Alan Muller, Executive Director of Green Delaware, presented extensive comments and asked numerous questions for more than two hours. In addition, he offered documents as exhibits and these were marked as Green Delaware Exhibits 1 through 6, which were various portions of laws, regulations, guidelines, and the EPA-DNREC memorandum of understanding. Mr. Muller's comments and questions addressed the nature of the DNREC public hearing process, the investigation of the property and the remedial action proposed by DAWM. His extensive questioning and written comments included as part of his request for a hearing indicate considerable time devoted to understanding the issues. The Department provided Mr. Muller at the public hearing with a written response to his written questions and concerns submitted with his request for a hearing, and provided further oral responses to his questions at the hearing.

Mr. Muller requested party status, the appearance of additional Department personnel from the Division of Water Resources at a future hearing, additional time to present comments, and additional time to ask questions. I denied these requests on the public hearing record and will elaborate on the reasons in the discussion portion of this report.

Mr. John Kearney also presented extensive public comments and questions, and raised similar requests for continuing the hearing, party status, and the appearance of additional personnel as Mr. Muller's. Consequently, this was addressed in the discussion of Mr. Muller's requests.

Ms. McGonegal, Mr. Simeon Hahn from NOAA, Mr. Ray Petrucci from DEL DOT, and Ms. Marian Young, President of BrightFields, Inc., presented public comments. Ms. McGonegal requested the Secretary issue a stop work order, requested that the public hearing record be kept open for thirty days and questioned the construction activity underway and its dust, the statistical analysis used, and the timing of the Division of Water Resources' response that was provided the day of the hearing based upon Mr. Muller's request for a hearing. Mr. Hahn indicated support for the Green Building, the property remediation, and the need to look at cumulative impacts in the area beyond the specific property. Mr. Petrucci indicated DEL DOT's support as a partner in the redevelopment of the property and how this project was a model for agency cooperation. Ms. Young responded to some of the public comments. In addition, Ms. Mariella Ross from Mid-Atlantic AAA, which occupies the property across from the Boulevard property's southern boundary along West Street appeared, but left before speaking. Mr.

Bob Anderson and Mr. Greg Pettinaro of Pettinaro Construction and Mr. Curt Hatfield, P.E. from BrightFields, Inc. were present and answered questions.

Following the adjournment of the public hearing, I requested the department's technical personnel to provide answers to certain questions raised during the hearing and I also allowed the public participants a further opportunity to provide additional written comments. In response, I received a letter dated September 12, 2005 from BrightFields, Inc. and DAWM provided responses to my letter requesting certain information.

The above summary may not include each point raised, but for purposes of this report the more salient issues are identified and similarly only certain issues will be discussed.

III. DISCUSSION

As a preliminary matter, DAWM requests expedited consideration of the proposed plan and approval of a final plan because any undue delay also delays any remediation and redevelopment. The interest of Pettinaro Construction, as the developer of the proposed Christina Crescent project, and Jupiter Bank, as the proposed project's major occupant, in timely redevelopment also should be considered because any undue delay in the consideration of the proposed plan and approval of a final plan could jeopardize the entire project. I consider these to be valid environmental and business concerns consistent with the Brownfields program's statutory purpose to encourage redevelopment in an environmentally sound manner. Thus, I recommend expedited consideration by the Secretary, and this report has been prepared as expeditiously as possible.

As noted above, I requested DAWM to provide additional information in response to the questions raised at the public hearing, and DAWM's response is attached hereto as Appendix A and incorporated herein.⁴ The response indicates that the proposed plan of remedial action will remedy any health risk from any unintended use of the office complex. The vapor barrier remedy will bring the risk to under the accepted risk standard for any intended usage of the Boulevard Property, which will be restricted by deed to commercial or industrial usage pursuant to the proposed plan. DAWM also indicates that the life of the vapor barrier to be placed underneath the buildings is indefinite. In addition, BrightFields' post-hearing submission also elaborated on the reasons and science supporting the proposed plan. These responses provide useful information that should be included in the record developed for the Secretary's consideration.

Based upon my review of the record as developed to date, I find and conclude that the proposed plan of remedial action is consistent with the Department's statutory purposes and the specific Brownfields provisions. The Brownfields provisions are within HSCA, and its stated purpose is set forth below:

a) The General Assembly recognizes that large quantities of hazardous substances are and have been generated, transported, treated, and stored within the State. The General Assembly also recognizes that some hazardous substances have been stored or disposed of at facilities in the State in a manner insufficient to protect public health or welfare or the environment. The General Assembly finds that the release of a hazardous substance constitutes an imminent threat to public health or welfare or the environment of the State. The General Assembly intends by the passage of this chapter to exercise the powers of the State to require prompt containment and removal of such hazardous substances, to eliminate or minimize the risk to public health or welfare or the environment, and to

⁴ The response document is not in the public hearing record, but was prepared to respond to the public hearing record in order to assist the Hearing Officer and ultimately the Secretary in reviewing the record and providing technical advice and expertise necessary for a final decision.

provide a fund for the cleanup of the facilities affected by the release of hazardous substances.

(b) The General Assembly finds that private parties should be provided with encouragement to exercise their responsibility to clean up the facilities for which they are responsible, but that if they refuse to do so, then the State should conduct the cleanup and recover the costs thereof from the private parties.

(c) The General Assembly recognizes the need to remedy contaminated facilities and to promote opportunities and provide incentives to encourage the remedy of such facilities to yield economic revitalization and redevelopment within the State.

(d) The General Assembly finds that in order to effectuate the purposes of this chapter to remedy contamination resulting from past acts and to address more equitably the issue of who should bear the costs of remediation, § 9105 of this title shall apply to all responsible parties without regard to the date of enactment of this chapter or any amendments thereto

7 Del. C. §9102.

The law defines “Brownfields” as “any vacant, abandoned, or underutilized real property the development or redevelopment of which may be hindered by the reasonably held belief that the real property may be environmentally contaminated.” *7 Del. C. §9103(3)*. The law also defines “remedial action” as “the containment, contaminant mass or toxicity reduction, isolation, treatment, removal, cleanup, or monitoring of hazardous substances released into the environment, or the taking of such other actions as may be necessary to prevent, minimize or mitigate harm or risk of harm to the public health or welfare or the environment which may result from a release or an imminent threat of a release of hazardous substances.” *7 Del. C. §9103(21)*.

Some of the public comments reflected the belief that site remediation should require total removal of each and every contaminant, but the definition of “remedial action” clearly does not require that to be done. Instead, the remedial action is to satisfy

certain existing standards. I find and conclude that the proposed plan of remedial action is consistent with the stated statutory purpose. The Boulevard Property specifically and the surrounding areas in general will benefit from the remediation that will occur if the Secretary approves the proposed plan as the final plan of remedial action.

Clearly, the Boulevard Property meets the definition of a Brownfields site. The proposed construction of a new building on the Boulevard Property also is consistent with the Brownfields law as it will benefit the aesthetic and economic redevelopment of the Boulevard Property, which is located in an existing urban area readily served by mass transit. The Brownfields law does not mandate the Department to consider aesthetics, urban redevelopment or the convenience of mass transit, but such considerations are consistent with the Department's overall statutory purpose to promote the protection of the environment. Thus, the proposed redevelopment of the Boulevard Property is consistent with the goal of the Brownfields statute and the intended future use is consistent with the Department's purpose to protect the environment.

The fact the redevelopment of the Boulevard Property will include the construction of a certified 'Green Building' oddly was the subject of some controversy in the public hearing when Mr. Muller objected to the display of the artist depiction of the 'as built' complex. I agree with Mr. Muller that the Brownfields law does not require a developer to build a 'Green Building,' which means that the Department could not have mandated a 'Green Building' as part of an approved final plan. Nevertheless, I consider the final use of the site relevant for the Secretary's consideration because it is consistent with the Department's purpose, which Mr. Muller criticized the Department for not following. I find his opposition and an effort to delay the project contrary to the public

interest when this project represents the epitome of sound redevelopment in a manner that is well in excess of the law's environmental mandates. The project's appeal of this particular redevelopment, as opposed to a building that is not a 'Green Building,' provides even more reason to expeditiously approve the proposed plan as a final plan.

The consideration and approval of a final plan does not mean that the Department should avoid its duty to ensure that the redevelopment, as approved by a final plan of remedial action, occurs consistent with the Department's laws, regulations and guidelines. DAWM's proposed plan set forth in detail the consideration of the regulatory requirement. I find that the public comments did not raise any fact that supported any change to the adoption of the proposed plan as a final plan. I find that the proposed plan will protect the public health and environment from what, even without any remedial action, is a very remote possibility of environmental harm from the existing contaminants discovered on the Boulevard Property as a result of the site investigation.

The public questions to the proposed plan really focused the accepted limits of risk. The public comments did not provide any valid scientific reason to re-open the standard of an acceptable risk, which is the foundation of the investigation and proposed remedial action necessary to remedy the identified risk. The determination of an acceptable risk used for this site was the same as very other site, and to the extent the Department determines to re-consider the risks assessment standards to follow, then such a review would appropriately be done in a rulemaking proceeding as it has state-wide ramifications.

The public comments also raised questions to the conduct of the public hearing. First, a Department public hearing on a proposed plan is not governed by the

Administrative Procedures Act., 29 Del C. 10101 et seq. (“APA”) Instead, the Department’s public hearings on proposed plan of remedial actions are governed by 7 Del. C. §§6004 and 6006, which essentially allow the Secretary to hold a public forum for the opportunity to present comments for the Secretary’s consideration before a final decision is made. Consequently, the laws do not provide any right to ‘party’ status, or for the public to cross-examine or to conduct discovery. I agree that the APA may allow party status and other trial type procedures for use in its adjudicatory style hearings involving case decisions. Even without the APA, the public has no right to an adjudicatory style hearing on Department pending actions unless the action may infringe upon a constitutional property right. I find that the proposed plan will not infringe upon any protected right of the public to a hearing other than what was provided. In sum, the Department’s public hearings are to be an opportunity for the public to be heard on a pending matter before final decision, which literally means to present comments in a public forum that must be considered by the Secretary. The Secretary makes the final decision, and determines the Department’s policies through his decisions, including how hearings should be conducted.

I find that the remedial decision record on the Boulevard Property shows that DAWM conducted a sound and reasoned decision making process beginning with the site investigation and through the development of a proposed plan of remedial action. The proposed plan is supported by expertise and scientific analysis, and follows the same procedure used for other proposed plans in Delaware. I find that BrightFields, a respected and DNREC approved environmental engineering firm, conducted a thorough and complete investigation under the Department’s direction and supervision. The result of

the investigation was that certain hazardous substances were discovered and that they could pose a health risk if not the subject of an appropriate remedial action to reduce the risk to acceptable levels. I find that the proposed remedial action should reduce the harm from the hazardous substances discovered to acceptable levels. The expertise and experience supporting the approval of the proposed plan as the final plan is reflected in the extensive supporting documents in this remedial decision record.

The public comments also questioned the amount of construction activity at the site based upon personal observations of the site on the day of the hearing. I did not observe the site, but rely on the DAWM to determine whether any violation of the interim plan approval has occurred. DAWM has not recommended any corrective action and the Secretary has considerable discretion to undertake an enforcement action. The Department explained that the construction activity was part of the interim plan that the Department approved, and that no permanent construction other than approved had been undertaken until the final plan is approved.

IV. RECOMMENDED FINDINGS AND CONCLUSIONS

Based on the record developed, I find and conclude that the record supports approval of the proposed plan for remedial action as a final plan. Consequently, I recommend that the Secretary enter an order with the following findings and conclusions:

1. The Department has jurisdiction under its statutory authority to make a determination in this pending action;
2. The Department provided adequate public notice of the subject matter of the pending action and the public hearing;

3. The Secretary delegated to a hearing officer the authority to preside over a public hearing held at the request of one person;

4. The Hearing Officer presided over the public hearing and developed a recommended remedial decision record and report for the Secretary's consideration;

5. The Department considered all timely and relevant public comments in making its determination in this Order;

6. The Department's technical experts supervised a thorough site investigation under the Brownfields program, considered the results of the site investigation, and prepared a proposed plan of remedial action consistent with the law and the Department's regulations and guidelines;

7. The Department proposed plan of remedial action was based on a record that shows a reasoned and deliberate process that supports the adoption of the proposed plan as a final plan as consistent with the Brownfields law and Department regulations;

8. The Department should approve the proposed plan as the final plan as quickly as possible to allow the site remediation to proceed without any undue delay and enable the site to be redeveloped consistent with the Brownfields law, Department regulations, and sound and safe economic redevelopment;

9. The Department's authorized official should implement the issuance of the final plan of remedial action as approved by this Order, and copies of this Order and final approved plan shall be provided to the persons who attended the public hearing and any other persons who expressed an interest in the Department's decision on the proposed plan.

s/Robert P. Haynes, Esquire
Hearing Officer

Division Response Document

September 14, 2005

Mr. Robert P. Haynes
Office of the Secretary
State of Delaware
Department of Natural Resources and Environmental Control
89 Kings Highway
Dover, DE 19901

VIA HAND DELIVERY

**RE: Proposed Plan of Remedial Action
Boulevard Property (DE-1331)
Wilmington, Delaware**

Dear Mr. Haynes:

The purpose of this letter is to respond to your questions addressed to DNREC in a letter dated September 7, 2005. In your letter, you requested that the Delaware Department of Natural Resources and Environmental Control -Site Investigation and Restoration Branch (Department) technical personnel address questions that were raised at the August 30, 2005 public hearing for the Proposed Plan of Remedial Action for the Boulevard Property (Site). The questions presented in the letter and the Department's responses are presented below:

1) What is the time frame for the proposed construction?

Construction of the preliminary foundation structure including concrete grade beams is scheduled to begin in late September 2005. Final building construction is scheduled to be completed in the summer of 2006 with buildings opening in the fall of 2006. Concrete grade beams are viewed as permanent structures by DNREC. The construction of the concrete grade beams cannot begin until after the final plan of remedial action is approved. The final plan cannot be approved until after the hearing decision. Therefore, a hearing decision is necessary by September 15, 2005 in order to avoid a delay in the construction schedule. A delay would jeopardize the construction completion and possibly stop the redevelopment of the site. Any additional cleanup at the site could be jeopardized.

2) What is the impact of unanticipated users/uses of the office building on the Department's risk analysis and remedy; i.e., child care scenario?

There is no impact to users of the office building because of the remedial action. A vapor barrier will be placed underneath the building to prevent intrusion of vapor into the building. Since

there will be no exposure to vapor, there is no risk to adults or children using the office building. Monitoring the integrity of the vapor barrier in the future would be covered in the Operations and Maintenance (O&M) plan.

3) What are the cost estimates for the remedies and would they jeopardize the voluntary remediation?

<u>Remedial Options</u>	<u>Estimated Cost to Implement</u>
Alternative #1: No Action	\$6,000.00
Alternative #2: Contaminated Soil Removal and Capping (Removal of all contaminated soil)	\$25,021,000.00
Alternative #3: Selective Soil Removal, Capping and Long-Term Stewardship	\$597,000.00
Alternative #4: Capping and Institutional Control (No soil removal)	\$221,000.00

DNREC's screening process for remedial alternatives is presented below. DNREC screens all the remedial options based on the following criteria:

- Protection of public health, welfare and the environment;
- Compliance with applicable laws and regulations;
- Community acceptance;
- Compliance monitoring requirements;
- Permanence;
- Technical practicability;
- Restoration time frame;
- Reduction of toxicity, mobility and volume of contamination;
- Long-term effectiveness; and
- Short-term effectiveness.

DNREC determined that Alternatives #2 and #3 provided equal protection to human health and the environment. Both alternatives met the requirements for the other criteria. According to Section 8.5(4)(c) of the Delaware Regulations Governing Hazardous Substance Cleanup, if two options are equally protective of human health and the environment then "preference shall be given to the remedial action which is most cost effective, and cost shall include present and future direct and indirect capital costs, operation and maintenance costs, compliance monitoring costs and other foreseeable costs." Since Alternative #3 was protective and more cost effective to implement, DNREC chose to implement Alternative #3.

The remedial selection is based solely on the 10 criteria presented above; DNREC does not base the remedy selection on whether the potentially responsible party (PRP) or owner wants to pay for the remedy or may elect to end the voluntary cleanup program agreement with DNREC. The PRP may walk away from the project at anytime. DNREC may pursue enforcing against PRPs to accomplish the cleanup.

4) Was removal of the coal tar portion of the site considered as a remedy?

Removal of the coal tar was considered as a remedy at the site. The removal of the coal tar at the site was addressed in a letter from Brightfields, Inc. to DNREC dated May 4, 2005. The removal of the coal tar (also referred to as NAPL) was determined to be technically impractical according to Subsection 8.5 of the Delaware Regulations Governing Hazardous Substances Cleanup” for the following reasons:

- 1) The only risk to human health or the environment is from vapors which will be addressed through the use of a vapor barrier.
- 2) Current technologies are not efficient at removing the coal tar because it is present only as droplets in small lenses deep in the ground. The viscosity of the coal tar is such that it can't be pumped from the ground as a liquid.
- 3) Extensive shoring would be required to excavate to 30 feet depth. The shoring may not be sufficient to prevent the collapse of West Street.

In summary, since there are substantial questions about how easily the coal tar can be removed, if it is safe to dig to that depth, it generates more waste than the amount of coal tar present in the ground and the health risk to vapors can be addressed with a remedial technology, DNREC determined that it is technically impractical to remove the coal tar.

5) How much water from the site is estimated to impact the surface water and how will it impact the surface waters?

As calculated by Brightfields, Inc. in the Remedial Investigation (RI), the amount of groundwater flowing from the Site to the Christina River is 69 to 1,421 cubic feet per day. The reason for the range is that mass loading calculations used a range of soil types (poorly sorted fine to coarse sand) that the groundwater is flowing through. These soil types represented the range in the types of soil present at the site.

The conservative mass loading calculations performed by Brightfields and reviewed and approved by DNREC indicated that there will be no impact to the surface waters from the groundwater at the site. The calculations included the use of the EPA-recommended Bioscreen model which conservatively predicted concentrations at the groundwater-surface water interface.

6) Has there been any analysis of the soil removed from the site for pre-construction activities and does the analysis change any of the results or conclusions?

Soils removed during the pre-construction activities were analyzed. Disposal characterization samples (TCLP) were collected prior to excavation from the geotechnical borings and the site was also separated into three soil disposal grids and a shallow and deep sample were collected from each grid.

The results are in agreement with the results of the remedial investigation. Therefore, no change in the conclusion about contamination at the Site is necessary.

7) How long does a vapor barrier, as recommended, last?

The vapor barrier will be designed to last for the life of the building. One of the barrier's design criteria will be that it is required to be highly resistant to petroleum vapors (type of vapor anticipated at the site) according to the best available standard, American Standard for Testing and Materials document ASTM E154-99 Section 14. The manufacturer of the recommended product is Stego Industries and they state that the life expectancy of their product per ASTM E 154 is "indefinite." In addition, the integrity of the barrier will be monitored periodically through the O&M process. The barrier design and testing requirements will be finalized during the Remedial Design, which requires evaluation and approval by DNREC.

8) Did the Department follow the same analysis and selection of remedies protocol for this site as it did for other sites?

Yes, DNREC followed the same analysis and selection protocols for this site as it does for other sites. As described in detail in DNREC's response to Question #2, the remedies are selected to address the pathways of concern. Brightfields proposed three remedies for the site and DNREC chose to present four alternatives. DNREC screened the remedial alternatives using the 10 criteria presented in response to question #2 and two alternatives were determined to be equally protective. As required by the Regulations Governing Hazardous Substance Cleanup, DNREC chose Alternative #3: Selective Soil Removal, Capping and Long-Term Stewardship because it was the most cost effective of the two alternatives.

Please feel free to call with any questions or concerns at (302) 395-2600.

Sincerely,

Richard M. Galloway
Project Manager

Lindsay Hall
Project Manager

RMG/LJH/plw

RMG05074.doc; LJH05051.doc; DE-1331 II H5

Pc: Kathy Stiller Banning, Environmental Program Manager II
Qazi Salahuddin, Environmental Program Manager I