



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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February 6, 2014

E.I. DuPont De Nemours & Co.
Attn: David E. Epps, Project Manager
2000 Cannonball Road
Pompton Lakes, NJ 07442

Re: E.I. DuPont De Nemours & Co.
Pompton Lakes, Passaic County, New Jersey
SRP PI# 007411

Dear Mr. Epps:

The New Jersey Department of Environmental Protection (Department) as well as the U.S. Environmental Protection Agency (EPA) have completed a review of the documents titled "Request for Modification to VIRM Work Plan" dated April 25, 2013 as well as the subsequently requested document submission titled "Revised Vapor Interim Remedial Measure Work Plan" (VIRMWP) dated December 6, 2013, submitted pursuant to the Resource Conservation and Recovery Act (RCRA) Hazardous and Solid Waste Amendments (HSWA) Permit of 1994, the Administrative Consent Order (ACO) executed on September 15, 1988 and the Technical Requirements for Site Remediation at N.J.A.C. 7:26E (Tech Rules).

The Department/EPA hereby approve DuPont's request for modification of the comparison levels used in the Vapor Interim Remedial Measure (VIRM) program such that they are consistent with the current regulatory guidelines as outlined in the Department's Vapor Intrusion Technical Guidance (VIT Guidance) dated March 2013. However, the Department is deferring to the USEPA concentration of 2 ug/m³ comparison level for trichloroethylene (TCE) in indoor air.

The Department/EPA cannot approve the VIRMWP dated December 6, 2013 at this time as the following Department/EPA comments must be addressed.

Department Comments:

VI Investigation Triggers – Sub-Slab Soil Gas, Section 2.1.2

DuPont shall be aware that an exceedance of a Soil Gas Screening Level (SGSL) for a contaminant of concern (COC) is a trigger for a vapor intrusion (VI) investigation whether or not groundwater results exceed the Groundwater Screening Levels (GWSL) for the same COC. This issue must be clarified.

Identification of Areas for Revised VI Program, Section 2.2

The Technical Rules require that a VI receptor evaluation be conducted for all buildings within 100 feet of an identified vapor concern [N.J.A.C. 7:26E-1.15(e)6] or immediate environmental concern [N.J.A.C. 7:26E-1.11(a)6ii(2)]. If appropriate, this step-out provision should also be properly labeled on Figure 3.

Sampling Methodologies and Procedures – Sub-Slab Soil Gas, Section 3.1.2

The Revised VIRMWP proposes not to conduct leak checks using tracer gas based in part on the fact that the Department's data validation detected no issues with the 164 SSSG samples collected to date. However, data validation evaluates the quality of the laboratory analysis not the sample collection. Leak checks are done to assess the integrity of the sampling train, including the sample port.

Leak checks should be conducted on a percentage (5-10%) of the SSSG samples collected. A water dam test is an acceptable alternative to the helium shroud. In addition, a shut-in test should be executed at each location as stated in the Vapor Intrusion Technical (VIT) Guidance, March 2013.

DuPont should note that the Department/EPA have no technical issues with the quality of the data regarding the VI investigations/mitigation submitted to date.

Sampling Methodologies and Procedures – Ambient Air, Section 3.1.4

The last paragraph should refer to "ambient" air samples, not "indoor."

Mitigation Methodologies and Procedures, Section 3.2

The first sentence appears to limit VI mitigation to situations where the VI pathway is complete. In fact, the Decision Flow Chart (Appendix A) in the VIT Guidance recommends mitigation when SSSG results are greater than 10 times the SGSLs irrespective of the indoor air results. This provision should be contained in this opening paragraph.

Long-Term Monitoring, Section 3.3

The Revised VIRMWP fails to state when long-term monitoring is appropriate. Without proper clarification, it is assumed that long-term monitoring will be implemented as noted in the Decision Flow Chart (Appendix A) of the VIT Guidance.

System Termination, Section 3.4

Any decision to terminate a vapor mitigation system or long-term monitoring plan can only be considered based on current analytical sample results collected after the mitigation or LTM has been implemented. The investigation of system termination shall be consistent with the VIT Guidance.

Implementation Strategy, Section 4.1

Any actions considered as part of the Implementation Strategy must be based on sample results properly collected and consistent with the most current VIT Guidance and the Technical Rules

(N.J.A.C. 7:26E). Likewise, decisions dealing with the necessity of collecting samples or implementing mitigation shall follow the provisions of the Technical Rules.

The Revised VIRMWP states "Properties designated within the previously-identified Vapor Mitigation Area where sampling has not been conducted to date are eligible for SSSG sampling." DuPont must clarify if this is without consideration of whether the property is inside or outside the Trigger Area or Trigger Distance Area.

The Revised VIRMWP states "Properties designated within the previously-identified Expanded Investigation Area where sampling has not been conducted to date are not eligible for SSSG sampling unless nearby data indicates a need." It should be noted that a VI investigation is required if the property falls within the Trigger Distance Area or otherwise stipulated in the Technical Rules.

DuPont should be aware that the statement that timeframes for investigation and mitigation "are not viewed as applicable" cannot be accepted by the Department/EPA. The Technical Rules as they relate to timeframes are applicable, and should be included.

Property Decision Matrix, Figure 4

Figure 4 fails to include any visual presentation of the system termination process. This step should be presented. No decision on termination of a VI mitigation system can be done without the procedures outlined in Section 6.6 of the VIT Guidance being implemented.

Property Decision Matrix Evaluation Worksheet, Appendix E

The worksheet should include a discussion on termination sampling (as distinct from a VI investigation). Does DuPont recommend termination of an existing mitigation system (and thus termination sampling) or the curtailment of the LTM plan? Justification should be provided if it is not already apparent.

The new trigger area boundary for the TCE exceedance around well 132 (Figure 3) does not seem to be supported by much data beyond the four temporary wells (11, 12, 15 and 20) located at least 300 feet from well 132. While the exceedance of TCE is not high (3.8 µg/l), the NJDEP is unsure that the new trigger area boundary created by interpolation of those ground water data points may be enough justification to exclude homes outside of the boundary. DuPont must clarify this issue.

USEPA Comments:

Page 6: Section 2.1.1 Groundwater – In the third paragraph under the *Offsite Shallow Groundwater Data*, the text should be revised to reflect that the Department/EPA will be requiring additional monitoring well installation to delineate the groundwater plume based on the utilization of the March 2013 Department comparison levels.

Page 8: Section 2.2 Identification of Areas For Revised Vapor Intrusion Program – It should be clarified that the "Trigger Area" corresponds to the former "Vapor Mitigation Area" and the "Trigger Distance Area" corresponds to the "Expanded Investigation Area".

Page 10: Section 3.1.2 Sub-Slab Soil Gas – The first complete paragraph describes the procedure in the event sub-slab soil gas sampling cannot be performed (e.g. due to property access). The

text should be clarified that DuPont would propose an appropriate alternative soil gas sampling procedure for agency review.

Page 11: Section 3.2 Mitigation Methodologies and Procedures - In paragraph 2, DuPont should clarify that any proposed alternative method of mitigation should be submitted for review/approval by NJDEP/EPA.

Page 13: Section 3.2.3 Post-Mitigation Activities, *Verification Sampling* – In paragraph 2, DuPont should describe in the text the multiple lines of evidence approach they propose to utilize to verify the effectiveness of the vapor mitigation system.

Page 13: Section 3.2.4 Operation and Maintenance, *Routine Maintenance* – In paragraph 1, DuPont should provide the procedure that will be followed if there is any problem with the system outside the quarterly and annual inspections proposed by DuPont.

Page 15: Section 4.1 Implementation Strategy – For bullet 3, sub-bullet 5; DuPont should describe the procedure they would follow, if any, should there be an issue with access on a property with a vapor mitigation system installed, but who has not had sub-slab soil gas sampling performed.

Page 16: Section 4.2 Communication Plan – The communication plan must be clarified. The fact sheets and information that DuPont plans to send to residents should be shared with NJDEP/EPA first. In the sixth paragraph, DuPont should understand that the NJDEP/EPA expectation is that DuPont will attend and participate in any public availability sessions held on the revised VI program. In lieu of the draft notification letter that DuPont has not included in this work plan; DuPont should provide a section in the final revised Work Plan that includes what the elements of a notification letter would contain.

Page 17: Section 5 Reporting – It is unclear how DuPont will report on vapor mitigation systems that are turned over to a property owner or decommissioned. While it is assumed this will be tracked in weekly and/or monthly status reports, DuPont should state specifically how it will be tracked.

Figure 4: DuPont Vapor Intrusion/Mitigation Program Property Decision Matrix –

The decision matrix is unclear – specifically the second box on the left. If the answer to ‘Is mitigation required’ is NO, then the “Has mitigation been completed?” question needs to be reworded because it is confusing to imply that mitigation is completed if it is not a requirement. The words ‘required’ and ‘completed’ are subject to interpretation and problematic. Finally, the text in the box about having the system removed is cut off.

Additional detail in the decision matrix is needed. Foot-notes should be used if necessary, to explain or define concepts, such as: Information for adequate evaluation of VI pathway and define criteria for requiring mitigation.

DuPont shall submit a revision to the Revised Vapor Interim Remedial Measure Work Plan (VIRMWP) dated December 6, 2013 which addresses comments in this letter as well as comments provided during the January 7, 2014 meeting between DuPont and the Department/EPA within fourteen (14) days after receipt of this letter. For your convenience, the regulations concerning the Department’s remediation requirements can be found at <http://www.state.nj.us/dep/srp/regs/>.

If you require copies of Department Guidance Documents or applications, many of these are available on the internet <http://www.state.nj.us/dep/srp>. If you have any questions regarding this matter I may be contacted at (609) 633-1416 or you may contact Perry Katz, USEPA at (212) 637-4426.

Sincerely,



Anthony Cinque, Case Manager
Bureau of Case Management

C: Kathleen M. Cole, Mayor, Pompton Lakes Borough
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