



ENVIRONMENTAL DEFENSE

finding the ways that work

August 30, 2005

Linda Fisher
Vice President & Chief Sustainability Officer
DuPont
1007 Market Street, D-6074
Wilmington, DE 19898

Dear Linda:

I am writing on behalf of Environmental Defense to say how much we look forward to working with DuPont to develop a framework for responsible nanotechnology standards, and to thank you for the enthusiasm that DuPont has shown in our discussions to date. This letter outlines the goals, expectations, and processes that we agree are required to successfully conduct our project. Your execution of this letter will be the effective starting date of the project.

1. Environmental Defense and DuPont (together referred to as the "Parties") each have identified as an important goal the development of a framework for the responsible development, production, use and disposal of nanoscale materials that identifies, manages and reduces potential risks across all lifecycle phases (hereinafter referred to as "the framework"). This framework will be used to develop and apply practices to:
 - a) identify potential hazards to human health and the environment of nanomaterials;
 - b) assess the potential for release of and exposure to such materials; and
 - c) manage risks arising from potential exposures of nanoscale materials to workers, consumers, the general public, or the environment during production, use, or disposal.

This Agreement sets out the terms according to which the Parties will work together to develop the framework. More specific goals and elements of the project are outlined in the attached Project Description, which is incorporated by reference into this letter.

2. The project will be carried out by Environmental Defense and DuPont staff, and will require priority effort and time commitment by each of the Parties. Environmental Defense will pay for all expenses that it incurs in connection with the project, just as

DuPont shall be responsible for the costs it incurs. Whenever possible, meeting locations and other project activities will be chosen to equalize these expenses.

3. An important goal of this project is to develop a framework that will be accepted, endorsed, and adopted by a wide range of stakeholders, including other companies, other public interest groups, academia and government agencies. Therefore, the Parties will work to engage a wide range of these stakeholders at various stages throughout the project to draw on their expertise and solicit input.
4. The project will include at least three stages – development, demonstration and publication. The project will also include interim checkpoints for the Parties to review progress, share interim results with other stakeholders, and solicit input from other stakeholders.
5. This work will require substantial information and expertise. Where possible, these needs will be met by using expertise within or accessible to the Parties, by leveraging other ongoing initiatives, or if and where appropriate, by seeking additional partners to the project. Where further outside expertise is needed, the Parties will jointly agree upon and share in the direction of the work of outside resources.
6. Project costs beyond the direct costs (e.g., employment of outside resources) will be allocated in a manner to be determined at the appropriate time. The Parties may seek financial support, including funding from other partners, to cover such costs.
7. In order for the Parties to work together effectively, it may be necessary for the Parties to disclose certain confidential information to each other. The Parties agree that all confidential information will remain confidential and will not be disclosed without the written permission of the Party that owns such confidential information or used by a Party other than in connection with the project discussed herein, subject to the terms and conditions contained in the Appendix.
8. In order to maximize the environmental benefits from the project, Environmental Defense and DuPont agree that information, tools and methods that arise from it should be made as widely available as possible. Upon the completion of their work, Environmental Defense and DuPont agree that both Parties are free to make publicly available information, tools and methods developed in the course of the project. This may be done through a public report or through other materials released by one or both Parties, providing that such disclosure is consistent with the other terms of this Agreement.
9. Neither DuPont nor Environmental Defense shall refer to the project discussed herein in any advertising, marketing, or point of sale material without the prior written approval of the other Party. In addition, DuPont and Environmental Defense agree to share with each other all public communications about the project

for each other's review prior to release; neither Party will unreasonably withhold permission to such reference. Each Party may communicate with its directors, shareholders, members, employees, and, for Environmental Defense, potential or existing funders, about the project, subject to any restrictions on confidential information.

10. Each of the Parties has the right to terminate the project at any time. In such event, notwithstanding the conditions of Paragraph 9, either Party is free to independently comment on the project and its outcomes, subject to the conditions of Paragraph 8⁷ and the Appendix. *LF JR*
11. As the project work proceeds, each Party may independently pursue its business and advocacy activities on environmental issues as it considers appropriate.
12. This letter of understanding shall become effective on the date of execution by the last executing Party.

Again, let me say that Environmental Defense looks forward to embarking on this project with DuPont. Please indicate your concurrence with our understanding by signing below and returning a copy to me. Do not hesitate to contact me if you have any questions about the project, whether now or as we proceed, or if this letter does not accurately reflect your understanding of our project.


Sincerely,



Gwen Ruta
Director, Corporate Partnerships

8/30/05
Date

Countersigned:



Linda Fisher
Vice President & Chief Sustainability Officer
DuPont

9/1/05
Date

Appendix

Additional Terms and Conditions Regarding Confidentiality

Pursuant to Paragraph 6 of the agreement, the receiving Party's obligation to maintain the confidentiality of information identified by the disclosing Party at the time of disclosure as confidential will not apply if such information: (i) is publicly known; (ii) is provided by a third party; or (iii) is discovered independently. The designation of information as confidential shall preferably be provided in written form; if provided in other than written form, the Parties agree to confirm in a written exchange the nature or classes of information that are to be held confidential within one week of the disclosure. Both Parties agree, for a period of three years from the time of designation of any information as confidential, to: (i) protect and prevent disclosures of the confidential information; (ii) exercise at a minimum the same care they would exercise to protect their own confidential information; and (iii) not use, reproduce, distribute, disclose or otherwise disseminate the confidential information except as authorized by the disclosing Party to perform the project. In no event shall either Party exercise less than a reasonable standard of care to keep confidential the confidential information.

This confidentiality obligation shall not apply to information that is required by law to be publicly disclosed, provided that either Party gives prompt notice of any such legal request so that the other Party may enter objections and/or defenses to such disclosure.

DuPont- Environmental Defense
Framework for Responsible Nanotechnology Standards
Project Description
August 30, 2005

Project Statement

Environmental Defense and DuPont are engaging in a partnership to develop a framework for the responsible development, production, use and disposal of nanoscale materials that identifies, manages and reduces potential risks across all lifecycle phases (hereinafter referred to as “the framework”). DuPont and Environmental Defense want to ensure that nanotechnology’s benefits are maximized while the potential risks are effectively assessed and managed.

Nanotechnology is the design and manipulation of materials at the atomic scale such that novel properties emerge. Governments and industry around the world are spending billions of dollars to develop and promote nanotechnology, yet there has been far less effort to understand and manage the potential environmental and health risks of this new technology. History has shown us that widely commercializing a new technology before appropriately identifying and managing its risks can result in serious adverse consequences to human health and the environment, as well as costly litigation, liability, and cleanup. Current regulations, designed for a world before nanotechnology, should be reassessed and changed as needed to account for the novel properties of nanomaterials. Business and government may need new approaches to make sure workers, consumers, the public and the environment are adequately protected.

We agree that it is in the best interests of industry, academia, the public, and the environment for companies to proactively develop, in advance of government regulations, a framework for responsible nanotechnology standards. The development and adoption of such a framework can ensure safe development and public acceptance, limit potential liabilities, and provide a practical model for reasonable government policy on nanotechnology safety. DuPont and Environmental Defense will apply their technical and policy expertise to develop a framework that can serve as a powerful and useful model for both industry and government.

Project Goals

- Develop a practical framework for the responsible development, production, use and disposal of nanoscale materials that identifies, manages and reduces potential risks across all lifecycle phases. This framework will define practices to:
 1. Identify potential hazards to human health and the environment of nanomaterials;
 2. Assess the potential for release of and exposure to such materials; and

3. Manage risks arising from potential exposures of nanoscale materials to workers, consumers, the general public, or the environment during production, use, or disposal.
- Demonstrate the application of the framework on one or more nanotechnology products or processes.
 - Revise as necessary and apply the framework to all of DuPont's development and uses of new nanotechnology products.
 - Promote the principles and processes of the framework so that it will be broadly adopted and used as appropriate by industry, public interest groups, academia and government.

Project Scope

We acknowledge that "nanotechnology" is a broad term that covers a wide range of applications. For the purposes of the framework, we will focus on engineered nanoscale materials that exhibit novel properties. (The team may further refine the scope and applicability of the framework by developing guidelines to differentiate nanotechnology products by type of material, type of application, or potential type of hazard or route of exposure.)

Project Components

The following are components that will be developed through the course of this project. DuPont and Environmental Defense will engage a broad range of stakeholders as we develop these components throughout the project.

Develop principles and processes: The framework will contain certain broad principles (e.g., new nanomaterials will be tested before a product is launched onto the market) as well as specific guidance on processes to implement those principles. These principles and processes will incorporate several elements, including:

- *Risk Identification* – determine what tests are appropriate at what stage of development and for what applications (e.g., nanoparticles used in dispersive applications may require more extensive risk data than those used in controlled applications)
- *Risk Management* – determine how nanomaterials will be handled at different stages (e.g., assume to be hazardous prior to full risk identification; after risks have been identified, establish appropriate manufacture, use and disposal guidelines)
- *Transparency and Accountability* – determine how internal and external stakeholders (e.g., customers, consumers, public, government) should be informed of risk identification and risk management decisions and results (e.g., what labeling and reporting is appropriate)

- *Feedback, Evaluation and Adaptability* – determine appropriate systems to track implementation and ensure efficacy of risk identification and risk management steps and to adjust risk management systems as new information is developed

We will work together to develop and articulate the broad principles and specific processes that will comprise the nanotechnology framework.

Demonstrate framework through product development and launch: To show that the framework can be practically implemented (and to identify any necessary improvements to the framework before publicizing it), the project team will pilot test the framework's processes with a suitable real product or process, (preferably, though not necessarily, a new product or process). The team will consider potential additional partners to increase the efficacy of the partnership. The team will track the costs and benefits of implementing the framework.

- *Identify product(s) for demonstration of framework* – The team will consider a range of potential products to pilot test the framework, considering the product's potential environmental benefits, its relevance to a full range of risk management issues, its stage of development, its importance to DuPont, and its use of nanomaterials that are commonly used in other products and applications.
- *Identify partner(s) to demonstrate framework, if needed* – The project team will consider whether the project could be executed more effectively by recruiting an additional partner. Other partners may be considered for their ability to contribute technical expertise, appropriate nanotechnology products, or perspective from another point in the nanotechnology value chain.
- *Track costs and estimate benefits* – The project will work to develop a framework that is as cost-effective as possible. The team will track the costs (in terms of testing costs, staff time, etc.) and the benefits (in terms of estimated risks avoided, positive publicity earned, etc.) of developing and implementing the framework.

Refine and apply framework across DuPont: Based on the team's experience in pilot testing the framework, the team may revise elements of the framework (e.g., to make it more practical, broadly applicable, protective, etc.). The purpose of this stage is to ensure that the framework can be broadly applied across a wide range of products and processes. The team will also consider how the framework can be applied to DuPont's existing nanotechnology products and processes. DuPont will then continue to refine and apply the framework across all of its new nanotechnology products and processes.

Disseminate principles and process: Upon successfully implementing the framework in the pilot test, DuPont and Environmental Defense will work to disseminate the principles and processes of the framework to other companies, industry associations, framework-setting organizations and governmental entities. The goal of the dissemination activities will be to communicate the efficacy and practicality of the framework and to promote it as a model to be adopted by other companies and/or by government. The team will promote the framework through a variety of routes (e.g., industry consortia and associations, frameworks organizations, regulatory channels, etc.).

The team will consider including in its dissemination efforts information on DuPont's experience in institutionalizing the framework into DuPont's existing product development and environmental safety and health processes.

Project Team

To execute the project, Environmental Defense and DuPont will form a working project team staffed by members of both organizations. The explicit endorsement of the project, its objectives, and its likely outcomes by both organizations' senior executives is critical to the team's success. Scott Walsh will have primary responsibility for representing Environmental Defense on the team, with support from Gwen Ruta, John Balbus, Richard Denison, Karen Florini and other Environmental Defense experts as needed. Terry Medley will have primary responsibility for representing DuPont on the team, with support from Krishna Doraiswamy, John Carberry, David Warheit, Keith Swain, Gary Whiting, David Gasper, John Gannon, Michelle Reardon and other DuPont experts as needed.

Proposed Project Timeline

The project team expects to develop, demonstrate and disseminate results from the framework for responsible nanotechnology over the course of three years. The team intends to develop the principles and process guidelines for the framework within the next nine months. Over a three-year period, depending on the timing requirements of the product and tests chosen to demonstrate the framework, the team expects to complete development of the framework, demonstration of the framework on selected applications and publication the full framework. The team will conduct ongoing communication and outreach activities as appropriate throughout the process and will develop communication materials jointly.