

Executive Order (12/18/06)
Establishing a Pollution Prevention Institute
To Promote Sustainable Economic Development in New York State

WHEREAS, Increasing quantities of hazardous wastes are being generated in the state, with the total waste generated having increased from 51 million tons in 1992 to an estimated 58 million tons in 2005 according to the NYS Department of Environmental Conservation;

WHEREAS, It is the policy of the state of New York "to reduce or eliminate the use of hazardous substances and the generation of such substances, pollution or waste at the source in order to conserve, improve and protect New York's environment and natural resources; and increase the economic competitiveness of New York businesses," pursuant to Article 28 of the Environmental Conservation Law (ECL); and to implement the hazardous waste management practices hierarchy which prioritizes the "reduction or elimination of hazardous wastes, to the maximum extent practical", pursuant to Article 27 of the ECL;

WHEREAS, The Commonwealth of Massachusetts established a pollution prevention policy and Toxic Use Reduction Institute that resulted in a forty two percent (42%) reduction in the use of hazardous substances and a sixty five percent (65%) reduction in the generation of hazardous waste (per unit of production from 1990 to 2004); and such Institute determined that these reductions resulted in a fourteen million dollar (\$14,000,000) overall cost savings for the entire state over a seven year period;

WHEREAS, The use of hazardous and radioactive chemicals have caused the contamination of the air, water and soil of New York State resulting in hundreds of water bodies failing to meet water quality standards, the contamination of drinking water supplies, fish and wildlife, and the creation of hundreds of polluted landfills and toxic sites; and such use poses risks to public health and the environment because of adverse effects such as carcinogenicity, birth defects and other reproductive problems, liver, kidney and other organ damage, impairment of the nervous and immune systems, and endocrine disruption;

WHEREAS, The adverse impacts on public health and the environment from the manufacture, use and disposal of hazardous and radioactive substances imposes costs on the state and, ultimately, society as a whole in the form of injury, disability and death; health care expenses; disposal, liability and cleanup costs; the waste of resources and raw materials; and a degraded natural environment;

WHEREAS, New York can promote a healthy business climate and vibrant economy through pollution prevention initiatives that improve business efficiency, support sustainable economic development, and advance the use of safe and sustainable products, services and technologies which will help to ensure a higher quality of life for present and future generations, will put New York businesses in an advantageous position to compete in the global marketplace, and will protect the state's precious and valuable natural resources;

NOW THEREFORE, I, Eliot Spitzer, Governor of the State of New York, by virtue of the authority vested in me by the Constitution and laws of the State of New York do hereby order:

It is the policy of the state of New York to promote the state goal to reduce the generation of hazardous and radioactive waste by utilizing pollution prevention activities that make manufacturing operations more sustainable for workers, the public, the environment and the economy.

It is further established that reducing the use of hazardous and radioactive substances (hereafter "toxic substances") is the preferred means for achieving compliance with this Order and any federal or state law or regulation pertaining to producing, using, releasing or disposing of toxic substances.

It is further established that it is the policy of New York State to take anticipatory action to prevent harm where credible evidence of a threat to human health or the environment exists from toxic substances. Therefore, the state shall prioritize reducing the use of toxic substances that are persistent in the environment, bioaccumulative, and highly toxic based on credible scientific information that the chemical is a carcinogen, neurotoxic or a reproductive toxicant.

And Furthermore,

There is hereby established a Pollution Prevention Institute and Green Chemistry Program, to be affiliated with one public or private New York State university or non-profit institution, or more as part of a consortium. A request for proposals shall be issued to select the host(s) for such Institute by July 1, 2007. The selected host(s) for such Institute shall have a demonstrated technical and scientific ability to perform the functions outlined in the Order, and the ability to partner with other institutions and state agencies. Such Institute shall be funded out of appropriations made to promote pollution prevention in New York State. The Commissioner of the Department of Environmental Conservation (DEC), in consultation with the Pollution Prevention and Environmental Compliance Coordinating Council (Council), shall be responsible for the request for proposal process, public comment period and final decision.

I. Definition of Pollution Prevention and Green Chemistry

Pollution prevention is defined pursuant to Section 28-0105 of the Environmental Conservation Law (ECL) and the activities outlined in Addendum A. Pollution prevention practices include the application of green chemistry which is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. Green chemistry includes the principles and activities outlined in Addendum A.

II. Pollution Prevention Institute and Green Chemistry Program

Subject to available funds, by July 1, 2007 the DEC, in consultation with the aforementioned Council and the Institute's Pollution Prevention Advisory Board, shall develop a request for proposals related to the establishment of a Pollution Prevention Institute with a Green Chemistry Program.

The mission of the Institute is to implement the policy of the state of New York as stated in this Order and Articles 28 and 27 (Title 1) of the ECL. The Institute shall be a multi-disciplinary center to promote pollution prevention and sustainable economic development through programs in research, development, demonstration, technology transfer, technical assistance, training, education, and information dissemination. The Green Chemistry Program will promote and coordinate green chemistry education, research, development, demonstration, and technology transfer activities.

The Institute shall submit to the Commissioner of DEC a set of operating guidelines including, but not limited to, the types of services, programs and priorities related to pollution prevention and green chemistry which it will offer. The Institute shall issue an annual report to the Governor and Legislature documenting its activities and the performance results of its programs, including environmental and health benefits and costs savings. The Institute shall establish cooperative arrangements to build a strong network of regional pollution prevention providers and offer trainings and technical assistance to municipal pollution prevention programs, Regional Technology

Development Centers/Manufacturing Extension Partnerships, Centers for Advanced Technology, academic environmental centers, Department of Environmental Conservation (DEC), Empire State Development (ESD), Environmental Facilities Corporation (EFC), New York State Energy Research and Development Authority (NYSERDA), Power Authority, and others as appropriate.

The Institute shall conduct the following activities.

- (A) Undertake research, development and the demonstration of innovative technologies, designs and practices that accomplish pollution prevention in a scientifically, environmentally sound and cost-effective manner, and research, develop and demonstrate the design and manufacture of sustainable product systems and policies. Such research may include but not be limited to: assessments of the impact of adopting such methods on the environment, public health and worker exposure; assessments of the cost-savings within affected businesses or industry sectors; investigating the environmental and health impacts of emerging technologies such as biotechnology and nanotechnology, and developing best management practices; and targeting sector research for trade associations which can assist many businesses in pollution prevention and sustainable practices.
- (B) Promote the use of technologies and pollution prevention practices that eliminate or reduce the use or generation of toxic substances during the design, manufacture and use of products and processes; and encourage the use of safer alternatives to promote sustainable economic development. Such promotion shall include demonstrating the applicability and effectiveness of alternative substances, technologies and practices in laboratory and field demonstration projects.
- (C) Establish a Technical Assistance Program for businesses to assist them in developing and implementing effective pollution prevention techniques and plans. A primary objective will be the development of comprehensive and high quality assessments, including documentation of identified problems, recommendations and estimated benefits for reducing toxic substance use, waste, energy and material usage. Such program shall include on-site assistance.
- (D) Provide education, information and outreach programs on pollution prevention, including the establishment of a clearinghouse of technical information, courses, seminars, conferences and other events, reports, guides and other publications, and other activities to provide information to businesses, pollution prevention providers and the general public.
- (E) Make recommendations to the Governor on an annual basis for Governor's Pollution Prevention Awards and Green Chemistry Awards, promoting excellence, innovation, economic development, and public health risk reduction by businesses and institutions.
- (F) Provide an annual assessment and recommendations to ESD in relation to awarding grants for pollution prevention research and development, and publicize the ESD pollution prevention grant program with businesses in the state.
- (G) Provide technical assistance and research to assist DEC in fulfilling its pollution prevention regulatory activities, as outlined below in Section IV.
- (H) By 2008, develop a Pollution Prevention Planner program including a training curriculum and requirements for examination and certification of interested individuals. The Institute shall ensure certified planners are qualified to assist businesses in the development and implementation of effective pollution prevention assessments, techniques and plans. It shall offer the program on a regular basis to the staff of the aforementioned pollution prevention provider institutions.
- (I) By 2008, develop and provide a curriculum and training for higher education students and faculty on pollution prevention and green chemistry.

III. Pollution Prevention Advisory Boards

There shall be a Pollution Prevention Advisory Board associated with the Institute consisting of three members appointed by the governor, two members nominated by the Senate Majority Leader,

two members nominated by the Speaker of the State Assembly, two members nominated by the Commissioner of DEC, two members nominated by the director of ESD, one member nominated by the Commissioner of Labor, one member nominated by the Commissioner of Health and one member nominated by the NYS Occupational Safety & Health Clinic Network. Members shall include pollution prevention and green chemistry experts and representatives of business, labor, academic, environmental and health organizations that support the goals of the Institute. The first Board meeting shall be held within three months of the effective date of this Order. The Board will advise and assist the Institute in carrying out its duties, annually evaluate the Institute's programs, including training and curriculum, and the adequacy of its budget, and submit an annual report to the Governor with any recommendations.

IV. Department of Environmental Conservation

By 2008, the DEC shall establish a statewide plan, including a targeted goal and timetable, to significantly reduce the use of toxic substances in the state, and shall provide recommendations to the Governor and Legislature on its implementation, including measurable performance tracking to meet the statewide goal. Such plan will assist the state in meeting the goals of this Order and Articles 28 and 27 (Title 1) of the ECL. It shall be developed in consultation with the Institute and the aforementioned Council and Advisory Board, and a public comment period and five public hearings will be held to gather public input.

The Institute shall assist the DEC with any research or technical support that would be beneficial to its implementation of the Hazardous Waste Reduction Plan Program and other pollution prevention programs. This shall include assisting the agency in monitoring and analyzing pollution prevention performance by businesses and industrial sectors in the state, and the resulting impacts in relation to cost-savings, toxic use reduction, waste reduction, and conservation of energy and natural resources. The DEC shall further assist in the implementation of this Order by reviewing and certifying the adequacy of the Institute's trainings and curriculum; by setting up a verification system for pollution prevention achievements, and by including pollution prevention in all of its core activities, such as technical assistance, permitting, inspections and rulemaking.

This Executive Order shall take effect on immediately.

Addendum A

Pollution prevention shall include but not be limited to the following techniques: (a) Input substitution to replace a toxic substance or raw material used in a production unit with a non-toxic or less toxic substance; (b) Product reformulation to substitute an end-product which is non-toxic or less toxic upon use, release or disposal; (c) Production unit redesign or modification to develop and use units of a different design; (d) Production unit modernization to upgrade or replace unit equipment and methods based on the same production unit; (e) Process changes to the manufacturing or product formulation process; (f) Improved operation and maintenance of production unit equipment and methods to modify or add to existing equipment or methods including, but not limited to, such techniques as improved housekeeping practices, system adjustments, inspections, or unit control equipment or methods; (g) Recycling, reuse, or extended use of toxic substances by using equipment; (h) Reduction in the presence of undesired toxic by-products; (i) Reduction, reuse or recycling of solid waste; and (j) Reduction of natural resources and energy consumption.

Green chemistry includes, but is not limited to, the following principles and activities: (a) Design chemical syntheses to prevent waste; (b) Design safer chemicals and products to be fully effective, yet have little or no toxicity; (c) Design less hazardous chemicals to use and generate substances with little or no toxicity to humans and the environment; (d) Use raw materials and feedstocks that are renewable rather than depleting; (e) Use catalysts, not stoichiometric reagents, to minimize waste; (f) Avoid chemical derivatives, if possible; (g) Design syntheses so that the final product contains the maximum proportion of the starting materials.; (h) Avoid using solvents, separation agents, or other auxiliary chemicals. If these chemicals are necessary, use innocuous chemicals; (i) Increase energy efficiency by running chemical reactions at ambient temperature and pressure whenever possible; (j) Design chemical products to break down to innocuous substances so that they do not accumulate in the environment; (k) Include in-process real-time monitoring and control during syntheses to minimize or eliminate the formation of byproducts; and (l) Design chemicals and their forms (solid, liquid, or gas) to minimize the potential for chemical accidents including explosions, fires, and releases to the environment.

Executive Order (12/18/06)
Promoting Safer Alternatives to Persistent, Bioaccumulative Toxic Chemicals (PBTs)

WHEREAS, Persistent, toxic chemicals, such as mercury, dioxin, poly brominated diphenyl ethers (PBDEs) and polychlorinated biphenyl (PCBs), are toxic in small amounts, remain in the environment for long periods of time, and build up in humans, fish and animals; and this group of pollutants known as Persistent Bioaccumulative Toxic chemicals (hereinafter "PBT chemicals") can pose risks to public health and the environment through their carcinogenic and endocrine disrupting effects, immune system impairment, neurotoxicity, birth defects, and reproductive dysfunction; and

WHEREAS, Persistent, Bioaccumulative Toxic chemicals are passed from one generation to another in the womb and through breast milk; have been linked to birth defects, reproductive failure, cancer, learning and behavioral problems in young children, and other health problems; and a growing body of scientific evidence points to chemical exposures as preventable risk factors in a number of chronic diseases, disabilities and premature deaths;

WHEREAS, PBT chemicals have polluted hundreds of water bodies in New York which fail to meet water quality standards, and the state has issued nearly 100 advisories for contamination of fish and waterfowl by PBT chemicals, and expended significant resources to address hundreds of drinking water supplies, landfills and toxic sites contaminated by PBT chemicals; and more than 90% of PBT chemicals are leaving factories in products, not in waste, and are found in a wide range of consumer and industrial products including paints, pesticides, solvents, inks, dyes, solder, etc.;

WHEREAS, It is the policy of the state of New York "to reduce or eliminate the use of hazardous substances and the generation of such substances, pollution or waste at the source in order to conserve, improve and protect New York's environment and natural resources; enhance the health, safety and welfare of its citizens; and increase the economic competitiveness of New York businesses," pursuant to Article 28 of the Environmental Conservation Law (ECL); and to address the Environmental Protection Agency's 1998 national PBT policy that urges states, localities and the federal government to reduce PBTs in waste by fifty percent (50%) by the year 2005;

WHEREAS, New York, a leader on environmental policy and a major trade partner with Europe, can maintain its competitiveness through innovation and leadership in the development of products and practices that protect public health and environmental quality; and development of safer alternatives to PBT chemicals has the potential to spur business growth, create jobs, improve public health, lower the costs of health care and special education, and protect the environment; and the production, use and disposal of consumer products containing PBT chemicals poses preventable risks of harm to human health and the environment in New York and elsewhere; and

WHEREAS, it is in the best interests of the people of New York to continue and expand state leadership in promoting sustainable economic development and environmental public health protection through the reduction and elimination of the use of and discharge of PBT chemicals within the next generation.

NOW THEREFORE, I, Eliot Spitzer, Governor of the State of New York, by virtue of the authority vested in me by the Constitution and laws of the State of New York do

Hereby establish it is the policy of the state of New York to protect the health of its residents and contribute to a healthy economy by actively promoting safer alternatives to PBT chemicals used and produced in New York, and reducing the generation of PBT chemical waste by utilizing pollution prevention activities.

It is further established that it is the policy of the state of New York to take anticipatory action to prevent harm where credible evidence of a threat to human health or the environment exists from toxic substances, and to actively promote the reduction of the use of PBT chemicals that are persistent in the environment, bioaccumulative, and highly toxic based on credible scientific information that the chemical is a carcinogen, neurotoxic or a reproductive toxicant, pursuant to the state's statutes and policies

I. Department of Environmental Conservation & Department of Health PBT Chemical Pollution Prevention Regulatory Actions

1) The Department of Environmental Conservation (DEC) and Department of Health (DOH) shall use all existing legal authority in current state law to ensure the protection of public health and the environment from potential damage caused by PBT chemicals used in consumer products and commercial use. The agencies shall work diligently and expeditiously to develop and implement policies and procedures to maximize their use of existing authority to obtain the objectives of this Order. The agencies shall evaluate the impact of proposed programs, policies and regulations to insure that from any changes: (a) the environment, and the health and safety of citizens and workers is improved; (b) job creation is encouraged and job loss is minimized; and (c) potentially impacted employees and consumers have opportunity for direct input into proposed programs, policies and regulations.

2) Not later than December 31 of each calendar year, the DEC shall submit an annual report to the Governor on the amount and type of PBT chemicals used and generated in the state, utilizing its existing regulatory powers and data provided through existing programs and permits.

3) The DEC shall use its existing programs and authorities to reduce the use of PBT chemicals and to reduce the generation of PBT chemical waste.

The Department shall consider, without limitation:

- a. enhancing the role of safer substitutes in hazardous waste reduction plans and permitting;
- b. identify regulation user segments which it considers to be priorities for achieving toxics use reduction with respect to PBT chemicals. If it concludes that significant opportunities for toxics use reduction and the use of safer substitutes exist, the Department shall make recommendations for such user segments; and
- c. identifying opportunities through control or abatement plans, and other guidance and regulatory programs.

The Department shall complete such review within one year of the date of this Executive Order and shall issue a report to the Governor and the Governor's Council outlining how the Department shall amend those programs or regulations, where feasible, so as to promote PBT chemicals reduction and the substitution of safer substitutes to achieve the goals of this Order. The Department shall hold public hearings and a public comment period to obtain public comment on its report.

4) The DEC, in consultation with the Department of Health (DOH), shall implement a public education campaign to alert consumers, businesses and local governments about the health threats associated with PBT chemicals and to help educate the public about safer alternatives.

II. Governor's Council for Safer Alternatives to PBT Chemicals & Statewide Plan

1) A Governor's Council for Safer Alternatives to PBT Chemicals will be established to work with the DEC and DOH to develop a statewide plan and report on reducing the use of PBT chemicals and transitioning to safer alternatives.

The Departments, in consultation with the Council, will develop a statewide report for the Governor that identifies actions, including legislation, which the state can take to reduce and eliminate threats posed by PBT chemicals, and to develop and promote safer substitutes.

Such proposal will include the following:

- (a) Recommendations for a comprehensive state PBT chemicals policy that requires safer substitutes to PBT chemicals in consumer goods and services, creates incentives to promote the use and development of safer alternatives, and requires the reduction of the use of PBT chemicals and the reduction of PBT chemical waste in New York so as to benefit public health, the environment and the economy;
- (b) Recommendations for consumer education, retailer education and training, supply chain information and public right-to-know in order to promote markets for safer alternatives;
- (c) Recommendations for submission to the Pollution Prevention Institute on research and development of safer alternatives to priority PBT chemicals in consumer products, including the possibility of developing bio-based plastics from New York-based agricultural and forest products.

The DEC, DOH and the Council shall submit an interim report to the Governor by December 2007 and a final report by April 2008. Each of these reports shall include recommendations, including proposed legislation, for PBT chemicals policy development and consumer education. The Departments and the Council will conduct a series of six public hearings and other public forums to involve the public in discussing the interim report, and hold a public comment period.

2) The additional duties of the Council are to: (a) Review plans for the DEC and DOH's implementation of this Executive Order and provide recommendations; (b) Propose additional programs, policies or regulatory changes to the DEC and DOH to promote effective implementation of this Order; (c) annually evaluate the adequacy of the Departments budgets to effectively implement this Order and submit an annual report to the Governor with any recommendations.

3) The Council shall consist of four members, including the Council Chairperson, appointed by the governor, three members nominated by the Senate Majority Leader, three members nominated by the Speaker of the State Assembly, three members nominated by the Commissioner of DEC, two members nominated by the director of the Pollution Prevention Institute, two members nominated by the Commissioner of Health, two members nominated by Empire State Development and two members nominated by the Commissioner of Labor. Members shall include representatives of business, unions, health, science, academic, environmental and health organizations that support the goals of the Council.

III. Pollution Prevention Institute Research and Development on Safer Alternatives

The promotion of safer alternatives to PBT chemicals can contribute greatly to the improvement of the New York's economy for consumers, firms and employees. The state of New York shall support and promote research and development of safer processes, products and chemicals through the policies and programs of agencies, and the Pollution Prevention Institute and the Green Chemistry Program, established pursuant to Executive Order #.

Based on available funds, the Institute shall conduct a national survey of safer alternatives for ten of the worst PBT chemicals found in common household products and workplaces in the state, utilizing existing government and institutional reports, programs and studies. The DEC, DOH and the Council shall recommend the priority chemicals. The Institute shall utilize existing reports from other states and regions that provide information on safer substitutes to PBT chemicals found in dry cleaning, cosmetics, building materials, toys and baby products, foam cushions, electronics, and other common household goods. The Institute will issue the PBT safer alternatives report to the Governor, DEC, DOH and the Council by October 2007. The Institute shall also provide technical assistance on request to the Departments and the Council.

This Executive Order shall take effect immediately.

Executive Order (12/18/06)
World Trade Center Exposures

Whereas, An estimated 45,000 to 90,000 workers and volunteers worked at Ground Zero in rescue, recovery and clean-up operations following the tragic attack on the World Trade Center September 11, 2001; and an additional thousands of workers and volunteers participated in the cleaning of offices, residences and public areas below Canal Street in Lower Manhattan; and,

Whereas, There have been numerous reports in the press of deaths, cancers and other illnesses among workers and volunteers who participated in the rescue, clean-up and recovery operations which have been attributed to the exposure to toxic dusts and fumes released following the collapse of the World Trade Center; and

Whereas, A recent study released by the World Trade Center Worker and Volunteer Medical Screening Program at Mt. Sinai found that nearly 60% of the 16,000 workers and volunteers who had participated its screening program were in need of medical treatment; and

Whereas, Preliminary data from the same program indicates that approximately the same percentage of workers were in need of mental health services as a result of their experiences participating the rescue and clean up operations at the World Trade Center; and,

Whereas, Many of the illnesses have developed several years subsequent to exposure preventing workers and volunteers from filing for workers compensation in New York State; and,

Whereas, There have been numerous reports of workers and volunteers whose claims have been time barred and rejected by the New York State Workers' Compensation Board; and,

Whereas, There are grave concerns that workers who participated in rescue, recovery and clean up activity following September 11th, 2001 may develop diseases resulting from their exposure to the toxic substances in the future and will not be eligible to file for Workers' Compensation benefits; and,

Whereas, In recognition of such circumstances New York State has enacted legislation providing an opportunity for all workers and volunteers who engaged in rescue, recovery and or clean up operations South of Canal and Pike Streets during the period of September 11, 2001 and September 12, 2002 to register with the New York State Workers' Compensation Board which would allow them to file claims for diseases related to their exposure to toxic substances as a result of collapse of the World Trade Center in cases where they were to develop illnesses in the future, or if their cases have been dismissed because they were not timely according to the Workers' Compensation Law; and

Whereas, Workers and volunteers have until August 14th 2007 to register with the New York State Workers' Compensation Board and those who fail to do so will be ineligible file claims in the future; and

Therefore be it resolved, that the Governor of the State of New York directs the New York State Department of Health and Department of Labor to engage in an outreach campaign to inform affected populations throughout the state of New York and the country of this important program and encourage eligible workers and volunteers to file by the August 14th deadline and,

Be It Further Resolved that a notice of this change in the law shall be inserted into the paycheck of all state employees, where possible;

Be It Further Resolved that such departments work cooperatively with programs being run by organizations and other public agencies which have initiated campaigns to inform eligible workers about the need to register.