BREAST CANCER FUND

PREVENTION STARTS HERE.

June 14, 2007

Maureen Gorsen
Director, Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95814

Dear Director Gorsen:

On behalf of the Breast Cancer Fund and its 17,000 California members, thank you for your leadership on the development of the Green Chemistry Initiative. As you have stated, California needs to adopt a new approach to toxics found in the environment, in our consumer products and in our bodies. We look forward to working with you in the coming year to create policies that will result in healthier communities, safer workplaces, cleaner products and greener economy.

The Breast Cancer Fund is a national organization committed to identifying and eliminating the environmental and other preventable causes of breast cancer. We work with advocates and decision-makers to encourage research and policy initiatives that seek to better understand, and respond to, harmful pollutants that contribute to increased rates of breast cancer and other diseases.

Breast cancer rates have been climbing steadily in the United States since the 1940s. A woman's lifetime risk of breast cancer has nearly tripled during the past four decades but only 10% of all cases can be attributed to a genetic predisposition and as many as half of all cases occur in women who have no known risk factors for the disease. Compelling scientific evidence points to some of the over 85,000 synthetic chemicals in use today as contributing to the development of breast cancer.

Chemical pollution of our air, water, workplaces, and communities is a mounting health and environmental crisis in California. We are exposed to chemicals through the food we eat, the air we breathe, and the water we drink. We are also exposed to hundreds of chemicals in everyday products we use, including paints and varnishes, glues, cosmetics, clothes dry-cleaned with solvents, plastic food containers, children's toys, and home and garden pesticides to name a few.

It is also vital that we examine the use of pesticides in California. Although pesticides may be regulated differently from industrial chemicals, our bodies do not recognize this separation. It is just as important to ensure that pest control methods are safe for our health and the environment as it is to ensure safety for industrial chemicals.

Green Chemistry is an important tool in ensuring that the products we use do not have unintended consequences to our health or the environment. We look forward to working with you in the coming year to create policies that will result in healthier communities, safer workplaces, cleaner products and greener economy. At this initial stage, we are happy to provide you and your staff with some broad themes and specific policy suggestions that may help focus this initiative:

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1. California must address the need for more information on chemicals.

Of the more than 85,000 chemicals in commerce, only a small percentage of them have ever been screened for even one negative health effect, such as cancer, reproductive toxicity, developmental toxicity, or endocrine disruption. Among the approximately 15,000 tested, few have been studied enough to correctly estimate potential risks from exposure. In addition to the lack of long term health information on chemicals, we also have no information about how chemicals are used in every day consumer products or in manufacturing processes. Programs at the federal level that are designed to get this information are voluntary and only ask for minimal health information.

The market is not providing the necessary information and tools for businesses to make good decisions about the use of chemicals that reflect their values. Many major businesses in California are trying to clean up their chemical supply chains but are stalled due to the lack of health and safety data available and the lack of infrastructure for producing safer chemicals.

Some policy suggestions that may address this need for more information could include:

- First and foremost, California needs to acknowledge that the current methods for conducting risk assessments on chemicals is scientifically outdated and needs to be replaced with a more modern approach. Two decades of research on laboratory animals, wildlife and cell behavior have shown the inadequacy of the long-held belief that "the dose makes the poison." Scientists now know that the timing, duration and pattern of exposure are as important (and sometimes more important) than the dose. In addition current risk assessment process does not address cumulative exposures, synergistic effects that chemicals can have on each other and low dose toxicity. Testing chemicals one at a time and using the standard adult as a measuring stick for gauging toxicity is an outdated approach that does not reflect the reality of chemical impact on human health. We need to create a process for chemical assessment that acknowledges new research and is protective of the most vulnerable among us.
- Require chemicals manufacturers to report information about the long term health effects of chemicals in use by 2016. This information would include initial screening level data as well as information about a chemicals ability to cause long term health problems such as cancer, birth defects, respiratory harm, neurological effects, endocrine disruption, developmental toxicity and immunotoxicity.
- In order to make sure that this information is standardized, the state should invest in new testing methods since so many of the current testing methods are out of date or, in some cases, do not exist.
- In requiring information, it is critical to require real world information about how chemicals interact with each other. For example, recent studies have shown that phthalates, when used in combination, produce more toxic effects than if only one phthalate were used. California's biomonitoring program would serve as an excellent place to start this important research since it will reveal which chemicals are found in the bodies of Californians and at what concentrations.
- Any new information on chemicals should include the possible effects a chemical can have on developing fetuses. Since we know that chemicals are finding their way past the placental barrier and into the womb, it is essential to know how chemicals are affecting fetuses and how early exposure can trigger later life health effects such as breast cancer and prostate cancer.
- Expand the amount and type of information available about chemicals to which the public and workers may be exposed, including mandatory labeling indicating the presences of chemicals that may be hazardous and public access to safety and health data on these chemicals. If health data is unavailable, mandatory labeling indicating the presence of chemicals that have not been tested for their impact on human health.

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- As important as health information is about chemicals, the picture will be incomplete without knowing which chemicals are in what products and manufacturing processes. Californians have a right to know which chemicals are found their consumer products, including plastic containers, household cleaners, cosmetics, furniture and electronic equipment. When manufacturers are forced to disclose the chemicals that are used to manufacture these products, local governments will know how best to deal with these products at the end of life and consumers will start making better choices.

2. Remove known chemical hazards from the market immediately.

Just because we don't have complete information on all chemicals doesn't mean that there isn't enough information on some chemicals to take action. Known carcinogens, reproductive-toxins, persistent bioaccumulative and toxic chemicals (PBTs) should no longer be allowed in consumer products, in any amount.

Specific policy recommendations include:

- Using Proposition 65 as a starting point for eliminating known hazards from the market. California is fortunate in that it already has a list of chemicals known to be hazardous. Companies should be prohibited from distributing products in California that contain these chemicals.
- Silent Spring and Harvard University just released a list of over 200 breast carcinogens. These chemicals have no place in consumer products.
- Prioritize protection of the most vulnerable populations and resources by requiring chemicals that are shown to have adverse affects on developing fetuses be phased out from use in California.
- Incorporate environmental justice into decision making. This involves considering the cumulative impacts on communities that bear a disproportionate burden from pollution and environmental degradation as well as exposures from low paying, chemical intensive jobs when making decisions about chemical use, management, and disposal. It also includes proactively reaching out to, and including members of these communities in the development of the Green Chemistry Initiative and the actions and decisions that come out of the program.
- Giving tax incentives or other incentives to locate green businesses in traditionally disproportionately impacted communities. Working closely with fenceline communities will help the department identify these communities. These incentives would be contingent on hiring from those communities as well.
- Provide incentives to chemical companies to develop safer chemicals that meet all 12 Principles of Green Chemistry as outlined on DTSC's website and have been adequately evaluated for toxicity.

3. Implementing Green Chemistry that will benefit the economy and public health

Perhaps the most striking benefit of green chemistry is the economic advantages it can create for California. Its development and implementation will allow our current industries to compete and even take the lead in a global marketplace that is experiencing more and more regulation of toxic chemicals. However, we also believe that by investing in and encouraging green chemistry initiatives in the state, both private and public, we can create economic opportunities for California in much the same way as we have done through our leadership in high tech and even stem cell research—but in an environmentally sound way.

As the public demand for safer products grows, it is inevitable that companies may succumb to the temptation of "green-washing" their products—marketing their chemicals as safer when, in fact, the products aren't as environmentally sound as they should be. The Green Chemistry Initiative and the

recommendations that flow from the work over the next year should make every effort to prevent this temptation.

Specific policies that could address the need for green chemistry innovation could include:

- Creating a green chemistry program at the University of California. This program's mandate would include:
    - Product redesign using the 12 Principles of Green Chemistry
    - Training undergraduates and graduates in green chemistry
    - Establishing Chairs for Green Chemistry and curriculum or majors in Green Chemistry.
    - Retraining of current chemists in their understanding of green chemistry
    - Creation of safe alternatives for currently toxic materials and processes
    - Serve as an intermediary that connects green chemists and product designers with manufacturers that want to ensure their products are more sustainable
- Reframe the curriculum of undergraduate and graduate chemistry students so that they have an understanding of toxicology, human susceptibility to environmental contaminants, ecology and environmental science. By training the next generation of chemists to consider not only the functionality of a chemical but also its toxicological properties and environmental fate, we will truly be laying the groundwork for more sustainable products in the future.
- Encourage safer products through the state's procurement policy.
- Provide incentives to green businesses that make cradle-to-cradle products and those that use chemicals that do not harm human health or the environment.
- Create an intermediary that will serve to match venture capital with green businesses and entrepreneurs.

Thank you again for your leadership on this critical issue. We look forward to working with you and your staff in the coming year on this important initiative.

Very truly yours,

Jeanne Rizzo, R.N
Executive Director

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