Developing Environmentally Preferable Products

a Project XL proposal submitted by

Health and Environment Laboratories
Eastman Kodak Company
Rochester, NY

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I. Introduction

A. Description of Facility/Community/Geographic Area

Eastman Kodak Company (Kodak) is the world's leader in imaging, and a manufacturer of imaging systems (cameras, scanners) and media (film, photographic paper, photographic chemicals). Kodak employs 46,300 people in the US and has manufacturing facilities in Rochester, NY, Windsor, CO, Peabody, MA, and White City, OR. These facilities are situated in both urban and suburban environments. As a leader in new technology development in the imaging industry, Kodak registers many new chemical substances with the EPA each year. Once approved, these substances may be used in one or several of the company's facilities, and it is these substances that allow the company to develop and improve the products it sells.

The Health and Environment Laboratories (HAEL) is a central or corporate facility which evaluates materials and equipment that are involved in manufacturing processes or are being considered for use in new products. Functions carried out by HAEL include toxicology, environmental, and safety testing; risk assessment; risk communication; and risk management. HAEL has been in continuous operation since 1936 making it one of the first facilities of its kind in the USA. Approximately 100 people are employed in HAEL, which is located at 1100 Ridgeway Avenue, Rochester, NY. The facility is located on the edge of a large industrial park (Kodak Park). The surrounding buildings are commercial enterprises and there are no sensitive natural resource areas in the general area of the HAEL facility. The staff participates in local outreach activities including environmental awareness and cooperative education programs with local high schools and is represented on the advisory board of the outreach program sponsored by the NIEHS-funded environmental sciences program at the University of Rochester. In addition, an active neighborhood information center is in place at the Kodak Park site.

Kodak has published a series of Global Performance Expectations on several matters key to the company's success. The expectation summary for Worldwide Health, Safety, and Environmental Responsibility reads as follows: Kodak's health, safety and environmental (HSE) vision is to be recognized as a world-class company, and the leading imaging company, in protecting the quality of the environment and the health and safety of our employees, customers and the communities in which we operate.

Kodak's environmental management system has been registered as ISO 14001 compliant, and the system places significant emphasis on the benefits of pollution prevention in new product design. This environmental management system has generated considerable environmental benefits to the company and its stakeholders, and these benefits have resulted in several awards for environmental performance, including the World Environment Center 1999 Gold Medal. Kodak's worldwide manufacturing sites are or are in the process of being registered to ISO 14001

The development of environmentally preferable products is consistent with Kodak's vision of producing innovative new products for imaging while protecting the quality of the environment, and it flows from considerable previous interaction with the EPA in a partnership to evaluate and publicize the Pollution Prevention (P2) Assessment Framework.

B. Contact Information

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II. Project Description

A. Summary of Project

The P2 Framework is a series of computer programs and processes that EPA has developed to evaluate the health and environmental impact of chemicals manufactured or imported into the USA.

Use of the P2 Framework can help Kodak and other companies identify and develop products and processes that can be sustained both environmentally and economically. Applying the P2 Framework to Kodak's operations helps develop environmentally preferable products, while saving the company considerable time and money. Kodak believes many other companies can develop environmentally preferable products by applying OPPT's P2 Framework, especially at the R&D stage of product development.

This proposal involves the implementation of the P2 Framework early in the product development cycle rather than at the end of the product development cycle during the pre-manufacture notice (PMN) submission process as is currently the situation. In so doing, Kodak will submit new chemicals for clearance that are on average less toxic than chemicals that would emerge from a product development cycle with no assessment feature. The submitted chemicals will also be more completely assessed for health and environmental concerns. Kodak proposes to then manufacture for commercial purposes PMN chemicals in 45 days as opposed to the current 90 day waiting period.

Kodak also proposes a series of innovative actions to help show other stakeholders how the P2

Framework can help develop products that are sustainable both environmentally and economically, while saving companies significant resources. Kodak's XL proposal will include three separate and independent initiatives beyond its own use of the P2 Framework. The first initiative will address the scientific community, the second initiative will outreach to the business community, and the third initiative is designed to communicate the benefits of the P2 framework to the highest levels of management within the stakeholder community.

B. Specific Project Elements

1. Implementation of the P2 Assessment Framework: In this phase, Kodak will incorporate the P2 Assessment Framework as part of its product development cycle, so that information on health and environmental effects derived from the P2 Framework is considered in product design. Kodak will also provide to EPA computer output of fate and effects predictions from the P2 Framework in its PMN submissions of new chemicals under TSCA.

2. Outreach to Technical Audience: Under this component of the XL Proposal, Kodak will communicate with, reach out to, and work with scientific and technical staff from a wide variety of chemical companies and stakeholders. The purpose of this outreach is to show chemical companies how the P2 Framework can help scientists gain access to chemical-specific risk related data and information previously unavailable. Kodak will demonstrate how these new data, generated by applying the P2 Framework, helps companies differentiate among otherwise equivalent chemical choices, based on human health and environmental hazard/risk. Kodak will conduct a scientist-to-scientist dialogue showing how the P2 Framework helps identify environmentally preferable products. Kodak will highlight how the P2 Framework can identify environmentally sustainable products, especially at the R&D stage, when the cost of substitution is minimal.

Kodak's will be involved in encouraging other companies and other industry sectors to apply the P2 Framework in product development efforts. Kodak has and will continue to be a partner with the EPA in communicating the benefits of the P2 Framework to other companies and other industry sectors. Kodak's efforts are intended to increase awareness among various industry sectors regarding pollution prevention and risk reduction benefits associated with application of the P2 Framework in product and process development, existing product reformulation efforts, among other applications. Kodak has made and will continue to make efforts to make stakeholders aware of the P2 Framework and to encourage companies to apply the P2 Framework in the identification of environmentally preferable products and processes. The following examples are illustrative and are not intended to be a comprehensive list of Kodak's contributions to outreach regarding the P2 Framework.

> Living With TSCA: Kodak gave a presentation on the use and application of the P2 Framework at the Living With TSCA Conference. Living With TSCA is the premier forum for Industry-EPA dialogue regarding key issues associated with industrial chemicals under TSCA. The conference is sponsored by EPA and major trade

associations associated with industrial chemicals. The conference is a unique opportunity to encourage a broad variety of companies, from a variety of industry sectors, to apply the P2 Framework in product development efforts.

Globe 98: Kodak presented a paper on the P2 Framework and discussed risk reduction opportunities associated with application of the Framework at GLOBE 98. GLOBE is a bi-annual international conference focused on pollution prevention and risk reduction issues. The GLOBE conference is an excellent forum for informing the international scientific and business community regarding the P2 benefits afforded by the P2 Framework.

QSAR 98: Kodak presented a paper at QSAR 98, the paper describes the P2 benefits of the P2 Framework and discusses the optimal points in the product development cycle for application of the Framework toward P2 outcomes. The QSAR conference series is a prime forum for information sharing relating to advances in the use and application of structure activity relationships, such as those employed in the P2 Framework. The paper has been submitted for publication.

National Workshops: Kodak presented the Keynote Address and actively participated in several P2 Framework National Workshops. Among other issues, Kodak described the application of the P2 Framework in risk screening, demonstrated specific pollution prevention and risk reduction outcomes resulting from use of the P2 Framework, among other issues. Industry sectors participating in the workshops include, among other:

- machine tooling
- consumer products
- pharmaceuticals
- electronics
- dyes and pigments
- fabric finishing agents
- pulp and paper
- industrial chemicals
- automotive supply
- industrial laundry products
- specialty chemicals
- automotive fuel additives
- waste management
- microprocessors
- military applications
- synthetic rubber
- plastics
- paints and coatings
- photochemicals
- aerospace
- mining

Supporting State P2 Programs:

Kodak presented a joint paper with the EPA on P2 Technology Transfer at the 1997 Waste Watch Conference in Woods Hole, MA. This conference is sponsored by the EPA, state P2 programs, and public interest groups interested in promoting P2 at the state and local community level. The presentation focused on how states could become involved in promoting design for the environment activities through P2 Technology Transfer.

Kodak gave a paper at the 12th Annual Pollution Prevention Conference sponsored by the New York State Department of Environmental Conservation. Kodak's paper

discussed the risk reduction benefits afforded by the P2 Framework in product development efforts.

3. Outreach to Business Audience: In this phase of Kodak's XL Proposal, the company will demonstrate to the larger business community how the P2 Framework translates to significant business benefits and improves the bottom line, while helping develop environmentally preferable products. Approaching the business community will increase awareness of the environmental benefits of applying the P2 Framework and will stimulate greater interest in and use of the P2 Framework toward sustainable P2 outcomes.

Kodak intends to act as a champion for the P2 Framework and advocate use of the P2 Framework among its industry colleagues. The technical papers, seminars, and workshops discussed above have been, and will continue to be, an excellent forum for advocating use of the P2 Framework. Kodak has and continues to champion the P2 Framework in other highly productive ways. As an example, Kodak issued a press release describing Kodak's use and application of the P2 Framework in new chemical development, existing chemical reformulation efforts, and in waste prevention efforts. The press release was a call to others in the industry to become knowledgeable about the P2 Framework and the substantive benefits of incorporating the P2 Framework into development processes for new products. In our press release, we pointed to demonstrable risk reduction and economic benefits associated with use of the P2 Framework. The press release indicated:

- The P2 Framework "enabled us to reformulate five photochemicals under development, and, in doing so, to improve their environmental performance significantly."
- "We saved Kodak tens of thousands of dollars in development costs."
- "We found that the (P2 Framework) method is totally transferable."
- "...(The P2 Framework) method would help minimize the generation of wastes which typically result form lengthy chemical-development programs."

As part of this Project XL Proposal, Kodak in collaboration with EPA, will conduct a rigorous Environmental Cost Accounting Study to quantify the business and economic benefits accrued through use of the P2 Framework. The study will clearly describe a variety of benefits including reduced product development costs, reduced liability, reduced time to market, etc. The study will help others, in industry sectors other than photochemicals, understand how they can benefit economically by application of the P2 Framework. Demonstrating how the P2 Framework helps the bottom line, e.g., reduces cost and increases competitiveness, is an outstanding mechanism to champion the P2 Framework among industry colleagues.

We expect that use of the P2 Framework will change business practices, resulting in pollution prevention outcomes. The P2 Framework allows companies to improve the environmental performance (i.e., lower health hazard, lower environmental hazard, lower exposure potential) of products, reduce costs, decrease potential liability, and improve market share, resulting in a significant competitive advantage. Companies can improve the environmental performance of their products by using the P2 Framework to pre-screen their product development options. Pre-screening allows companies to evaluate all viable candidates and select products with optimal environmental performance within given product performance criteria.

Product development is a very costly enterprise and testing takes time. If health and safety data are not available early-on in the development process, companies may expend considerable resources on a product alternative that must be abandoned when health and safety data become available. The P2 Framework affords a reliable, inexpensive, and rapid way of evaluating product alternatives before product development begins. By screening-out potentially hazardous materials early, companies greatly increases the probability that product development efforts will proceed efficiently, yielding an environmentally preferable product at significantly reduced cost.

Using the P2 Framework helps companies understand potential risk-related issues and helps anticipate data and information the EPA may require during the review of their products. Anticipating EPA concerns allows companies to engineer environmentally preferable products and to generate needed data in a timely manner. Anticipating and addressing EPA concerns optimizes the regulatory review and greatly decreases the probability of adverse regulatory action. This in turn allows companies to get to market as soon as possible, resulting in increased market share.

In our seminars, workshops, news releases, and scientific and technical publications, we clearly make the case that the P2 Framework reduces costs, improves environmental performance, and helps improve market share. Our audiences recognize that these factors translate to a competitive advantage for those who use the P2 Framework. A wide variety of industries are now beginning to use the P2 Framework as a best business practice. This in turn changes business practices resulting in demonstrable pollution prevention outcomes.

4. Outreach to Senior Management Audience: In addition to outreach to the scientific community and to those responsible for business centers, Kodak will work with EPA to develop and implement outreach activities designed to inform senior managers of the environmental benefits afforded by the P2 Framework. This effort will target industry leaders and focus on management and organizations issues that help drive development of environmentally preferable products and processes.

Kodak will take a leadership role and participate in a management study that seeks to understand the challenges of integrating pollution prevention into business practices. The case study approach will be used to highlight:

- What approaches are currently being used by industry leaders to weigh relative risk in establishing P2 objectives.

- What organization factors promote or impede integrating P2 considerations into business practices. What organizational practices, structures, linkages and incentives promote attention to risk in "leader" organizations.

- What external influences promote or impede integrating P2 into decision making.

The Bloustein School of Planning and Public Policy at Rutgers University will prepare the report with the assistance of Kodak.

III. Project XL Criteria

A. Superior Environmental Performance

Each year approximately 1,500 new chemicals are commercialized in the United States under the Toxic Substances Control Act (TSCA). These chemicals are, in general, developed to optimize product performance and often very little health or environmental data exist (because they are new substances). Many of these substances must be evaluated by the EPA in 90 days (PMN submissions), as required by TSCA. Chemicals selected for commercialization based on performance features only will have varying degrees of environmental risk.

An inexpensive system of assessing risk early in the product development process, where environmental data are very limited, allows health and environmental performance to be factored into the product design. By sharing expertise and success stories of using the P2 Assessment Framework, Kodak promotes "green chemical" selection in both its commercialization efforts and those of other companies.

As previously described for this XL Project, Kodak commits to:

1) application of the P2 Framework for Kodak's PMN submissions,

2) communicating with, reaching out to, and working with scientific and technical staff from a variety of chemical companies and stakeholders, to support their implementation of the P2 Framework,

3) reaching out to the business audience to promote the use of the P2 Framework as a best business practice, and

4) reaching out to the senior management audiences to help them understand what management structure will aid the implementation of the P2 Framework in their companies.

Success in the first component of the commitment, incorporate the P2 Framework as part of our product development program, will be clearly evident in each of Kodak's PMN submissions. As stated above, each Kodak PMN submission will include the results of our application of the P2 Framework to the PMN submission. Successful completion of item #2, communicate with, reach out to, and work with scientific and technical staff from a variety of chemical companies and stakeholders, has been demonstrated by the numerous ongoing and completed outreach activities. For example, our technical outreach efforts discussed above (e.g., The Living With TSCA Conference, GLOBE 98, QSAR 98 and subsequent publication in the technical literature, Kodak's participation at National Workshops, and the12th Annual Pollution Prevention Conference) clearly reflect successful accomplishment of item #2. Kodak will work with EPA to identify additional opportunities to outreach to technical and scientific audiences explaining the value of using the P2 Framework.

Successful completion of item #3, reach out to the business audience, will be evident in completion of the Environmental Cost Accounting Study discussed above. This study will be completed within six months of approval of Kodak's XL Proposal.

Successful completion of item #4, outreach to the senior management audience, will be evident in completion of the management study to be conducted with the support of the Bloustein School of Planning and Public Policy at Rutgers University. This study is discussed in greater detail above. The Kodak portion of this study will be completed within six months of approval of Kodak's XL Proposal.

Under TSCA, companies need to provide available health and environmental data, but further analysis of the data is not required. The P2 Framework provides a mechanism to promote data analysis beyond what is currently available by using physical-chemical properties and chemical structure to predict environmental fate and effects as well as other information elements needed to assess the hazardous properties of chemicals. Current use of the P2 Framework by the EPA is limited to materials which companies have said they intend to manufacture. Current use of the P2 Framework is at the end-of-the-pipe for chemical and product development.

This XL Project seeks to move the evaluation process upstream in the product development process to a point where there are frequently multiple materials which could eventually become final products. In moving upstream with the Framework, the information supplied by using the P2 Framework can be used to select less hazardous chemicals for use in final products and can be used to identify and avoid the generation of hazardous waste. When the P2 Framework-derived information is provided with a PMN, it reduces the amount of work the Agency must do to assess the new chemical for clearance.

The P2 Framework can be used at other times outside the product development cycle whenever alternatives for raw materials, manufacturing processes or chemical wastes require assessment for hazardous properties. In using the P2 Framework as recommended by the XL Project, the P2 Framework becomes a tool for green chemistry programs, source reduction programs, and other pollution prevention initiatives.

B. Flexibility and Other Benefits

If this proposal is implemented, Kodak will gain the ability to manufacture or import new chemicals soon after the regulatory decision is made, and eliminate a portion of the waiting period during which Kodak cannot manufacture product, even though no further evaluation by the EPA is planned.

The issue of the timing between the point at which the EPA has determined a chemical requires no further review and when a manufacturer can commence production is a fundamental issue of considerable importance, not just to Kodak, but to all in the industry. A casual observer might assume that going to manufacture in 45 days would allow Kodak an earlier opportunity to market our products and would help maintain market share. While this is indeed true, the real benefits of early manufacture relate to Kodak's ability to innovate.

In order to maintain leadership in the industry Kodak **must** anticipate customers needs, identify trends in the market place and, above all, strive to be innovative and creative. Innovation and advancements come as a result of iterative improvements to our products and services. While we hope to achieve great break-throughs, these are the exception -- not the rule. Innovation is a continuous process. Kodak typically identifies a number of new chemical alternatives that hold the promise of improving the utility or effectiveness of our products. The challenge is to bring these improvements to the market place quickly to test and evaluate the new product, and to use this experience to identify new opportunities for innovation or improvement. Innovation is not a one-time event, it is a continuous process that must go on if we are to maintain leadership in the industry.

Submitting a Premanufacture Notice (PMN) to EPA is a fundamental part of the innovation process. While Kodak clearly sees the value of EPA's review, the 90 day PMN clock has the effect of temporarily halting the continuous process of improvement. We cannot determine if our innovations have practical application until we have the opportunity to test and evaluate these innovations in the market place. We START the process of innovation and STOP for the 90 day PMN review, innovation and improvements STARTS anew and STOPS for PMN review once again. A decrease in the PMN review period from 90 to 45 days has the effect of reducing the START - STOP -START - STOP impact on innovation. Reducing the review time will facilitate innovation, reduce down-time and help bring new products and process to market in a more efficient manner.

The EPA gains through the completion of this XL Project by having a more effective P2 Framework. As explained above, currently the P2 Framework is applied only at the end of the product development cycle when opportunities for companies to alter the design of a new product are limited. By encouraging the use of the P2 Framework in early stages of product development when changes can more easily be made to improve the environmental performance of a product, the EPA is moving away from end-of-pipe processes for product development towards true source reduction of hazardous materials and pollution prevention. In doing so, the EPA is also meeting its goals around fostering sustainable development.

The public and the environment gain from this XL Project because the P2 Framework fosters the development of new, cleaner, greener product development processes. As a result, manufacturing processes and waste handling processes operate at higher levels of environmental performance.

C. Stakeholder Involvement

The commercialization of new chemicals is not a site-limited action, therefore, there is no discreet stakeholder community affected by this proposal. Stakeholders at national manufacturing sites will not be affected, because the proposed flexibility removes a waiting period during which there is no agency evaluation, but does not affect the outcome of the EPA assessment. Part of this proposal involves the interaction with several business and technical stakeholders thus directly involving other industry groups in this project. In addition, Kodak in Rochester will keep its neighbors informed of pollution prevention activities through its active Kodak Park Community Advisory Council.

All of the technical efforts associated with this XL Project will occur at Kodak's Health and Environment Laboratories which is located adjacent to Kodak Park in Rochester, NY. Kodak believes being a good corporate neighbor is fundamental to successful product stewardship and effective community relationships. Kodak has a robust and highly effective community outreach effort including a Kodak Park Community Advisory Council with a clearly articulated mission statement:

> "The Kodak Park Community Advisory Council is the key forum instrumental in improving the exchange of information between Kodak Park and the community, reflecting constituents' present and future interests, so that Kodak Park operates in a way that is responsible to the needs of the community"

Kodak will use the Kodak Park Community Advisory Council to involve stakeholder groups such as citizens and others interested in the development of the XL Proposal.

Community Advisory Council Members include:

- Koda-Vista Neighborhood Association

- Maplewood Neighborhood Association
- Irondequoit PTA
- League of Women Voters
- City of Rochester
- Aquinas Institute
- Rochester Institute of Technology
- Town of Irondequoit
- Neighbors Building Neighborhoods
- School 41, Rochester City School District
- Neighborhood Leaders
- Monroe County Division of Pure Waters
- Seneca Park Zoo
- Town of Greece
- Center for Environmental Information
- Greece Central School District

In addition to the Kodak Park Community Advisory Council, Kodak will actively solicit participation by commentors. Under XL "commentors" are stakeholders who are interested in an XL project but are not able to commit the time and resources necessary to be members of the organized stakeholder group. Kodak has a bi-monthly publication entitled "Update: A Newsletter to Our Neighbors Near Kodak Park." This newsletter covers a wide variety of issues including our neighbors perceptions of Kodak's environmental performance, a recent copy of the "Update" is attached, FYI. The "Update" will be used to notify the community about the Kodak XL initiative and to solicit participation by "commentors."

In addition to stakeholder participation and outreach through the Community Advisory Council and the "Update," Kodak has established a Health, Safety and Environment web site at: http://www.kodak.com/go/hse. Kodak will include information on the web site about our XL Proposal, as well as other information that may be developed in association with the EPA concerning the Kodak XL Initiative. This will be an excellent opportunity to inform local, national and international audiences about our XL initiative, to solicit comments and suggestions, etc.

Kodak has already begun a dialogue with the State of New York and will solicit comments from our state colleagues as well. Our dialogue with the State began with our participation at: "Celebrating Innovations and Accomplishments" The 12th Annual Pollution Prevention Conference, held in Rochester, August 24-26, 1999. Kodak was a sponsor and an active participant in this conference organized by the New York State Department of Environmental Conservation. In addition to sponsoring the conference, Kodak presented a paper on the P2 Framework, discussed how the Framework helps identify P2 opportunities, participated in a demonstration of the P2 Framework software, and encouraged others to support use of the P2 Framework. The meeting was very successful and provided an excellent forum for discussing the P2 Framework with State officials as well as a variety of participating industry sectors.

E. Transferability

The early assessment of chemicals to prevent pollution is easily transferred to other industries. The purpose of the public outreach elements of this proposal is to enable transfer of the P2 Framework and a pollution prevention philosophy.

The P2 Framework is a public/private partnership that results in demonstrable P2 outcomes. The public sector (EPA) provides state-of-the-art computerized risk-screening technologies and the private sector (Kodak and other companies/industries) applies these technologies in innovation ways that: a) yield safer new chemicals, b) stimulate reformulation of existing products, and c) reduce generation of wastes.

The premise of the P2 Framework is pollution prevention through technology transfer. Kodak's entire focus in it's XL Proposal is to demonstrate that pollution prevention through technology transfer works - and works extremely well! The entire focus is to demonstrate that EPA's methodologies included in the P2 Framework are indeed totally transferable to the industry and that these methods can drive P2 outcomes. All of our efforts in this XL Proposal, including a) application of the P2 Framework to Kodak PMN development, b) outreach to the scientific and technical community, c) outreach to the business audience, and d) outreach to the senior management audience are specifically structured to clearly and convincingly demonstrate the transferability of the technology reflected in the P2 Framework. In addition to demonstrating transferability, this XL Proposal will clearly articulate both the environmental/P2 benefits as well as the economic and business benefits afforded companies that adopt and apply the P2 Framework in chemical development operations.

The P2 Framework is a win-win-win proposition. The industry wins by gaining insights into risk-related issues early in product development, when change is most cost effective. The environment and the public win through source reduction, waste reduction and development of environmentally preferable new products. The EPA wins because PMN submissions include the environmental fate and effects information that the EPA would otherwise generate on its own.

F. Feasibility

Kodak management has long supported pollution prevention in product design, as described in the Introduction of this proposal. The P2 Assessment Framework is part of Kodak's product design effort, and has strong support throughout the company. Several additional specific project elements are completed or in progress and Kodak has dedicated the resources to continue these public outreach efforts.

As Kodak has already transferred the P2 Framework technology into its operations, the implementation of the P2 Framework for PMN submissions is highly likely to succeed. The

feasibility of completing the scientific, business, and managerial parts of this XL proposal is high due to the high level of interest that current outreach activities have generated.

G. Evaluation, Monitoring, and Accountability

This project will be evaluated by: 1) assessing the PMN submissions made by Kodak to the EPA as part of the normal TSCA review process, and 2) determining if Kodak has produced reports documenting the outreach efforts to the three publics involved (technical, business and senior management communities). Accountability will be assured by the assessment of new chemical submissions by way of the normal EPA processes. For those chemicals fully assessed within 20-25 days, the regulatory flexibility of manufacturing in 45 days will be granted. For other PMN chemicals, the flexibility will not be granted.

While statistics vary from year to year, Kodak typically submits 15 - 25 PMN notices yearly. Under XL, Kodak commits to evaluating PMN materials using the P2 Framework, and to submitting the results of this evaluation to EPA along with our PMN submission. Kodak's XL Proposal clearly reflects this commitment and Kodak will inform the public by reiterating this commitment to our Stakeholders including the Kodak Park Community Advisory Council and by including this commitment in our publication "Update: A Newsletter to Our Neighbors Near Kodak Park" and on our web site discussed above.

While Kodak commits to evaluating each of its 15 - 25 PMNs each year, it is very important to make the point to stakeholders that the commitment goes far beyond P2 Framework evaluation of 15 - 25 PMNs annually. The selection of a particular material to become the subject of a PMN Notice is but the culmination of many, many evaluations and decisions. As noted above, Kodak typically has several alternative chemicals that may possess needed performance characteristics, any one of which could be chosen for PMN submission. Kodak will use the P2 Framework to evaluate otherwise equivalent PMN candidates and use this information to help choose the most environmentally preferable chemical for PMN submission. It is the screening of chemical candidates, before submission of a PMN, that provides the opportunity to identify pollution prevention opportunities and to select environmentally preferable products and processes. As such, Kodak will use the P2 Framework not just to review 15 - 25 chemicals annually, but to evaluate potentially hundreds of alternative chemicals and to use this information to make environmentally-informed decisions prior to submission of a PMN notice.

As the EPA is keenly aware, the vast majority of all PMN submissions, in all industry sectors, are claimed as Confidential Business Information under TSCA. As such, revealing the exact nature of our PMN submission to the public would place Kodak at a fundamental competitive disadvantage. As discussed above, Kodak will inform the public of our commitment to review each and every PMN submitted by Kodak under this XL Proposal.

H. Pollution Prevention

Pollution Prevention is the central aspect of this proposal. The P2 Assessment Framework devised by EPA's Office of Pollution Prevention and Toxics is an innovative approach to assessing chemicals where data are limited. The application of the Framework early in a product development cycle is a best practice among companies that are attempting to design products with minimal environmental impact. Finally, the sharing of this technology by the EPA and the communication of its benefits by Kodak represents a cooperative approach to pollution prevention.

I. Shifting of Risk Burden

This proposal does not involve shifting a risk burden from one population to another. The process of bringing safer chemicals to market faster benefits all populations involved.

IV. Requested Flexibility

The Toxic Substances Control Act requires a 90 day waiting period before a new chemical that is subject to a PMN can be manufactured or imported. This gives the EPA 90 days to evaluate chemicals to determine whether there is an unreasonable risk to human health or the environment. In many cases, the review does not require 90 days, with a lack of agency action determined at a meeting 20-25 days into the assessment process. The remaining 65-70 days involve no further agency analysis, yet Kodak is unable to manufacture or import the chemical which causes delays in its ability to commercialize products, with resulting loss in income those new products would generate. By using the P2 Assessment Framework, Kodak intends to commercialize chemicals of lower potential risk and these chemicals will generally have been assessed within 20-25 days. Kodak seeks to manufacture these PMN chemicals in 45 days. Importantly, Kodak is not seeking regulatory flexibility from those instances when a chemical is not completely assessed in 20-25 days and enters the standard review process .

V. Compliance and Enforcement Profile

Kodak's policy is to carry out its business activities in a manner consistent with sound health, safety and environmental management practices, and to comply with all applicable laws and regulations.

Eastman Kodak Company reports its U.S. fines and penalties annually in the Environmental Annual Report (1997 and 1998 reports enclosed). In the last two years, six violations were reported, including two violations of TSCA. The company is also under a consent decree signed in 1994 in settlement of a civil complaint brought by the US EPA and the US Department of Justice. Details of the decree are available in the 1998 annual report (enclosed). A 1999 consent decree was recently agreed to with the New York State Department of Environmental Conservation.

VI. Schedule Information

The completion of the specific project elements will follow this approximate schedule:

Implementation of P2 Assessment Framework: The actual technology transfer portion has been completed. Use of the P2 Framework will be a continuing operation into the future.

Outreach to Technical Audience: Many outreach activities have occurred. Outreach activities will be a continuing process as Kodak and the EPA identify appropriate target audiences.

Outreach to Business Audience: The economic analysis report will be completed and submitted to EPA within six months of XL Project approval.

Outreach to Senior Management Audience: The management report will be completed and submitted to EPA within six months of XL Project approval.

Attachments:

Update, A newsletter to our neighbors near Kodak Park, Issue 3, June 1999
Eastman Kodak Company Annual Report 1998
Eastman Kodak Company Annual Report 1997
Health, Safety, and Environment Report 1998
Health, Safety, and Environment Report 1997
Five-Year Worldwide Environmental Goals