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Issue 2, April 2002

*Update*

Eastman Kodak Company  
343 State Street  
Rochester, New York 14650

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#### **KODAK PARK COMMUNITY ADVISORY COUNCIL**

##### **Mission Statement**

The Kodak Park Community Advisory Council seeks to improve the exchange of information between Kodak Park and the community by reflecting constituents' present and future interests, so that Kodak Park operates in a way that is responsive to the needs of the community.

##### **Community Members**

Bob Buesing, Koda-Vista Neighborhood Association  
Jim Cloonan, Member-at-Large  
Dan Coyne, Maplewood Neighborhood Association  
Ralph DeStephano, Greece Central School District  
Charlotte Fraser, League of Women Voters  
Mark Gregor, City of Rochester  
Patrick Hanley, Aquinas Institute  
Rob Hochstetler, Trigen-Cinergy Solutions  
Ann Howard, Rochester Institute of Technology  
Bob Jones, Center for Environmental Information  
Kate Kendall, Irondequoit PTA  
Greg Mason, Neighbors Building Neighborhoods, Sector 2  
Laura McCree, Rochester City School District, School #41  
Greg Merrick, Town of Irondequoit  
Mike Schifano, Monroe County Division of Pure Waters  
Larry Sorel, Seneca Park Zoo  
Max Streibel, Town of Greece

##### **Kodak Members**

John Richardson  
Fred Scott  
Dave Strong  
Scott Summers  
Chris Veronda

#### **KODAK ROCHESTER HEALTH, SAFETY, AND ENVIRONMENT POLICY**

In Kodak Rochester, we are committed to health, safety, and environmental excellence through:

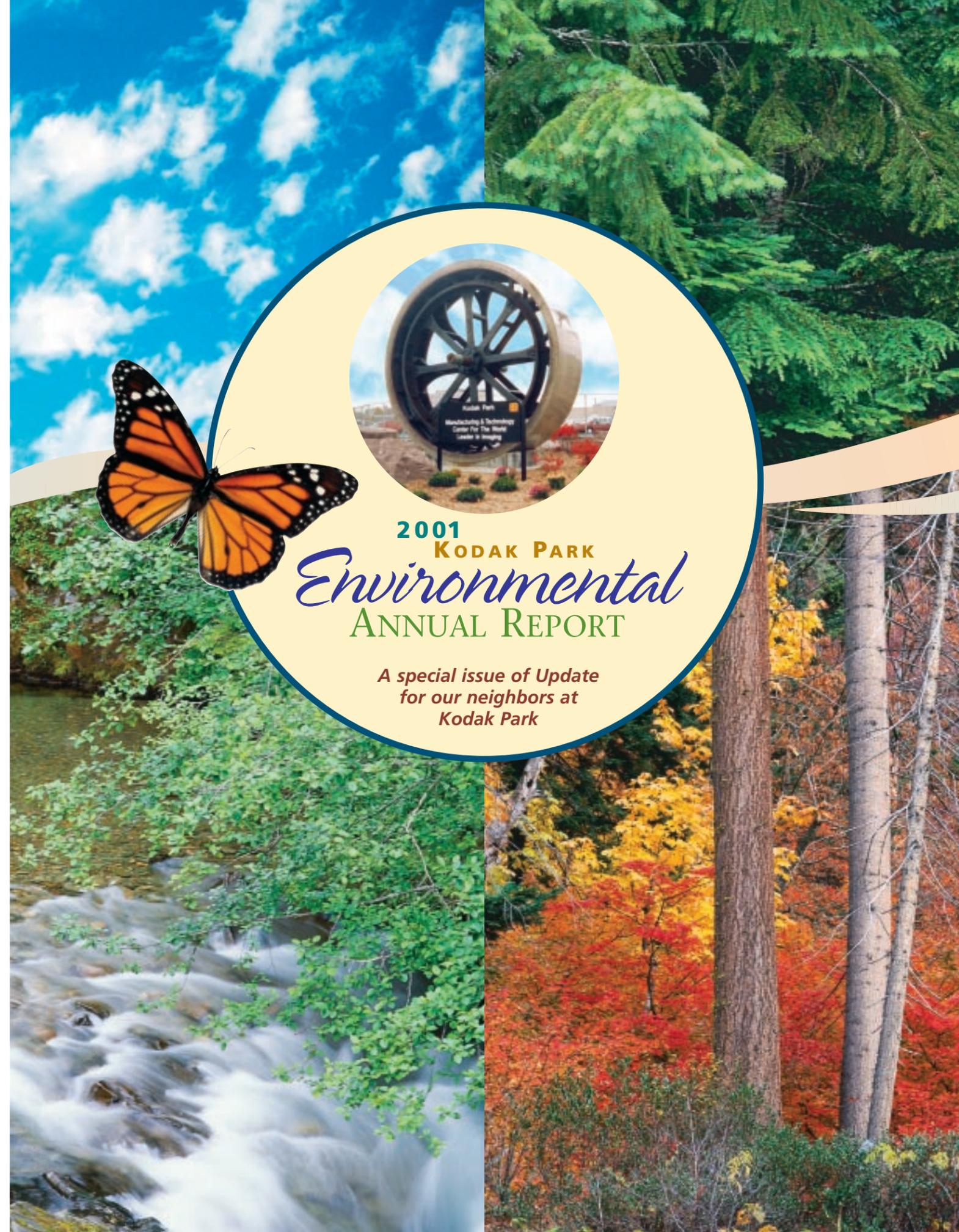
- Compliance with regulations and corporate initiatives
- Prevention of pollution, and
- Continual improvement of HSE performance.

HSE measures are integral components of our performance-based culture and business strategies. Continual improvement is achieved through leadership and personal responsibility, adherence to Kodak Values, effective training and communication, and ongoing performance feedback.



*Picturing a Better Environment*

Printed on recycled paper with soy inks. Contains a minimum of 10% post-consumer content.



## 2001 KODAK PARK *Environmental* ANNUAL REPORT

*A special issue of Update  
for our neighbors at  
Kodak Park*



**ENVIRONMENTAL IMPROVEMENTS CONTINUE AT KODAK PARK.**

## TO OUR KODAK PARK NEIGHBORS



*Last summer, when I was named site manager for Kodak Park, I thought I knew a great deal about this site. After all, I have spent all of my 30 years at Kodak in a variety of positions at Kodak Park—including a recent role as manager for Rochester Color Film Manufacturing.*

*However, I soon discovered just how much I had to learn. Kodak Park is one of the world's largest manufacturing complexes, and it remains by far the largest Kodak manufacturing site. There is simply a great deal to know about such a massive and complex manufacturing facility, even when you've been around for so long, and I'm still learning.*

*During my first days as site manager, a couple of facts became even more apparent to me:*

- *The future success of Eastman Kodak Company depends upon the success of Kodak Park.*
- *Being a responsible corporate citizen—including responsible environmental performance—is essential to the success of Kodak Park.*

*In outlining a vision for Kodak Park's future success, I worked with other senior leaders in Kodak's Global Manufacturing organization to develop four key strategies that will drive our progress:*

- 1. Operational Excellence—We must continue to accelerate the rate at which we improve our operations.*
- 2. Investment and Growth—We will continue to invest in the future of Kodak Park and look for growth opportunities.*
- 3. Citizenship—We are committed to being a responsible corporate citizen.*
- 4. Winning & Inclusive Culture—We are creating and utilizing to our advantage a diverse and inclusive culture.*

*I am very proud of the progress Kodak Park has made in recent years to strengthen its environmental performance. Evidence of this progress includes:*

- *An 86% reduction in methylene chloride air emissions since 1987.*
- *A 77% reduction in federally reportable air emissions.*
- *A 92% reduction in chlorofluorocarbon (CFC) air emissions.*

*Further examples of our progress are contained in this report.*

*We know that you expect us to continue driving progress in our key measures of environmental performance. Since assuming the site manager role, I have adopted a mantra of "The 5 No's"—no environmental incidents, no non-compliances, no permit exceedances, no fines and no excuses. I will not be satisfied—none of us will be satisfied—until this vision is a reality.*

*Over the last several months, I've enjoyed getting to know many of you who are neighbors. I look forward to meeting many more of you in coming months. Meanwhile, I assure you that we value our relationship with you and will continue working to maintain your trust.*

Charles C. Barrentine  
Site Manager, Kodak Park

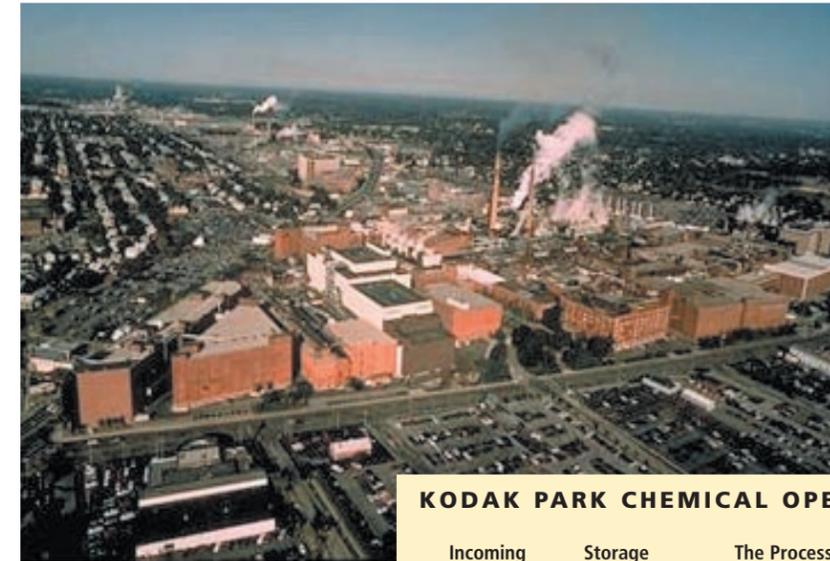
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# KODAK PARK Our Background

**DESCRIBING KODAK PARK** • Kodak Park (KP) is the largest photographic product manufacturing facility in the world, and the largest industrial complex in the northeast United States. The KP plant site is located on more than 1,300 acres, and stretches for nearly four miles through the City of Rochester and the Town of Greece. Much of KP's 22 miles of fence line perimeter borders residential neighborhoods. Approximately 13,000 households and 550 businesses are located close enough to KP to be considered plant neighbors.



Kodak Park, to make way for the construction of a 10,000 square foot addition to Bldg. 52. New uses were identified for Bldg. 308, the former Distillation Products Industries site west of Mount Read Boulevard and renovations to Buildings 205, 214, 605 and 642 were completed along with the subsequent relocation of approximately 3,500 employees from Kodak's Elmgrove Plant operations to Kodak Park. These improvements are examples of ways KP facilities and processes are being refined and revitalized to support Kodak Park's role as "The Manufacturing and Technology Center for the World Leader in Imaging."

**HOW CHEMICALS ARE USED** • Each week, hundreds of truckloads and railcars of raw materials arrive at Kodak Park. KP's power plants consumed approximately 700,000 tons of coal in 2001—equivalent to 7,150 loaded railcars. KP operations require the use of hundreds of chemicals, in quantities ranging from lab-size containers to full tanker truckloads.

On a daily basis, thousands of gallons of chemicals are transported through many miles of pipelines to operations all over Kodak Park.

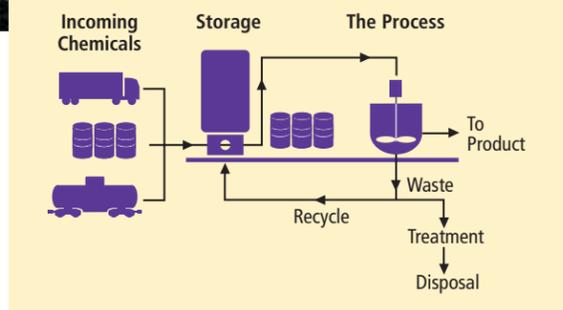
Did you know that there are approximately 500 permitted air emission points at Kodak Park? For the last five years, the amount of solvents recycled has averaged 334 million pounds per year. Although millions of pounds of chemicals are captured and recycled annually, KP also operates its own chemical waste incinerator to allow waste treatment to occur on-site.

The diagram shown at the left can be used to follow chemicals through the plant from their arrival in trucks, railcars, or drums, through their storage and use in a manufacturing

process, to their end use as products. This diagram also shows how waste chemicals are recycled or treated in ways that minimize their impact on the environment.

More than 200 people are employed by KP to work on health, safety, and environmental programs. They study laws and regulations from various government authorities, obtain permits and monitor compliance, plan and construct new facilities, and ensure proper operation of our manufacturing and waste treatment facilities.

### KODAK PARK CHEMICAL OPERATION



Kodak Park has often been called "A City within a City." It has some 160 major manufacturing buildings, nearly 30 miles of roads, two power plants, its own sewer system, and water treatment facilities. KP also operates its own fire department, railroad, and a fleet of some 1,000 vehicles.

A wide variety of photographic films, papers, chemicals, and equipment are produced at Kodak Park. More than 18,000 people are employed in a wide variety of manufacturing operations, and in facilities housing the major portion of Kodak's imaging research laboratories. Kodak Park also serves as an industrial park for businesses affiliated or allied with Kodak.

Since 1995, 51 older buildings and other structures have been demolished as part of a revitalization effort at Kodak Park. Infrastructure improvements in 2001 included major modifications to the north fence line of KPE—the eastern section of

# ENVIRONMENTAL REGULATION *Overview*

**ENVIRONMENTAL REGULATIONS** • Environmental regulations are a major factor in operating a business like ours that is so heavily involved in handling chemicals. The following is a list of major federal environmental statutes administered by the U.S. Environmental Protection Agency (EPA).

- Clean Air Act
- Clean Air Act Amendments of 1990
- Superfund Amendments and Reauthorization Act (SARA)
- Emergency Planning and Community Right to Know Act (EPCRA)
- Clean Water Act
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA)
- Pollution Prevention Act
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

**THE REGULATORY PROCESS** • The federal government often assigns responsibility to state governments to implement and monitor compliance with federal environmental statutes. New York State has this authority and has developed its own set of laws, regulations, guidelines, and enforcement practices, which are as stringent, and often more stringent, than the federal requirements. The New York State Department of Environmental Conservation (DEC) administers environmental regulations in New York State that address air emissions, wastewater discharges, chemical storage, waste handling and treatment practices, pollution prevention, and many other aspects of operations at Kodak Park.

Throughout each year, our technical staff reviews changes to state and federal regulations to determine new impacts on Kodak Park operations. For example, the federal SARA Toxic Release Inventory (TRI) program has been modified to include new compounds and lower reporting thresholds for persistent, bioaccumulative and toxic (PBT) compounds. This rule requires more detailed TRI reporting from Kodak Park as reflected in the year 2000 report that was issued in July 2001. Similarly, in the July 2002 report of 2001 TRI data, KP lead emissions will be reported for the first time. Progress was also made on Kodak Park's Title V facility-wide air permit that will have nearly 14,000 individual requirements and is expected to be finalized in 2002.

The following sections of this report describe our environmental performance and compliance with a multitude of regulations that apply to air emissions, water discharges, chemical storage and recycling, conservation and pollution prevention efforts, and waste handling practices. If you have questions or need more detailed information, please contact the Kodak Park Neighborhood Information Center at (585) 722-1707.



## POLLUTION PREVENTION HIERARCHY

### Source Reduction (Highest Priority)

Environmentally-friendly design of new products  
Product changes  
Source elimination



### Recycling

Reuse  
Reclamation



### Treatment

Stabilization  
Neutralization  
Precipitation  
Evaporation  
Incineration  
Scrubbing



### Disposal

Disposal at a permitted facility

## RECYCLED & REUSED SCRAP MATERIALS

(millions of pounds)

| Material                         | 1999       | 2000       | 2001       |
|----------------------------------|------------|------------|------------|
| Solvents                         | 326        | 336        | 280        |
| Boiler ash                       | 153        | 50         | 132        |
| Plastic—PET*                     | 81         | 86         | 88         |
| Construction & demolition debris | 63         | 44         | 32         |
| Paper                            | 23         | 37         | 43         |
| Other metals                     | 19         | 18         | 17         |
| Plastic—non-PET                  | 12         | 9          | 4          |
| Wood                             | 7          | 15         | 7          |
| Other recyclables                | 2          | 3          | 22         |
| Silver                           | 1          | 1          | 1          |
| <b>TOTAL</b>                     | <b>687</b> | <b>599</b> | <b>626</b> |

\* PET = Polyethylene Terephthalate

## WASTEWISE MILESTONES

- 1994** Kodak joined *WasteWi\$e* as a charter member and was recognized for "outstanding contributions"
- 1995** Recognized for its "comprehensive waste reduction program"
- 1997** Becomes a *WasteWi\$e* senior partner
- 1998** Recognized as a "Program Champion"
- 1999** Recognized as "Partner of the Year"
- 2000** Second award for "Partner of the Year"
- 2001** Third award for "Partner of the Year"

# POLLUTION *Prevention* & Waste Minimization

**SOURCE REDUCTION** • The pollution prevention hierarchy, depicted in the accompanying chart, is the model used to minimize pollution from manufacturing operations at Kodak Park. Source reduction is the highest priority, with recycling, treatment, and disposal being less preferred options. Many of the improvements highlighted in this report demonstrate Kodak Park's environmental performance as a result of source reduction initiatives.

**RECYCLING AND REUSE** • The importance of recycling and reuse has long been known to Kodak, where several key raw materials have been recycled for more than 100 years. Recycling and reuse follows source reduction in our pollution prevention hierarchy. In 2001, more than 600 million pounds of scrap materials, including solvents, plastics, wood, metals, and other by-products of manufacturing, were recycled and reused at Kodak Park. In addition, more than 20 million ounces of silver are recovered annually at KP.

**NATIONAL RECOGNITION** • In 1994, Kodak became a charter member of *WasteWi\$e*, a voluntary program sponsored by the U.S. Environmental Protection Agency (EPA) that promotes solid waste prevention and recycling initiatives. In 2001, Kodak was recognized by the EPA with its third *WasteWi\$e* "Partner of the Year" award. Specific progress at Kodak Park during 2001 that contributed to this success included:

- Helping increase the return rate on Kodak FUNSAVER cameras to nearly 75%, allowing more parts to be reused and recycled for the manufacture of new cameras.
- Recycling 125 tons of unusable polyethylene-coated photographic paper.
- Reusing 850 tons of old furniture.
- Recycling 65,000 tons of various metals, plastics, papers and wood.

In June 2001, Kodak announced the formation of a Pollution Prevention Advisory Panel, a panel of leading independent scientists who now serve as consultants to Kodak on issues related to the company's environmental performance. Members bring together broad expertise in toxicology, pollution prevention, risk assessment and epidemiology.

# KODAK PARK Environmental Goals



## FIVE-YEAR ENVIRONMENTAL GOALS



## ENVIRONMENTAL GOALS

### 30 PRIORITY CHEMICALS

- Acetaldehyde
- Acetone
- Ammonia
- n-Butanol
- Cadmium compounds
- Chromium compounds
- Cyclohexane
- Dichloromethane
- 1,2-Dichloropropane
- 1,4-Dioxane
- Ethanol
- Ethyl acetate
- Ethylene glycol
- Ethylene glycol monophenyl ether
- Formaldehyde
- Heptane
- Hydrochloric acid
- Hydrogen fluoride
- Isobutanol
- Isopropanol
- Manganese compounds
- Methanol
- Methyl ethyl ketone
- Methyl isobutyl ketone
- Silver compounds
- Tetrahydrofuran
- Toluene
- Trichloroethylene
- Xylenes
- Zinc compounds

**DOING OUR PART** • Nearly half of Kodak's worldwide production of imaging materials is based in Rochester. With over ten years of success at significantly reducing our impact on the environment, Kodak Park is demonstrating a key leadership role in achieving the current series of comprehensive, five-year environmental goals for Kodak's worldwide operations.

By January 1, 2004, we will further:

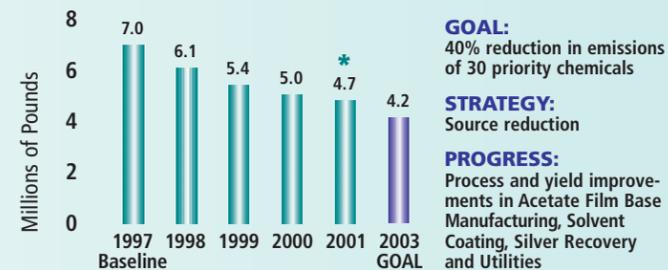
- Cut our environmental emissions
- Reduce our waste and water usage, and
- Conserve energy from our manufacturing operations.

These three strategic initiatives **DRIVE** our progress... the goals **MEASURE** it.

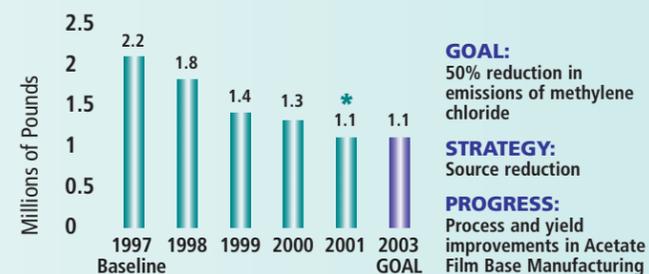


### REDUCE EMISSIONS

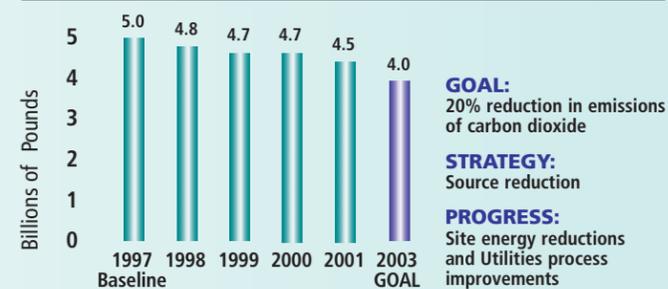
#### 30 PRIORITY CHEMICALS — KODAK PARK



#### METHYLENE CHLORIDE — KODAK PARK



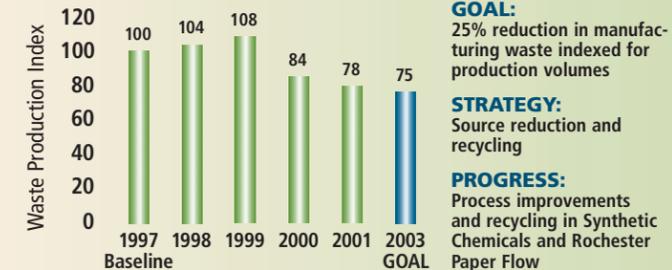
#### GREENHOUSE GAS (CO<sub>2</sub>) — KODAK ROCHESTER



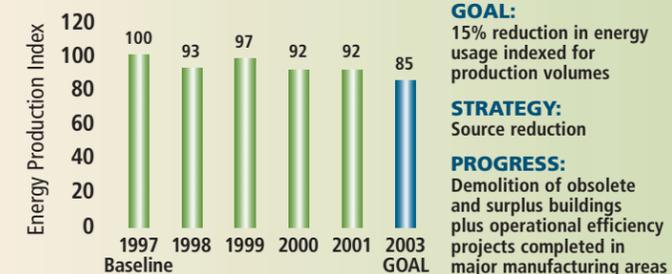
\* Estimated data

### REDUCE NATURAL RESOURCE USE & WASTE

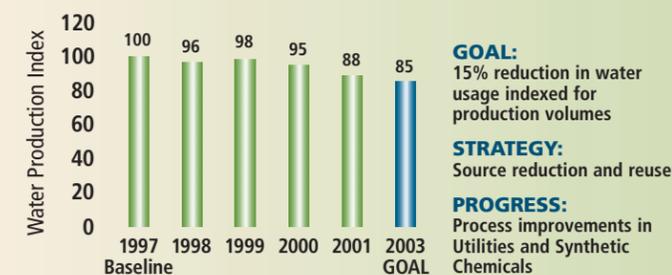
#### MANUFACTURING WASTE — KODAK ROCHESTER



#### ENERGY CONSERVATION — KODAK ROCHESTER



#### WATER USAGE — KODAK PARK



**REDUCING EMISSIONS** • The first strategic initiative focuses on pollution prevention and source reduction. Kodak Park is striving to reduce emissions by primarily cutting pollution at the source, not treating it after it has been created. We are committed to:

- Further reduce emissions of 30 priority chemicals by 40% from 1997 levels. This will result in an aggregate 15-year reduction of at least 70%.
- An additional 50% reduction in emissions of methylene chloride from 1997 levels resulting in an aggregate 15-year reduction of at least 90%.
- A 20% reduction in greenhouse gas emissions from our power plants. Greenhouse gas emissions (primarily carbon dioxide) have been linked by many scientists to global climate change.

**PRESERVING NATURAL RESOURCES** • Our goals relating to the preservation of natural resources are:

- A 25% reduction in the production of manufacturing waste, thus significantly reducing the amount of waste that needs to be treated either by incineration or by wastewater treatment.
- A 15% reduction in energy used in manufacturing.
- A 15% reduction in water usage.
- The virtual elimination of heavy metals from Kodak products.

**STRENGTHENING OUR MANAGEMENT SYSTEM** •

The Kodak Rochester Environmental Management System (EMS), registered in 1999 during initial ISO 14001 certification, provides an environmental framework for organizations throughout Rochester, including Kodak Park. The EMS provides common direction and helps ensure compliance with corporate and regulatory requirements, as well as the requirements of ISO 14001. Two subsequent audits were successfully completed during 2001 by an independent registrar.

# CLEAN Air

**REDUCING AIR EMISSIONS** • Kodak Park remains committed to reducing chemical air emissions. In recent years, tens of millions of dollars have been invested to reduce these emissions by modifying processes, reformulating products, and improving emission controls.

In 2000 (the latest year for which data is available), SARA-reportable air emissions fell to 4.3 million pounds—a 77% reduction since 1987.

Over the last 14 years, annual air emissions of methylene chloride have been reduced by 7.6 million pounds, and annual air emissions of methanol are down nearly 3.8 million pounds. Since 1993, chlorofluorocarbon (CFC) air emissions have been reduced by 92%.

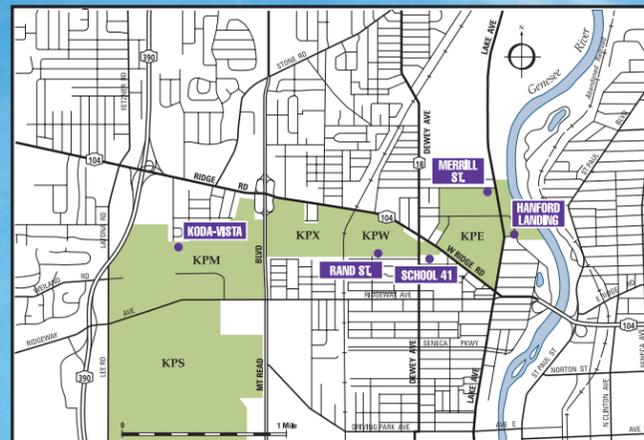
Using natural gas reburn technology, combined with energy conservation efforts, utility boiler emissions have been significantly reduced for nitrogen oxides, sulfur dioxide and hydrochloric acid.

**AMBIENT AIR MONITORING** • Since 1990, 24-hour air samples have been collected at up to seven locations around Kodak Park. About 60 samples are collected per year at each location. Sampling results are shared quarterly with the New York State Department of Environmental Conservation (DEC) and the Department of Health (DOH). In 2001, all samples were analyzed for methylene chloride, the chemical used in largest volume at Kodak Park. These data indicate that at the Hanford Landing, Merrill Street and School 41 locations, the lowest ever annual average concentrations of methylene chloride were recorded.

In July 2000, the DEC's Division of Air Resources lowered the annual guideline concentration for methylene chloride from 8 parts per billion (ppb)—a concentration that is considered to be protective of human health over a lifetime of continuous exposure—to 0.6 ppb in order to be consistent with federal guidelines. These guidelines are used to evaluate air permits and determine required levels of emission control for air emission sources.

A decade of progress in reducing methylene chloride air emissions from Kodak Park has resulted in lower monitored concentrations of this chemical beyond plant boundaries. Progress toward achieving Kodak's goal of a 90% cumulative reduction in methylene chloride air emissions by January 1, 2004, will further lower ambient air concentrations of methylene chloride.

## AMBIENT AIR MONITORING LOCATIONS



## AIR CONCENTRATIONS OF METHYLENE CHLORIDE (parts per billion)

| Sampling Location    | Annual Average 2001 | 5-Year Average (1997-2001) |
|----------------------|---------------------|----------------------------|
| Koda-Vista           | 3.2                 | 4.8                        |
| Rand Street          | 1.8                 | 2.5                        |
| School 41            | 0.8                 | 1.7                        |
| Merrill Street       | 4.6                 | 8.8                        |
| Hanford Landing Road | 2.5                 | 4.9                        |

## KODAK PARK SARA REPORTABLE AIR EMISSIONS SUMMARY (>25,000 POUNDS) (in thousands of pounds)

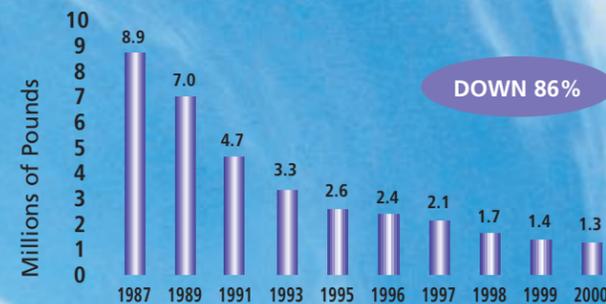
| Substance           | Baseline Year 1987 | 1999   | 2000  | Percent Change 1999-2000 | Percent Change 1987-2000 |
|---------------------|--------------------|--------|-------|--------------------------|--------------------------|
| Hydrochloric acid   | 2,300              | 1,400* | 1,400 | 0%                       | -39%                     |
| Methylene chloride  | 8,920              | 1,400  | 1,253 | -7%                      | -86%                     |
| Sulfuric acid       | NR                 | 570    | 569   | 0%                       | NA                       |
| Methanol            | 4,279              | 655    | 483   | -26%                     | -89%                     |
| Hydrogen fluoride   | 97                 | 155*   | 165   | 6%                       | 70%                      |
| Toluene             | 281                | 65     | 61    | -6%                      | -78%                     |
| Chlorine            | 35                 | 46     | 55    | 20%                      | 57%                      |
| Ozone               | NR                 | 32     | 33    | 3%                       | NA                       |
| Barium compounds    | 1.4                | 44*    | 25    | -43%                     | 1,686%                   |
| Methyl ethyl ketone | 128                | 21     | 25    | 19%                      | -80%                     |

NR=No reportable release NA=Not applicable  
\* Several changes in how the data are calculated based on new guidance from the EPA.

## SARA-REPORTABLE AIR EMISSIONS



## METHYLENE CHLORIDE AIR EMISSIONS



# CLEAN Water

**INDUSTRIAL WASTEWATER** • Most of the water from manufacturing processes and a large portion of the storm water at Kodak Park is directed to and treated at the King's Landing Wastewater Treatment Plant. This plant, located on the west bank of the Genesee River and east of Kodak Park, treats an average of 24 million gallons of industrial wastewater per day.

Kodak is the only company in Monroe County that operates an industrial wastewater facility with primary and secondary treatment capability. This modern facility utilizes physical, chemical, and biological treatment processes to remove materials in the wastewater coming from Kodak Park.

In 1999, the New York State Department of Environmental Conservation (DEC) issued Kodak a new permit, valid for five years, regulating wastewater and storm water discharges from Kodak Park. The conditions of this permit limit the type and quantity of materials that can be discharged from the plant and establish strict monitoring requirements to ensure compliance. Results from thousands of analytical tests conducted annually demonstrate our ability to consistently meet the conditions of this permit, with very few exceptions.

consistently meet the conditions of this permit, with very few exceptions.

In 2001, seven permit exceedances were reported for KP wastewater discharges and thirteen exceedances were reported for storm sewer discharges. In addition, the DEC modified Kodak's permit to include testing for the presence of dioxins in wastewater discharges from King's Landing. Preliminary results indicate that low levels of dioxins were present in some samples at concentrations consistent with engineering estimates used to calculate emissions under new federal reporting requirements. This sampling will continue through much of 2002 to determine if levels of dioxins are affected by recent modifications to the air emission control equipment at the Bldg. 218 chemical waste incinerator.

**GROUNDWATER** • There are nearly 800 groundwater monitoring wells in Kodak Park and adjacent neighborhoods. Groundwater flow direction measurements are collected twice a year from each well. In addition, samples are routinely collected from more than 150 of these wells annually to monitor water quality in and around Kodak Park.

Several techniques are being used to contain contaminated groundwater located beneath Kodak Park. There are currently 26 groundwater pumping systems operating at key locations to intercept groundwater before it reaches plant boundaries. Groundwater collected from these systems is pumped to the KP industrial sewer for treatment at the wastewater treatment plant. Annually, Kodak actively removes and treats approximately 50 million gallons of groundwater from beneath Kodak Park.

## KODAK PARK POWER PLANT EMISSIONS\* (in millions of pounds)

| Emission                           | 1994 | 1996 | 1998 | 1999 | 2000 |
|------------------------------------|------|------|------|------|------|
| Sulfur oxides (SO <sub>x</sub> )   | 70.3 | 61.1 | 47.5 | 52.7 | 55.8 |
| Nitrogen oxides (NO <sub>x</sub> ) | 24.0 | 17.7 | 12.6 | 10.9 | 10.8 |
| Carbon monoxide (CO)               | 2.8  | 3.5  | 2.6  | 1.5  | 1.6  |
| Particulate                        | 2.8  | 2.5  | 2.2  | 2.2  | 2.4  |
| Volatile organic compounds (VOC)   | 0.3  | 0.3  | 0.2  | 0.2  | 0.2  |

\* air emissions not reported under SARA

# REDUCING Our Impact

**ENERGY CONSERVATION** • Energy is a significant part of Kodak Park's cost picture. Because production of photographic products requires carefully controlled temperature and humidity conditions, there are large-scale refrigeration equipment installations at a number of locations around Kodak Park. Plumes of steam can often be seen rising from cooling towers at these locations.

Two power plants support these installations. The power plants utilize an energy-efficient process called cogeneration to get double use from the steam they produce. Besides operating refrigeration equipment, the steam drives electrical generators to supply most of the power needs of KP. In January 2000, operation of KP's two power plants was turned over to Trigen-Cinergy Solutions (TCS), a company that specializes in operating facilities that utilize cogeneration to maximize energy efficiency.

With energy comprising such a major cost, we will continue our drive to achieve energy use reductions. Since 1997, energy conservation programs at Kodak Park have resulted in ongoing reductions in electrical usage of eight megawatts, enough to supply the annual energy needs for nearly 8,000 typical homes in our region.

Key energy reduction strategies included consolidation of manufacturing space, manufacturing waste reduction, and increased utilization of energy-efficient equipment.

**KODAK JOINS ENERGY STAR** • Kodak has extended its commitment to continuous improvement of its energy performance by joining the Energy Star program of the U.S. Environmental Protection Agency (EPA).



Many consumers are familiar with the Energy Star logo that is used to designate products meeting high energy-efficiency standards. Now, Energy Star has been extended to be a tool for companies to measure, track and benchmark their overall corporate energy performance.

By joining Energy Star, Kodak also committed to develop and implement plans to improve energy performance in its operations. Kodak currently is working to achieve a 15% reduction in energy usage by 2004, as called for in one of its five-year environmental goals. Through 2001, an 8% reduction had been achieved for Kodak Rochester operations.

As part of this new partnership with the EPA, Kodak also agreed to educate its employees and the public about its energy conservation achievements.

**INDUSTRIAL SEWER INTEGRITY** • Since 1994, Kodak Park has been involved in a multi-year program to inspect, repair, and upgrade much of the 28 miles of industrial sewer lines running underneath Kodak Park. To date, all the lines conveying industrial wastewater containing hazardous wastes from plant operations to the wastewater treatment plant have been inspected and repaired. Ongoing efforts to further improve the integrity of KP's industrial sewer system involve use of durable polyurethane resins, installation of impervious liners, or, when necessary, construction of new structures. These sewer upgrades reduce the likelihood of future environmental releases from Kodak Park.

**CLEAN-UP EFFORTS** • A Kodak Park Corrective Action Program (KPCAP) has been implemented to facilitate compliance with the many federal and state requirements regarding the investigation and remediation of groundwater and soil contamination at Kodak Park. It has three key elements:

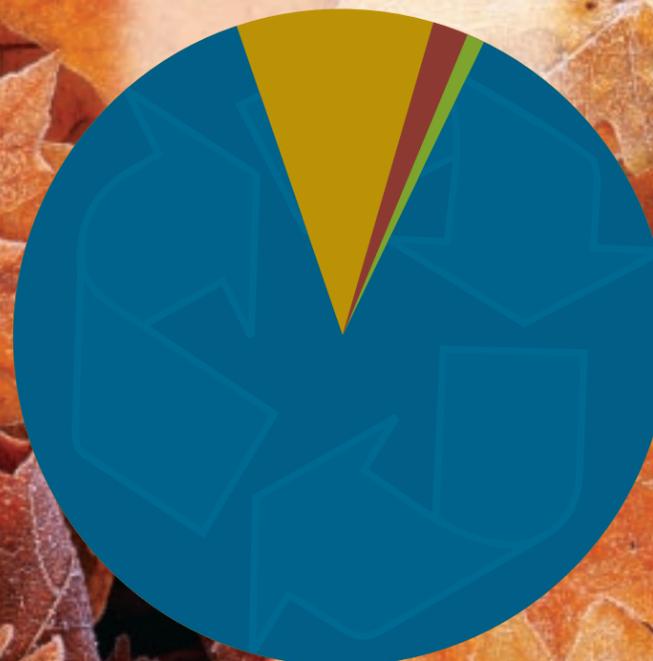
1. Facility investigations determine groundwater and soil conditions, and the nature and extent of contamination in an area.
2. Corrective measures studies are conducted to investigate clean-up options and determine if remedial measures should be implemented to contain groundwater or soil contamination.
3. This information is then used to develop and implement identified corrective measures.

Significant KPCAP activities in 2001 included:

- Initiation of a facility investigation around Bldg. 317 in the KPM section of Kodak Park (south of the Koda-Vista neighborhood).
- Initiation of a facility investigation in the vicinity of Buildings 202 and 208 in the KPX section of Kodak Park (south of Ridge Road, between Mt. Read Boulevard and the railroad tracks).

## DISPOSITION OF SARA REPORTABLE CHEMICALS AT KODAK PARK (2000 Data)

(in pounds)



# TREATMENT & Disposal

**CHEMICAL WASTE INCINERATOR** • The Bldg. 218 chemical waste incinerator, located near the railroad crossing on Ridge Road, is a key treatment facility at Kodak Park. The liquid and solid wastes destroyed here are ones that cannot be recycled, reused or recovered. The Bldg. 218 facility utilizes high-temperature incineration to destroy at least 99.99% of organic wastes, converting them to mostly carbon dioxide and water.

This chemical waste incinerator operates under a permit required by the federal Resource Conservation and Recovery Act (RCRA). In 1995, Kodak initiated the process to renew the existing RCRA permit with the U.S. Environmental Protection Agency (EPA). A new operating permit is also being negotiated with the New York State Department of Environmental Conservation (DEC).

Trial burns have been conducted periodically under the supervision of the DEC and EPA to demonstrate the continuing capability of the Bldg. 218 incinerator to operate with a destruction removal efficiency (DRE) of at least 99.99%, during worst case operating conditions, for even the most difficult-to-destroy organic wastes. The EPA, DEC and New York State Department of Health have reviewed extensive risk assessments based on these stringent emissions tests. These agencies have concluded that the Bldg. 218 chemical waste incinerator operates in a manner that is protective of human health and the environment.

In 2001, Kodak completed construction of a multi-million dollar air emission control equipment upgrade at Bldg. 218. This project, which is expected to further reduce emissions of particulate, metals and dioxins by 50-80%, was completed almost two years ahead of the effective date of new federal Maximum Achievable Control Technology (MACT) air emission standards for hazardous waste combustors (see related story on page 13).

**MULTIPLE HEARTH INCINERATOR** • The new MACT standards will also apply to the Bldg. 95 multiple hearth incinerator at the King's Landing Wastewater Treatment Plant.

Towards the end of 2001, a series of air tests were completed to determine if the multiple hearth incinerator was capable of operating in compliance with regulatory requirements. A trial burn test report was recently submitted to the EPA and DEC for their review. The test results indicate that the overall destruction and removal efficiency of the multiple hearth incinerator is better than (above) the minimum required level of 99.99%. Specific tests for particulate emissions and dioxins/furans were also better than (well below) the maximum emission limits established. The data obtained from these tests will be used to make changes to pending permit applications, such as the Kodak Park Title V air permit, and the Part 373 permit required by the Resource Conservation and Recovery Act (RCRA), and will eventually be incorporated into a multi-pathway risk assessment for Bldg. 95.

## Kodak Park Team STORIES

**WATER USAGE REDUCTION ACHIEVED** • As one of the world's largest manufacturing complexes, Kodak Park has a pretty big thirst for water—more than 10 billion gallons of water were utilized at the site during 2001. That equates to about 28 million gallons a day.

While those are big numbers, they're also significantly less than the prior year because of a major new water conservation campaign led by a site team. Water usage in 2001 declined by 1.6 billion gallons, or by about four million gallons a day. (By comparison, the 1.6 billion gallons is about equivalent to the two-week output of the Monroe County Water Authority's Shoremont Plant in Greece that services more than 400,000 customers.)

A large majority of KP's water usage is for heating and cooling purposes. It is utilized to produce steam, and is also circulated through the many cooling towers across the site.

KP operates its own water system, drawing water from Lake Ontario directly into its own Lake Station treatment facility to make it suitable for use in manufacturing operations. It's a bountiful resource for sure, but one that's not free, notes Gary Wainwright, who leads the site team that is driving the water conservation initiative.

"There is a cost to treat the water for our needs, and for the electricity to pump it uphill to Kodak Park from the Lake Station," he said, "and, since more than eighty percent of the water we utilize is not consumed in our processes, we have the additional cost of purifying the water before it is returned to nature." Wainwright noted that about 24 million gallons of treated wastewater are discharged daily into the Genesee River from the Kodak Park wastewater treatment plant at King's Landing.



Beyond these business costs, though, Wainwright points out that Kodak recognizes its responsibility for being an environmental steward of water resources. The company has established, as one of its five-year environmental goals, a 15% target for reduction in water usage.

During the first half of 2001, the third year of the goal time-frame, the reduction in water usage actually hit the 15% target on a production-indexed basis, but fell back somewhat as manufacturing volumes went down faster than water usage.

The water reductions achieved in 2001 were due to several key projects, according to Wainwright. He points out that the team is comprised of members from across site manufacturing operations that are major water users, as well as those who manage and operate the utilities operations.

The site utilities operation was responsible for about three-fourths of the reductions achieved last year. Norman Ainsworth, a member of the site water conservation team, identified projects at the Bldg. 321 power plant to reduce water usage

through more effective recycling of water used for cooling purposes. Ted Cornell and Ron Haskins, refrigeration and water systems operators in Utilities, identified and led projects in their area.

The Synthetic Chemicals manufacturing operation accounted for much of the other portion of the overall reduction through a consolidation of manufacturing facilities. The Silver Recovery operation, another notable contributor,

achieved a 20% water usage reduction in 2001, and is targeting a similar percentage reduction this year.

In 2002, to further reduce water usage at KP, projects are being implemented in several operations, including Synthetic Chemicals and Paper Support Manufacturing.

"Our water usage reduction team members are deeply committed to gaining cost savings for Kodak while at the same time preserving natural resources," said Wainwright. "It's a great feeling knowing that our efforts are helping both Kodak and the environment."

**INCINERATOR UPGRADE COMPLETED** • Faster, better, safer—plus more environmentally friendly and cost effective.

That sums up the work in 2001 of a team of Kodak people who partnered with outside contractors to complete a comprehensive upgrade of the air emission control system for KP's Bldg. 218 chemical waste incinerator.

It's a pretty impressive accomplishment to complete a \$12 million capital project involving construction of new facilities and installation of massive air emission control equipment in only nine months. It's even more impressive when you consider that the project was completed:

- In near flawless fashion,
- For \$1 million less than originally anticipated, and
- Without a single lost-time injury to any of the workers involved in the project.

The Kodak team accomplished all that, and put the new air emission control system into operation by November 2001—almost two years ahead of the regulatory compliance date to meet the new, federal Maximum Achievable Control

Technology (MACT) standard. The upgrade, utilizing proven, state-of-the-art technology, is expected to further reduce air emissions of particulate, metals and dioxins by 50-80%.

Selection of the technology and design for the new air emission control system was based on a comprehensive evaluation of available options. The system is very similar to one that has been operating successfully for seven years on the multiple hearth incinerator at the KP wastewater treatment plant.

Some 100 Kodak people from a wide variety of disciplines worked to complete the project on this very aggressive timetable, according to Bernie Nee, manager, Utilities Waste Management. They coordinated the efforts of internal resources, several construction contractors and equipment suppliers.

During the construction and installation work, the incinerator had to be kept running most of the time to continue handling the flow of chemical waste that cannot be recovered or recycled. Once this work was complete, the incinerator was shut down to allow the new emission control system to be brought on-line.

The team's thorough planning and expert execution kept the shutdown period minimized to only three weeks. During the

shutdown and subsequent startup of the new system, chemical waste was stored for future treatment. Nee notes that even with the greatly increased inventory and extra handling required during this backlog period, there were no spills or other incidents.

"Looking back at the project, it's clear that our team members brought together diverse skills and talents and worked as one team," Nee said. "They knew it would be very difficult to accomplish all of our goals, but they were determined to succeed, and they did."



# RESPONDING To Community Concerns

**HOW ARE WE DOING?** • For more than ten years, Kodak Park (KP) plant neighbors have been asked to provide feedback to Kodak regarding awareness of KP community programs and services, their view of KP environmental performance, their overall perception of KP, and the role of KP in the community. The information gathered is used to help measure the effectiveness of community outreach activities at Kodak Park.

Results from the written and telephone surveys conducted in 2001 indicate that most plant neighbors have a favorable opinion of operations at Kodak Park, adding to the positive views from previous years. More than eight out of ten people surveyed (86%) had a positive perception of Kodak Park and an overwhelming percentage (96%) agreed that "KP is an asset to the community." Similarly, 81% of those surveyed agreed that KP is a good neighbor to those living near the plant, and 92% thought Kodak is responsive to public concerns.

## A DECADE of Progress

### 1991

The first Annual Community Survey of plant neighbors is conducted to collect valuable feedback and perceptions about Kodak Park.

### 1992

Kodak Park achieves a 52% reduction in its air emissions of 17 targeted chemicals three years ahead of its voluntary commitment to reduce emissions by 50% through participation in EPA's 33/50 Program.

### 1993

Work begins on a multi-million dollar CFC Reduction Program to significantly reduce emissions of this environmentally disruptive substance.

### 1994

A seven-year, \$25 million program is completed to eliminate all electrical transformers containing PCBs, a type of coolant identified as a major environmental threat if leaked or spilled.

Kodak Park's Neighborhood Information Center receives local and national recognition for its neighborhood relations and environmental communications efforts.

Acetate Film Base Manufacturing operations achieve 99% control of methylene chloride emissions through a combination of source reduction and control initiatives, helping Kodak Park achieve an overall 63% reduction of emissions of this chemical.

Kodak joins EPA's WasteWise program as a charter member and receives recognition for "outstanding contributions."

### 1995

Kodak is recognized by the EPA with an "Environmental Champion" Award for its voluntary initiative in reducing air emissions of targeted chemicals.

### 1996

The Synthetic Chemicals department installs a new form of air emissions control called Bioton, which uses microorganisms to treat organic air emissions from its operations.

### 1997

The King's Landing Wastewater Treatment Plant completes its 30th year of operation. It has been regularly upgraded to meet ever-strengthening discharge standards set under its state operating permit.

### 1998

A \$15 million Regenerative Thermal Oxidizer begins operation and demonstrates significant reductions in air emissions from KP's Solvent Coating operations.

### 1999

Kodak announces comprehensive corporate environmental goals, setting aggressive targets to further reduce environmental emissions, waste, water usage, and energy consumption in worldwide manufacturing operations.

Kodak completes its Value Protection Program (VPP), a ten-year commitment to restore normal real estate conditions to areas around Kodak Park.

Kodak Park achieves ISO 14001 registration, gaining international recognition for its environmental management system.

### 2000

Work begins on upgrades to the Bldg. 218 air emission control equipment designed to meet new, lower air emission (MACT) standards.

Kodak partners with EPA to apply the Pollution Prevention Framework (P2 Framework) to early product development under EPA's Project XL Program.

Phase 1 of Kodak Park's CFC Reduction Program is completed resulting in a 92% decrease in emissions of CFC's from Kodak Park since 1993.

### 2001

A \$12 million upgrade is completed and operations begin at Bldg. 218 with new air emission control equipment designed to meet new, lower air emission (MACT) standards.

Kodak assembles a panel of leading independent scientists to serve on a Pollution Prevention Advisory Panel as consultants on issues related to the company's environmental performance.

### TELEPHONE SURVEY RESPONSES

On a scale of 1 to 10 where 1 is unacceptable and 10 is the best it could be, please rate Kodak Park on the following:

| Control of:     | Year 2001 Telephone Survey Responses | Range of Survey Responses (1992-2001) |
|-----------------|--------------------------------------|---------------------------------------|
| Water Pollution | 6.4                                  | 5.5 – 6.6                             |
| Air Pollution   | 5.5                                  | 5.1 – 6.2                             |
| Noise           | 7.8                                  | 6.9 – 7.8                             |
| Particulate     | 6.2                                  | 5.4 – 6.5                             |
| Odors           | 5.9                                  | 4.8 – 6.0                             |

When asked to rate KP environmental performance:

- 89% of survey respondents indicated that Kodak Park has improved its control of pollution in recent years.
- 85% indicated that KP takes an active role in protecting the environment.
- 85% of respondents agreed that Kodak works hard to keep its pollution to a minimum.
- 94% said that Kodak's environmental performance is the same or better than other U.S. companies.

**SETTLEMENTS** • In March 2001, Kodak agreed to pay a \$25,000 fine to the U.S. Department of Transportation for alleged violations of the Hazardous Materials Regulations. In July 2001, Kodak agreed to pay a \$175,000 fine to the U.S. Environmental Protection Agency for alleged failure to comply with regulations associated with the Resource Conservation and Recovery Act (RCRA) related to air emission standards for organic hazardous wastes. In December 2001, Kodak agreed to pay a fine of \$70,000 for violations of Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) requirements applicable to the Synthetic Chemicals manufacturing area.

**PROGRAM AND SERVICES** • Probably the most visible way Kodak Park communicates with the community is through its *Update* newsletter. Five times a year this publication is sent to approximately 13,500 plant neighbors and more than 18,000 KP employees in an effort to keep people informed about developments at Kodak Park.

The Neighborhood Information Center (NIC), located near the west end of the Bldg. 28 lobby at 200 West Ridge Road, has been in operation for more than ten years and is open to anyone seeking information about Kodak Park-related issues. Knowledgeable staff members are available to assist visitors between 8:00 a.m. and 5:00 p.m., Monday through Friday.

Plant neighbors who wish to express a concern about plant operations can call the KP Environmental Concerns Line at (585) 477-4500. This phone number is available 24 hours a day, every day of the year.

Kodak Park proudly sponsors a Community Advisory Council (CAC) with members representing local government, school districts, plant neighbors, and special interest groups. The CAC continues to meet monthly to improve the exchange of information between KP and the community.

KP representatives also meet twice a month with members of specific neighborhoods adjacent to the plant. These meetings usually involve in-depth discussions of issues raised by the neighbors as well as topics suggested by plant personnel.

### COMMUNITY SUPPORT AND OUTREACH

Support of community events offer Kodak Park employees an opportunity each year to personally demonstrate their commitment to the environment and develop an understanding of local issues. In 2001, KP employees participated in such community outreach events as environmental fairs, student projects and interviews, and school workshops and presentations.

**COMMITMENT** • Manufacturing operations can impact plant neighbors in a variety of ways. Kodak Park remains committed to addressing the concerns of plant neighbors and anticipating how projects within KP might affect neighborhoods adjacent to the plant. Calls from plant neighbors are investigated through the Neighborhood Complaint Response Program. Each call is investigated thoroughly and investigation results are shared with the neighbor and plant management. In 2001, this commitment was exemplified through:

- Sustained performance in reducing odors from the King's Landing Wastewater Treatment Plant resulting in a ten-fold decrease in odor complaints since 1998.
- Cooperation with government agency health and environment officials to clean up materials and resolve numerous employee and neighborhood concerns associated with an accidental release from the polyester film base manufacturing area (Bldg. 317).