

*City of Alexandria, Virginia*21
6-26-01

MEMORANDUM

DATE: JUNE 21, 2001

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*

SUBJECT: 2001 REPORT REGARDING THE ALEXANDRIA/ARLINGTON WASTE TO ENERGY FACILITY ISSUE

ISSUE: City Council receipt of the report regarding the Alexandria/Arlington Waste-to-Energy Facility.

RECOMMENDATION: That City Council receive this report.

DISCUSSION: In response to amendments to the Federal Clean Air Act, the City of Alexandria and Arlington County (the Jurisdictions) and Covanta Energy, Inc. (formerly Ogden, Inc.) committed in 1998 to improve air quality by retrofitting the Alexandria/Arlington Waste-to-Energy Facility. Funded through a \$46.1 million revenue bond issue, the retrofit of the Waste-to-Energy Facility was substantially completed in November 2000. In addition to the retrofit the project brought major facility improvements that enhanced the building and provided a positive contribution to the aesthetics of the surrounding neighborhood. The Facility now has state-of-the-art emission control systems that are equal to or better than other existing waste-to-energy facilities in the country. Independent tests on the emissions of the Alexandria-Arlington Facility have shown that the retrofit of the Facility meets by substantial margins most categories of the tighter federal air quality standards. This retrofit project was completed on time and \$3.2 million under budget. The Jurisdictions and bond counsel are now studying how, under federal requirements, remaining bond proceeds can be used. While how the proceeds can be used has not yet been determined, these funds will be used to the financial benefit of the project.

Other major improvements of the retrofit project included a new computerized combustion control system, new scales and scale-house, new windows, new stack siding, a new entrance, facility painting and the addition of an on-site access road to reduce congestion. Further enhancements to be made in the Summer of 2001 include new fencing, noise shielding, and landscaping improvements.

The Jurisdictions continue to face the challenges of maintaining a reliable, cost-effective, and environmentally sound municipal waste management system. As a result of expanding waste reduction and recycling efforts, it will be important to ensure there is a stable waste supply to the

Facility, that we respond to the deregulation of the electric power industry, and that we preserve the fiscal stability of the Facility.

Waste Reduction and Recycling:

In 2000, the City implemented several new programs and services and is considering expanding others to increase waste reduction and recycling and elevate its outreach to residents and businesses.

The City is looking at several potential locations for recycling drop-off centers. The Jones Point Recycling Center will remain open during the Woodrow Wilson Bridge construction, and the City plans to develop new drop-off sites to maintain options for multi-family and apartment communities. The City has prepared a report to identify several options for recycling computer parts and other used electronics equipment, and plans to implement an electronics recycling program in 2001.

The City participated in America Recycles Day and developed an awards program for residents demonstrating outstanding participation in recycling. The City also continued its semi-annual program of "Household Hazardous Waste Collection Day" and achieved a record level of participation (1,165 vehicles dropped off hazardous waste materials).

Financing Solid Waste Services:

The Waste Disposal Trust Fund, which was established by the Jurisdictions and funded by net Facility revenues from the late 1980's to the late 1990's, had a balance of \$10.8 million as of June 30, 2000. This is \$1.4 million less than at June 30, 1999. However, with increased Facility costs and the need to make payments to cover the difference between contractual obligations (generally operating costs and debt service) and revenues earned by the facility, the \$10.8 million is forecast to be drawn upon annually and then depleted as early as fiscal year 2005, unless new funding mechanisms are created. How excess bond proceeds from the retrofit can be used could extend the time frame when depletion of this fund is anticipated.

During calendar years 1995-2000, waste deliveries to the Facility averaged approximately 324,000 tons per year, but were lower in 1996 and 1997 due to competing, lower priced disposal facilities in the region. Waste flow to these competing outlets increased after a 1994 U.S. Supreme Court decision limiting the ability of local and state governments to control the flow of waste to designated facilities through local ordinances. This loss of waste (and revenue) has been one of the challenges faced by the Jurisdictions. However, by using pricing strategies to keep waste haulers at the Facility, almost 329,000 tons of waste were delivered to the facility in calendar year 2000.

This Facility has reliably processed over 3.8 million tons of solid waste since 1988. The electricity produced by this Facility is equivalent to the power to operate approximately 23,000

homes. The Facility's electricity purchase agreement with Virginia Power (now Dominion Power) that contained a guaranteed "minimum" price expired in 1995. Since then, due to electricity market rates dropping, the price paid by Dominion Power has been below this "minimum" price, from approximately \$27 per ton of waste processed in 1993 to less than \$18 per ton of waste processed in 2000. Recently, with electricity rates increasing, the Facility's electricity revenues have increased to \$22 per ton.

Planning for the Future:

In order to keep the finances of the Facility sound over the long term, there are a number of policies that the Jurisdictions will need to consider. First, the Jurisdictions have urged, and should continue to urge, Congress to enact the necessary statutory changes to reinstate flow control for those solid waste facilities that were established when flow control was a generally recognized a public policy. Legislation has been periodically introduced in Congress to restore flow control, but to date hearings have not been held. However, the leadership of the key committees in Congress that handle flow control has changed in 2001 and it is possible that hearings could be held, and flow control legislation could be considered. With interstate commerce of solid waste an active legislative issue, it is possible that flow control could be taken up as part of that legislative debate. Also, the Bush Administration's new federal energy policy has identified waste-to-energy facilities as energy smart, environmentally sound, and an energy strategy that should be encouraged.

The second major policy area to address is how any potential facility operating deficit that occurs in FY 2005 or later can be addressed. At the City Council Retreat last fall, a major study of commercial solid waste policies and practices was proposed to determine if the creation of Jurisdiction contracted-out, unified commercial collection systems would produce sufficient benefits to warrant a change in how commercial waste is handled in the Jurisdictions. This study is underway, in cooperation with Arlington County and should be completed this coming fall.

ATTACHMENT: *Partners for Progress, Environmental Stewardship in Waste Management programs*

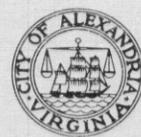
STAFF:

Richard J. Baier, P.E., Director, Transportation & Environmental Services
Mark Jinks, Director, Assistant City Manager

Partners for Progress

Environmental stewardship in waste management programs

21
6-26-01



COVANTA
ENERGY



The Alexandria/Arlington
Waste-to-Energy Facility

Introduction

In 1983, the City of Alexandria and Arlington County ("the Jurisdictions") forged a partnership for managing municipal solid waste¹ and created a cost-effective system that minimizes the reliance on landfilling and emphasizes the recovery of energy and materials.

Working through the City of Alexandria Sanitation Authority and the Arlington County Solid Waste Authority and their contractor, Covanta Alexandria/Arlington, Inc. ("Covanta"), the Jurisdictions financed and constructed the Alexandria/Arlington Waste-to-Energy Facility (the "Facility"). Since 1988, this 975 tons-per-day plant, located on Eisenhower Avenue in the City of Alexandria, has been reliably processing municipal solid waste from the Jurisdictions and converting it into electricity. The Facility is the centerpiece of the Jurisdictions' solid waste management system of waste reduction, collection, recycling, processing and disposal.

The Jurisdictions are parties to a Waste Disposal Trust Fund Agreement, which established a Waste Disposal Trust Fund that pays for certain solid waste man-

agement system costs of the Facility, including Facility improvements.

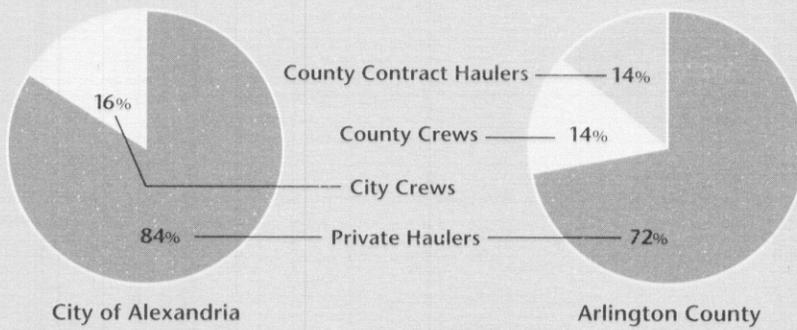
The Jurisdictions are obligated under their contract with Covanta to deliver at least 225,000 tons per year of acceptable waste to the Facility or pay a shortfall fee. Overall, the Facility has capacity to process 356,000 tons annually. While confronting many challenges, the Jurisdictions have met their obligation, and have continued to work closely with each other and Covanta to maintain a stable Facility operation, respond to dramatic changes in the waste management industry, and protect and improve the environment.

Over the last two years, the Jurisdictions and Covanta have made Facility improvements in response to the 1990 Amendments to the federal Clean Air Act and their commitment to improving air quality in the region. These substantial Facility improvements, funded through a \$46.1 million revenue bond issue, include one of the most modern, advanced emissions control systems of any existing waste-to-energy facility. Additional landscaping upgrades are being added in 2001 to further

enhance Facility aesthetics and benefit its neighbors. Now, the Jurisdictions face additional challenges and opportunities in maintaining a reliable, cost-effective, environmentally sound municipal waste management system. Needs associated with expanding waste reduction and recycling; assuring the waste supply to the Facility; responding to the deregulation of the electric power industry; and preserving the economic stability of the Trust Fund must be met. The Jurisdictions have been solid in their commitment to progress and environmental stewardship, and diligent in their planning for the future. Through their continued vigilance and partnership, they plan to meet the challenges.

This Report provides an overview of the Jurisdictions' solid waste management system; describes the improvements to the Facility; identifies new programs and services implemented and planned to advance waste reduction and recycling, and outlines the initiatives under consideration by the Jurisdictions to meet future needs in this dynamic, highly regulated environment.

¹ Municipal solid waste generally includes non-hazardous garbage, trash, and other waste generated in households, commercial and business establishments, institutions, and light industries.



Solid Waste Collection

Both municipal and private haulers collect solid waste in the Jurisdictions

Solid Waste Management in the Jurisdictions

Solid Waste Generation

The Jurisdictions have experienced substantial population growth in the last 20 years. Continued growth is projected, with population rising from an aggregate level of approximately 319,000 in 2000 to 336,000 by 2010.

This growth, coupled with a location as a major employment center for the federal government, trade associations, and many national corporations, contributes to a sizeable municipal solid waste stream and an increased demand for collection and disposal services. Solid waste generation (net of recycling) in the Jurisdictions is forecast to increase from approximately 320,000 tons in 2000 to over 338,000 tons in 2010.

Solid Waste Collection

Both municipal and private haulers collect solid waste in the Jurisdictions, as illustrated in the charts above. In Alexandria, residential properties of four units or less are required to utilize the City's solid waste collection service. This includes approximately 18,600 service locations and about 300 small commercial establishments that were served prior to 1983 when the current requirements were set by City Council. Other commercial and multi-family property owners contract with private haulers.



Alexandria delivers recycling bins to residents.

In Arlington County, one-family and two-family dwellings are required to participate in the County's waste collection system. Town house developments may participate under certain conditions. Other multi-family and commercial businesses must contract with private contractors. The County provides collection service to approximately 31,700 customers through a combination of County and County-contracted collection crews.

Much of the Jurisdictions' population resides in high-rise apartments and town houses requiring the specialized collection service and equipment of private haulers. In addition, waste generated at businesses, government offices, and institutions is generally collected by private collectors.

Waste Reduction and Recycling

The City of Alexandria and Arlington County operate comprehensive recycling programs that divert a significant portion of the Jurisdictions' waste from disposal. These programs foster the goal of resource conservation.

The City's recycling program includes weekly curbside collection by City crews of newspaper and commingled recyclables (glass, cans, and plastic containers) and the maintenance of three drop-off centers for these same materials. The City also has 15 newspaper recycling stops as well as recycling of its own office paper. Leaves are collected at the curb for recycling in the fall.

The County's recycling system includes the curbside collection of commingled materials, scrap metal, and mixed paper, as well as brush and leaves for mulching. In addition, the County maintains two drop-off centers for recyclables and provides County facility collection of office paper, corrugated containers, and aluminum. The County also recycles used concrete and asphalt.

The costs of the Jurisdictions' recycling programs are funded through user charges to residences, revenue from sale of recyclables, and other sources.



Old Town Alexandria

Solid Waste Management in the Jurisdictions (continued)

New Initiatives and Expanded Programs in Waste Reduction, Reuse, and Recycling

In 2000, the Jurisdictions implemented several new programs and services and expanded others to increase waste reduction and recycling and elevate their outreach to residents and businesses. Further initiatives are planned for 2001. A brief overview of these programs and initiatives in each Jurisdiction is provided below.

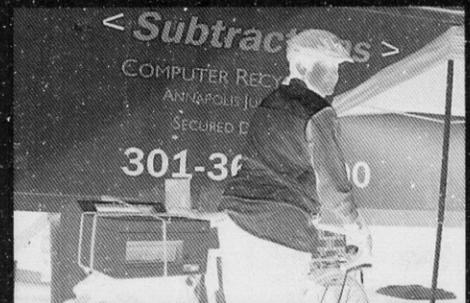
Arlington County

- **County Office Paper Recycling**
The County expanded its office paper recycling program to include additional sites, and doubled the tonnage collected since January, 2000.
- **North County Recycling Center**
The County's Waste Reduction Office sited and constructed a new recycling drop-off center on North Quincy Street near Ballston to replace the Clarendon Fresh Fields site, which closed in May. The new site accepts both commingled containers and paper.
- **Electronics Recycling**
The County expanded its annual Environmental Extravaganza to include electronics recycling. Computers, televisions, printers, copiers, speakers, pagers, and cell

phones were accepted for recycling. The event was successful, and over 350 electronics components were recovered for recycling.

- **Brochures and Publications**
The County updated the waste reduction section of the Solid Waste Division's Guide to Services, developed a Waste Reduction Tips brochure, and prepared Green Buildings and Buy Recycled brochures.
- **Outreach/Education**
Many outreach and education activities were conducted and various events were held. Among these were displays at the Arlington County Fair; Environmental Extravaganza featuring household hazardous waste collection and recycling/reuse opportunities for bicycles, textiles, electronics, and building supplies; America Recycles Day; Clarendon Day; the Washington-Lee High School Resource Fair, and several presentations and/or exhibits at schools, parks, libraries, recreation centers, and local fairs.

In addition, Arlington County worked with the media to promote its facilities, services and new programs on television, and through the press, plus updated its website with expanded features such as scrolling text to announce its new drop-off center.



Electronics Recycling at Arlington County's annual Environmental Extravaganza.

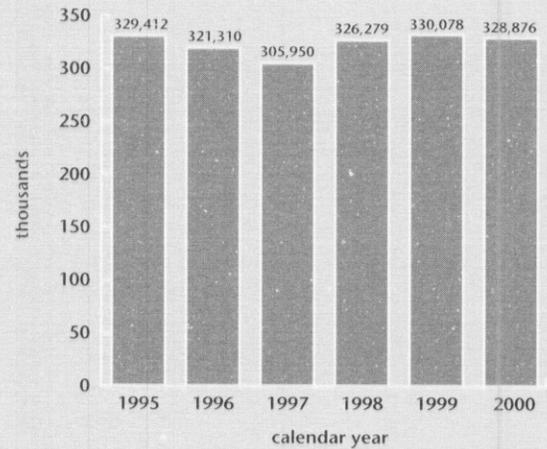
The County continued its technical support to commercial and multi-family properties, processing approximately 2,000 recycling plans and conducting site visits to bring properties into compliance with County recycling ordinances. The County also processed more than 50 hauler reports to assist in the determination of recycling quantities from the multi-family and commercial sectors.

City of Alexandria

- **Electronics Recycling**
The City prepared a report to identify several options for recycling computer parts and other used electronics equipment, including several local charities that accept donated computer equipment. An electronics recycling program is planned for 2001.
- **New Recycling Drop-Off Centers**
Several potential locations for new

Solid Waste Deliveries to Waste-to-Energy Facility

Waste deliveries to the Facility averaged approximately 324,000 tons per year during this period, but were lower in some recent years due to competing, lower-priced disposal facilities in the region.



drop-off centers are being identified and evaluated. The Jones Point Recycling Center will remain open during the Woodrow Wilson bridge construction, and the City plans to develop new drop-off sites to maintain options for multi-family and apartment communities.

- **School Education Programs**

The City's Office of Recycling developed a special recycling educational program designed for elementary students from the third through fifth grade. It includes a presentation that can range from 30 to 60 minutes, a video explaining recycling, and a unique "environmental jeopardy game" to challenge students about their knowledge of recycling. The Office of Recycling is currently engaging all City elementary schools to apply its new educational program in 2001.

- **Expanded Outreach to Neighborhood and Community Groups**

The City is expanding its outreach through increased promotion of curbside service and drop-off centers to City neighborhood associations and various community groups. Special mailings were completed, and presentations are being scheduled as a result of the enthusiastic response from residents.

- **Promotion to Multi-Family Communities**

The City designed a new brochure about recycling opportunities for multi-family communities that do not provide recycling services. The brochure was distributed to building managers and also used as an enclosure in information packets provided to new residents.

- **Expanded Recycling in City Departments**

The City reviewed the recycling programs in all City departments and is now developing recommendations for improved services and enhanced outreach to employees to increase waste reduction and recycling.

- **Special Events**

The City participated in America Recycles Day and developed an awards program for residents demonstrating outstanding participation in recycling. The City also continued its semi-annual program of "Household Hazardous Waste Collection Day" events and achieved a record level of participation (1,165 vehicles in total). The City is evaluating the potential to increase this special service to six times per year.

Waste-to-Energy Facility

The majority of municipal solid waste from the Jurisdictions, after waste reduction and recycling, is delivered to the Waste-to-Energy Facility. Employing "mass burn" technology to combust municipal solid waste at high temperatures and produce steam, which is then used to generate electricity for sale to Virginia Power, this Facility has reliably processed over 3.8 million tons of solid waste since 1988. The electricity produced by the Facility is equivalent to the power to operate approximately 23,000 homes. The chart above shows waste deliveries to the Facility in calendar years 1995-2000.

Waste deliveries to the Facility averaged approximately 324,000 tons per year during this period, but were lower in some recent years due to competing, lower-priced disposal facilities in the region. Waste flow to these competing outlets increased after a 1994 U.S. Supreme Court decision limited the ability of local and state governments to control the flow of waste to designated facilities through local ordinances. This loss of waste (and revenue) has been one of the challenges faced by the Jurisdictions and is discussed later.

Waste-to-Energy Process



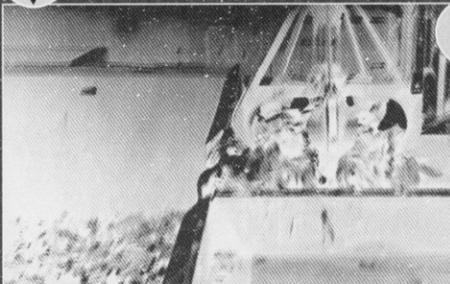
Scale-House

The first stop for trucks after entering the Facility is the scale-house. Haulers are charged a fee based on the weight of their load and the type of waste they are transporting.



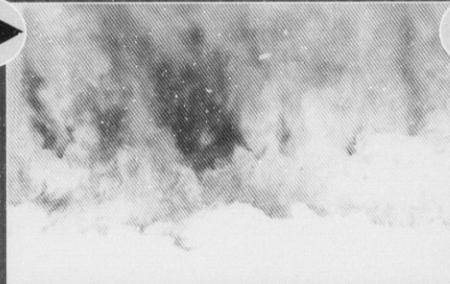
Tipping Hall

Trucks dump their loads. Operators screen incoming material to keep inappropriate wastes out of the combustion process.



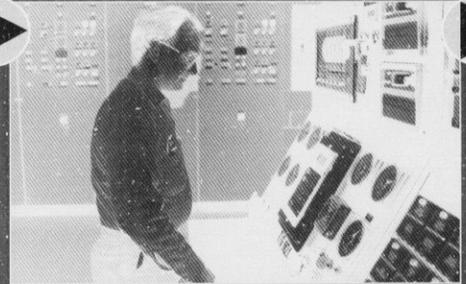
Waste is moved to combustion

Overhead cranes move the waste from the pit to the charging hoppers, nearly three tons at a time, for introduction into the combustion chambers.



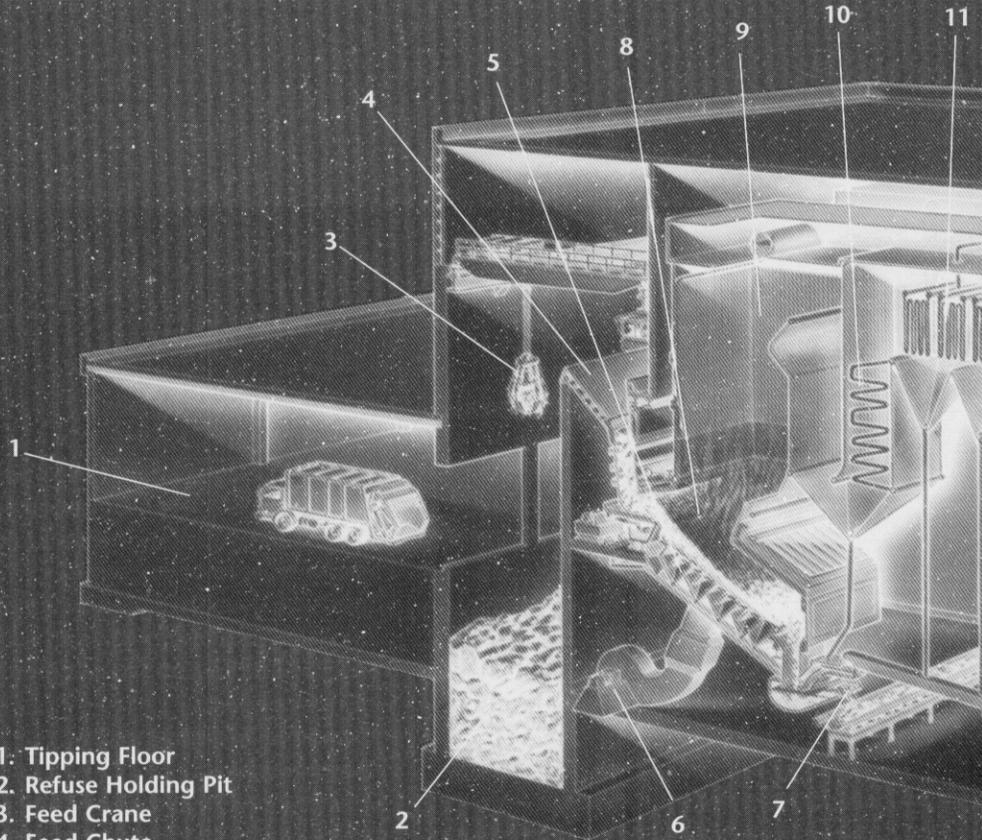
Combustion Chamber

Waste is burned on the patented Martin Grates, where finger-like devices are constantly exposing the unburned waste to fire, ensuring the most efficient combustion.



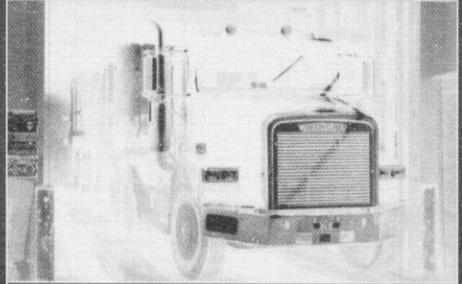
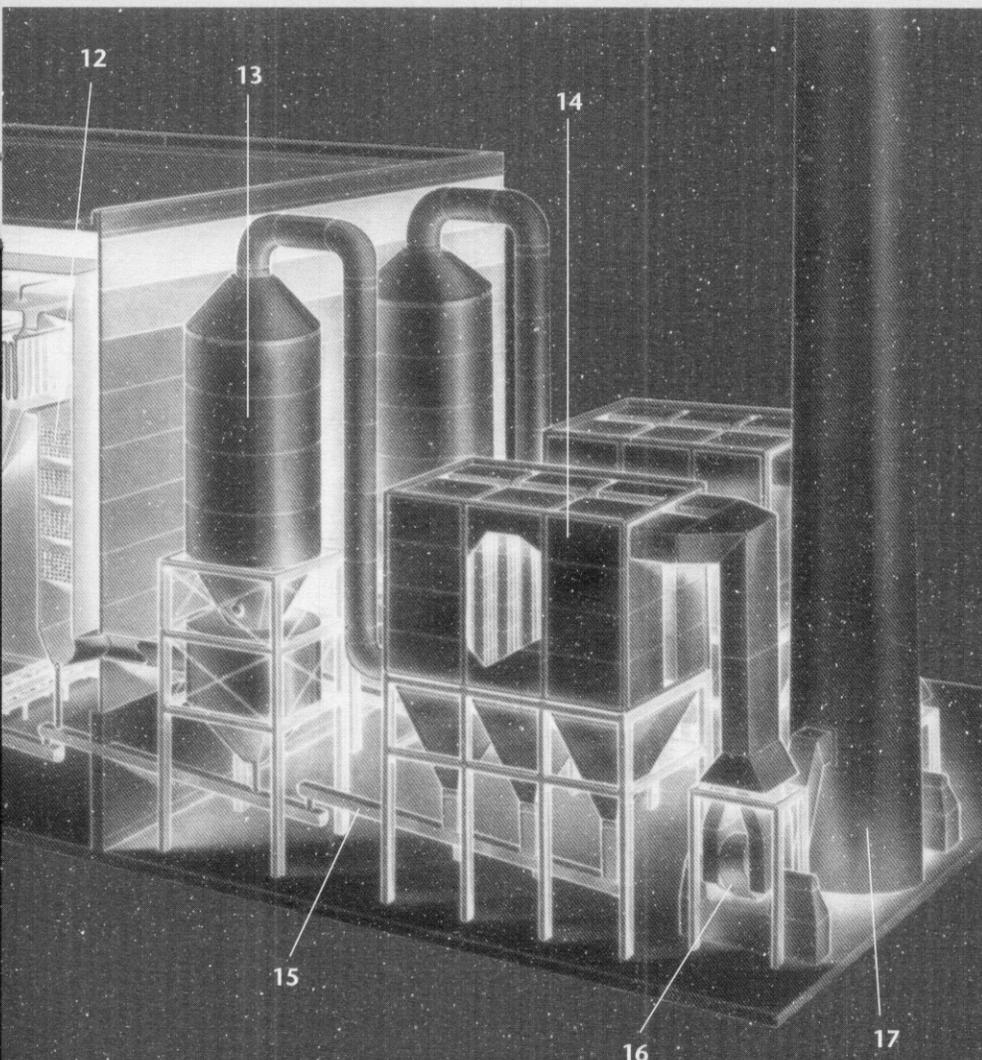
Control Room

Highly trained personnel monitor operating conditions in the entire facility, including the state-of-the-art continuous emissions monitoring system.

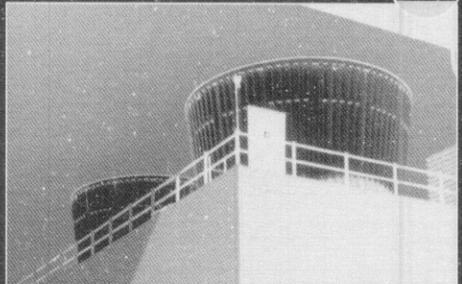


- 1. Tipping Floor
- 2. Refuse Holding Pit
- 3. Feed Crane
- 4. Feed Chute
- 5. Martin Stoker Grate
- 6. Combustion Air Fan
- 7. Martin Residue Discharger and Handling System
- 8. Combustion Chamber
- 9. Radiant Zone (furnace)
- 10. Convection Zone
- 11. Superheater

- 12. Economizer
- 13. Dry Gas Scrubber
- 14. Baghouse
- 15. Fly Ash Handling System
- 16. Induced Draft Fan
- 17. Stack



Ash Management
Ash is collected from the combustion chamber, scrubbers and baghouse to be disposed of at an approved landfill.



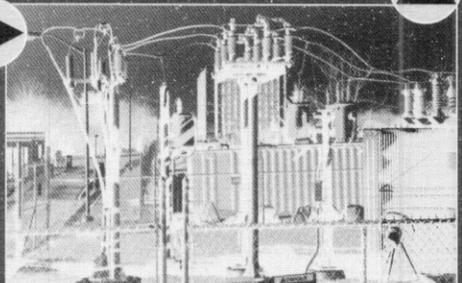
Steam Condensing & Water Reuse
Large fans, used in conjunction with a water spray system, cool and condense the steam produced for electricity generation. The condensed steam, reconverted to water, is then pumped to the boilers to generate additional steam, completing the cycle.



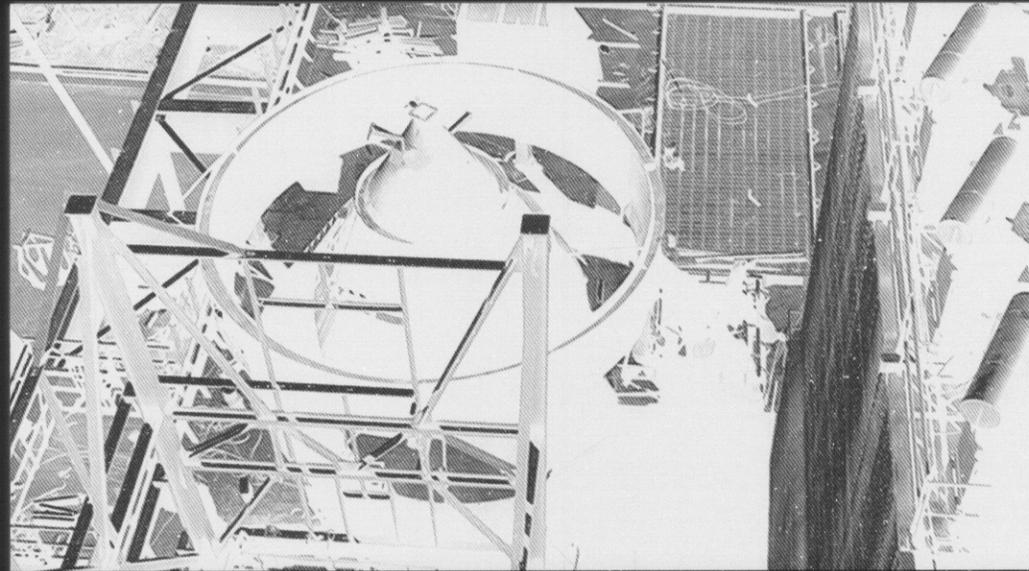
Air Pollution Control
The Facility's new emissions control system can process emissions to exceed 1990 federal Clean Air Act requirements. The first of four stages is where anhydrous ammonia injection turns smog-causing nitrogen oxides into nitrogen and water.



Scrubbers & Fabric Filter Baghouse
Hot gases, after passing through the boiler, are washed with lime slurry to stabilize acid gases. Next, activated carbon scrubs out mercury, dioxin, furan and other pollutants. In the final stage, minute particles, not visible to the human eye, are filtered out by some two thousand cylindrical bags (as seen here).



Electricity Generation
Electricity, enough to power some 23,000 homes, is distributed to the power grid via Virginia Power's onsite transformer.



Facility modifications under construction.

Improvements to the Waste-to-Energy Facility

In response to the federal Clean Air Act Amendments of 1990 and the Jurisdictions' desire to make improvements to the Facility that would ensure the highest level of environmental protection, reduce impacts and provide benefits to the neighborhood, the Jurisdictions and Covanta have undertaken a Facility retrofit program, financed by a \$46.1 million revenue bond issue. These improvements are described below.

Advanced Emissions Control System

Completed and successfully passing performance testing in 2000, the new emissions control system is one of the most modern, advanced emission control systems of any existing waste-to-energy facility in the United States. Included in this new system are acid gas scrubbers and fabric filters, a carbon injection system, and continuous emissions monitoring equipment.

Other Facility Changes

During this recent retrofit, the Facility has also been equipped with a new

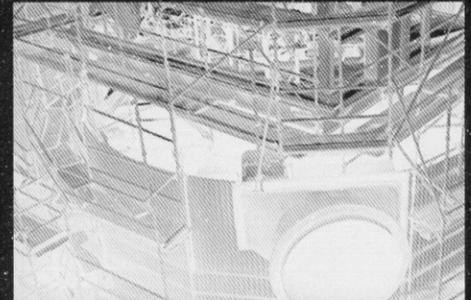
computerized combustion control system and new scales and scale-house. Several general building repairs also have been completed.

Neighborhood Improvements

As part of the Facility modifications, several Facility improvements that benefit the neighborhood have been installed and others are underway and will be completed in 2001. Improvements completed include new windows in the Facility; new stack siding; a new entrance; Facility painting; and on-site access road to reduce traffic congestion. Fencing, noise shielding, and landscaping improvements are being undertaken in 2001.

Covanta, as part of its outreach to the community, has also initiated a series of school outreach programs.

The efforts by the Jurisdictions and Covanta, to reduce Facility impacts on the neighborhood and maintain the Facility as a good neighbor, have been recognized by local residents and business owners. Among them, Sharon



Facility modifications under construction.

Hodges, Executive Director of the Eisenhower Partnership, noted:

"...The biggest impact to the area has been the change in truck access to the Facility. This has made a tremendous difference in traffic flow, extremely helping to reduce the congestion in traffic heading toward Van Dorn Street. We are looking forward to the changes in the landscaping, and the new fencing and signage. This should be a huge improvement and help the Facility better fit into the neighborhood."

Federal Clean Air Act Amendments and a 1994 Supreme Court decision have created significant challenges for the Jurisdictions.



Responding to the Challenges

The Jurisdictions have encountered many challenges in maintaining a reliable, stable solid waste management system, particularly in recent years and throughout a period of dramatic change in the regional and national waste industry. Several developments have impacted the costs of operating and maintaining the Jurisdictions' system and its revenues, and the Jurisdictions have successfully addressed these needs through a sound management strategy. Now, the Jurisdictions are diligently planning for the future and evaluating various options as they formulate additional changes necessary to stabilize both waste flow and revenue for the Facility. This section describes the most significant challenges they have faced and the anticipated future needs to ensure the economic stability of the solid waste management system.

Meeting the Clean Air Act Amendments of 1990

The retrofit modifications that have enabled the Facility to meet 1990 Amendments to the federal Clean Air Act were financed through a \$46.1 million revenue bond issue. The advanced emissions control system is now operating, and the remainder of the improvements will be complete in 2001. Operating costs have risen with

this additional debt and maintenance of this new emissions control system and sophisticated emissions monitoring equipment. These costs, to be fully incurred in 2001, result in the need to increase revenues to the Facility.

Ensuring the Waste Supply

The Jurisdictions are obligated to deliver at least 225,000 tons per year of acceptable waste to the Facility or pay a shortfall fee pursuant to their agreement with Covanta. In recent years, due to factors outside the Jurisdictions' control, their ability to ensure this waste supply has been impaired. These factors are discussed below.

The Carbone Decision and Competing Mega – Landfills

During recent decades, many communities enacted ordinances that controlled the flow of solid waste by designating the facility or facilities to which solid waste generated within their boundaries must be taken for processing or disposal. The purpose of this "flow control" legislation was to ensure that sufficient amounts of waste were received to cover the costs of operating the facilities and retire the debt issued to finance them. Flow control is considered to be an essential tool in planning for the long-term management of

solid waste because it guarantees the economic integrity of the system once it is operating. Use of flow control has been particularly important for waste-to-energy facilities, since they depend on the waste supply not only for service fee revenues but also for the conversion of waste to electricity, which is sold to help offset the system costs. In a 1994 landmark decision, *Carbone vs. Town of Clarkstown, N.Y.*, the U.S. Supreme Court ruled that legislated flow control, where it interferes with interstate commerce, is a violation of federal law. Following this decision, local flow control ordinances became invalid. As a result, waste flows to competing facilities, particularly those in adjoining or nearby states, sharply increased. In many cases, this development seriously jeopardized the economic stability of the facilities from which the waste was diverted.

This situation has been especially troublesome to local governments in the Washington, D.C. metropolitan region. Waste has been diverted by private haulers from established facilities to private transfer stations in the District, Maryland and Northern Virginia from which it is transported to large, private landfills ("mega-landfills") in Virginia and Pennsylvania. Many of these land-



Waste supply contracts with private haulers have helped to stabilize Facility revenues.

Responding to the Challenges (continued)

fills were built around the time of the Carbone decision, many years after the Jurisdictions had planned, financed, and constructed the Facility.

In fact, at the time this Facility was being planned, landfill capacity in the region and throughout the nation was rapidly decreasing, and a disposal capacity crisis was projected.

Today, a significant quantity of waste generated in Northern Virginia, Washington, D.C., and Maryland flows to these mega-landfills. There is excess capacity in these sites, and the owners, primarily the large waste service companies, have deeply discounted disposal pricing because of the over capacity and the desire to divert waste from competing disposal and processing facilities like the Facility. In the recent past, the disposal fee at some of these landfills has been less than half the cost-based disposal fee charged at the Facility. As a result, private collectors have taken some waste from the Jurisdictions to these landfills, reducing the revenues needed to support the Jurisdictions' solid waste management system.

Responding to the Carbone Decision — Contracting for Waste Supply

In the wake of the Carbone decision and the pressures presented by the private transfer stations and mega-landfills in the region, Covanta, working with the Jurisdictions, successfully negotiated waste supply contracts with two of the major waste collectors in the City of Alexandria and Arlington County. The contracts ensure that waste collected in the Jurisdictions by these two large haulers will continue to be delivered to the Facility over the next several years, contributing to its economic stability. The Facility also receives a small amount of supplemental non-hazardous waste that generally originates outside of the Jurisdictions, from generators who require secure and complete destruction of the waste. Those generators pay a significant premium to have their waste disposed of at the Facility. Additionally, week-to-week, the Facility may have a small amount of excess capacity. In such instances, Covanta has the flexibility to enter into "spot" delivery arrangements with regional haulers outside of the Jurisdictions to deliver additional waste. In addition to the tipping fee revenue, the processing of this waste

brings with it revenue from the sale of electricity produced. Combined, these additional revenues help to reduce the Jurisdictions' financial obligations to Covanta.

Efforts to Restore Flow Control

The Jurisdictions have been working with their congressional delegation, both in the House and Senate, to support proposed national legislation that would restore flow control powers, and they renewed their efforts with the new Congress. However, there is no certainty that national legislation will be enacted, as there have been several bills introduced over the years without success. Therefore, the Jurisdictions recognize that additional contracts for waste supply and/or other funding approaches are the primary means to address the longer-term revenue needs of the Facility.

Electricity Sales from the Facility and the Uncertainties of Deregulation

Electricity from the Facility is sold to Virginia Power under a long-term agreement. The agreement provides for an "energy" payment and a "capacity" payment as components of the purchase price. The capacity payment

Electricity Sales Revenues to the Facility

(\$/ton of Waste Processed)

year	
1993	27.15
1994	25.09
1995	26.04
1996	16.59
1997	15.29
1998	14.95
1999	16.86
2000	17.65

Revenues from the sale of electricity have decreased significantly, dropping from an average of approximately \$27 per ton of waste processed in 1993 to less than \$18 per ton of waste processed in 2000, as the market value of electricity declined.

results from Virginia Power being able to depend on the electricity from the Facility during periods of peak demand when power supply is most critical. The energy payment is based on the costs Virginia Power avoids by purchasing electricity from the Facility. The avoided costs are revised from time-to-time under a tariff approved by the State Corporation Commission.

In planning for the Facility, it was projected that future electricity prices would increase with rising energy costs. The Facility's electricity purchase agreement with Virginia Power contains a guaranteed "minimum" purchase price for energy, but only through December 1995. Since then, however, the price paid by Virginia Power has been below this "minimum" price. As a result, revenues from the sale of electricity have decreased significantly, dropping from an average of approximately \$27 per ton of waste processed in 1993 to less than \$18 per ton of waste processed in 2000, as shown above.

Electricity Sales in a Deregulated Market

Electric utility customers traditionally have been served by regulated "monopolies." Now, there is a national move-

ment from this rate-regulated environment to a deregulated, competitive retail and wholesale generation marketplace. Many states are implementing legislation designed to increase competition and provide for consumer choice of an electricity supplier.

A major policy resolution was passed at the U.S. Conference of Mayors annual meeting in June 2000, urging federal and state law makers to ensure that any utility restructuring legislation like deregulation includes provisions to promote renewable energy in all forms, including waste-to-energy.

The Commonwealth of Virginia has legislated the restructuring of the utilities for the phasing in of a deregulated market for the generation and transmission of electricity. The Virginia Electric Utility Restructuring Act (SB 1269) was passed in March of 1999, which provided for consumer choice pilot programs in selected areas, including Fairfax County, since January 2001. According to the Act, state-wide deregulation is to begin implementation in January 2002 and be completed by January 2004. The State Corporation Commission (SCC) is considering accelerating this by one year to attract more

energy suppliers that are requesting access to the entire State's market to make participation more feasible.

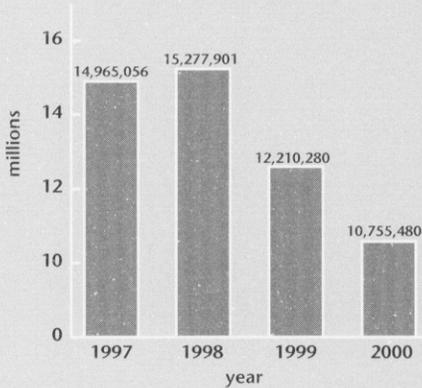
The Act provides for the recovery of stranded costs through capped rates for customers staying with the incumbent utility and through a "wires charge" for those who switch to competitive suppliers.

Deregulation of the electric power industry in Virginia could create opportunities for the Jurisdictions. The Facility, as a power generator, could have an expanded geographic base and possibly export power. Waste-to-energy also could be given special treatment as a renewable fuel or "green power" source in certain markets.

However, there are many uncertainties and issues regarding developments in a future deregulated marketplace for the purchase of electricity at the retail level, including the means and terms by which the Facility could sell electricity to retail customers.

Covanta and the Jurisdictions are continuing to evaluate this changing marketplace and the potential impacts on the Facility.

Trust Fund Balances



**Alexandria/Arlington Waste Disposal Trust Fund
Statement of Revenue, Expenditures and Changes in Fund Balance
for the year ended June 30, 2000 (With Comparative Totals for 1999)**

	1999	2000
Revenue: Total Revenue	\$2,287,671	\$2,527,857
Expenditures: Total Expenditures	5,355,292	3,982,657
Revenue under Expenditures	(3,067,621)	(1,454,800)
Fund Balance, beginning of year	15,277,901	12,210,280
Fund Balance, end of year	\$12,210,280	\$10,755,480

The Waste Disposal Trust Fund: An Overview

The Waste Disposal Trust Fund ("the Trust") was established by the Jurisdictions when the Facility was constructed. The City of Alexandria and Arlington County each have a 50 percent ownership interest in the Trust; however, because Arlington County performs the administrative functions for the Trust, it is a component unit of Arlington County and the financial position and results of operations of the Trust are reflected in the comprehensive annual financial report of Arlington County.

Revenues to the Waste Disposal Trust Fund generally come from two sources: (1) amounts payable to the Jurisdictions by Covanta under its agreement with the Jurisdictions, and (2) a portion of the real property taxes levied on the Facility by the City of Alexandria.

Expenditures such as capital costs of repairs, replacements and changes to the Facility, and waste recycling programs which benefit the Jurisdictions are eligible for reimbursement through the Trust. In fiscal year 2000, the Trust has been used primarily to provide "tipping fee differential payments," which cover the difference between

contractual tipping fees paid by haulers under special contracts and the standard cost-based tipping fee. It can also be viewed as the difference between the operations and maintenance costs and debt service of the Facility in comparison to what the Facility can charge in the solid waste marketplace.

Six Trustees administer the Fund: the Alexandria City Manager and two designees, and the Arlington County Manager and two designees. These Trustees are experienced in finance and accounting, law, government administration, and solid waste management. They rely on professional advisory and consulting services, as necessary, in such matters as investments, securities and tax law compliance, and engineering. The Trustees are committed to ensuring that the citizens of Alexandria and Arlington receive high quality service through a fiscally and environmentally sound solid waste management system.

The Waste Disposal Trust provides for the prudent management of its cash resources, with investment objectives and procedures to ensure compliance with State law and the bond indentures

and to maintain solvency of the Fund. Trust Fund balances at the end of the last four fiscal years are shown above.

The Trust Fund balance was approximately \$10.8 million as of June 30, 2000, but with increased Facility costs and the need to make payments to Covanta for the disposal fee differential under waste supply agreements with private haulers, demands on the Trust Fund have elevated substantially, and the reserves are forecast to be depleted as early as fiscal year 2005, unless new funding mechanisms are created.

Trust Fund Revenues are Used to Support:

- Facility service charges and tipping fee differential payments;
- Funding of certain repairs and replacements at the Facility;
- Trust Fund administrative and operating expenses; and
- Independent public accounting fees.

Recycling workshop with City of Alexandria school children and "Robbie The Recycling Squirrel."



Planning for the Future



Recycling is a key component in planning for the future.

Costs at the Facility have risen due to the additional debt and increased operating and maintenance expenses made necessary by the new air pollution control required by the federal Clean Air Act amendments and other Facility improvements.

Additional revenues will be needed to support these increased costs and to maintain the economic stability of the Facility. Substantially increasing the disposal fee at the Facility is an option, but this option is not likely to be feasible, at least not as the only source of additional revenue, as long as the Jurisdictions lack authority to enforce "flow control" ordinances. Any significant increase in disposal fees at the

Facility would likely cause haulers to take waste to other disposal locations.

Part of the Jurisdictions' waste supply commitment to Covanta is met through agreements that the Jurisdictions and Covanta have arranged with certain private haulers. These agreements only extend over the next few years and reflect reduced disposal fees.

The Waste Disposal Trust Fund has been paying the difference between disposal charges required by the agreement with Covanta and amounts collected under Covanta's contracts with these private haulers. Under current projections and without additional source(s) of revenue, the Trust Fund may only be able to support these payments through fiscal year 2005, before Trust Fund balances are exhausted.

The Jurisdictions have sought out opportunities to reduce costs where possible. Recognizing an opportunity to lower interest costs on the outstanding debt for the Facility, given changes in the market for municipal bonds, the Jurisdictions arranged in 1998 for the

refunding of approximately \$62 million of the bonds that were initially issued in 1984 to finance facility construction. This refunding will result in savings of more than \$8.9 million over the term of the bonds, and will help stabilize the costs of the Facility.

There are three primary, potential options to help meet the future increased revenue needs of the Facility. These include (1) an increase or reallocation in the real estate tax; (2) the imposition of an environmental investment charge as a special assessment on property owners; and (3) the creation of a "franchise" system for waste haulers. A franchise system would allow the Jurisdictions to select waste haulers for designated collection areas and require, through franchise agreements, that the franchised haulers use the Facility and pay the required disposal fees.

In addition to the on-going evaluation of these revenue options, the Jurisdictions, with Covanta, will be evaluating other opportunities to contract for waste supply, including the potential to extend existing contracts



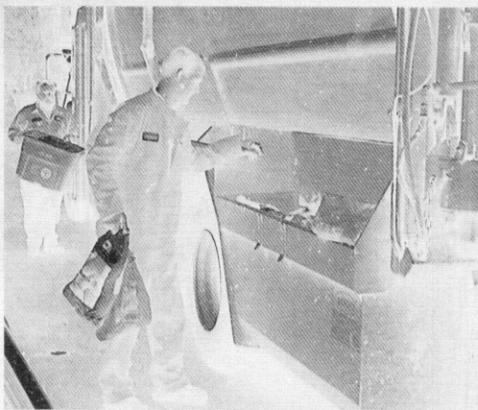
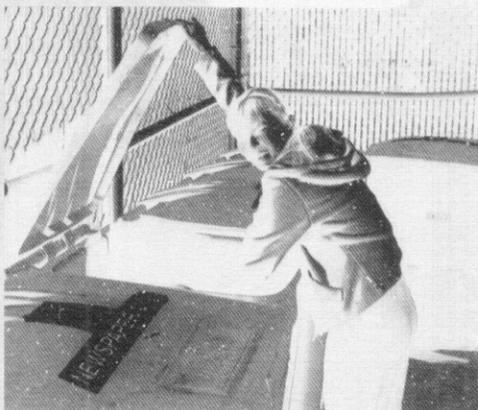
Arlington County and the City of Alexandria are working toward a green environment.

Planning for the Future (continued)

with private haulers. They will also be assessing how the unfolding developments in electric power deregulation can best be applied to open potential new markets and/or increase electricity revenues for the Facility. The Jurisdictions will maintain their efforts to gain legislation to restore flow control powers and will continue to search out opportunities for cooperation with other communities in the region that could increase levels of recycling and/or reduce the costs of recycling.

The Trustees, along with the leadership of the Jurisdictions, are committed in their efforts to plan for the future, meet the challenges they face, access new opportunities and apply management solutions that are in the best interests of their residents and businesses. The City of Alexandria and Arlington County are dedicated to maintaining a financially stable and environmentally sound solid waste management system through their partnership for progress.





For more information regarding the solid waste management program in the Jurisdictions, please contact:

City of Alexandria

Department of Transportation
& Environmental Services
703-838-4966

http://www.ci.alexandria.va.us/city/tr_es_ut_idx.html

Arlington County

Department of
Environmental Services
703-228-4488

<http://www.co.arlington.va.us/des/index.htm>

Covanta Energy

For more information regarding Covanta Energy, contact 703-370-7722 or see

http://www.covantaenergy.com/energy/facilities/waste_to_energy/alexandria.php4

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