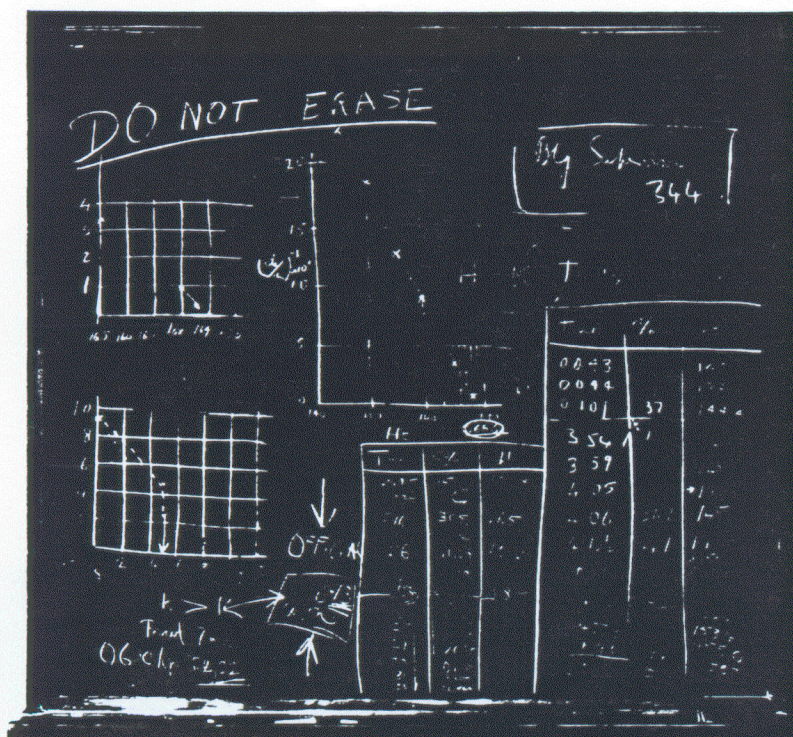


1995-1996

ANNUAL REPORT



ATOMIC ENERGY OF CANADA LIMITED

Cover

The historical photo on the cover shows the readings recorded by Dr. W.B. Lewis, head of the Atomic Energy Research Division of the National Research Council, on a blackboard that indicates the NRX reactor started up for the first time on July 22, 1947 at 6:13 a.m. Dr. Lewis subsequently was scientific vice-president of AECL when it was incorporated in 1952.

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Corporate Profile

Atomic Energy of Canada Limited (AECL) was established in 1952 as a Crown corporation and reports to Parliament through the Minister of Natural Resources. AECL develops, markets and manages the construction of CANDU® power reactors and MAPLE research reactors.

AECL's accomplishments include the development of a variety of products and services that are now in use worldwide. The flagship product, the CANDU reactor, supplies one-fifth of Canada's electricity and is an important component of the energy programs in five other countries.

The corporation continues to build upon these attainments by advancing the research and engineering that underlie the reactor products, by supplying R&D and engineering services to CANDU plants at home and abroad, and by offering radioactive waste management products and services to a range of customers. The science and technology that support the reactor business have made significant contributions that are recognized internationally. They have also enhanced national science and energy objectives and contributed to the evolution of Canada's nuclear policies.

AECL's product development strategy continues to consolidate its position as a leading supplier of full-scope nuclear power capabilities. This gives it the capacity, in collaboration with Canadian and international partners, to capture a substantial share of the emerging global nuclear power market with a competitive and superior product.

AECL is dedicated to meeting its customers' needs, as well as to continuous improvement and sustainable development. Based on partnership, the CANDU success is a result of close collaboration with Canadian utilities and the private sector, and continues to make an important contribution to job and wealth creation.

The company currently employs 3,880 people at locations in five Canadian provinces and in offices in nine other countries.

Letter of Transmittal

The Honourable
Anne McLellan, P.C., M.P.
Minister of Natural Resources
House of Commons, Ottawa, Ontario

Dear Ms. McLellan:

In accordance with subsection 150(1) of the Financial Administration Act, I am pleased to submit the Annual Report of Atomic Energy of Canada Limited (AECL) for the fiscal year ended March 31, 1996, together with financial statements and the report of the Auditor General.

In 1995 AECL commemorated the 50th anniversary of the first atomic fission achieved in Canada. This year marks the 25th anniversary of the first CANDU-generated commercial electricity from the Pickering reactors. These milestones give us occasion to reflect on the successes of the past and the challenges of the future. They also highlight how the frontiers of knowledge have been extended into a universally applauded technology, a viable business, and a place at the forefront of research for the benefit of society.

AECL's mission is in harmony with the objectives of the Canadian government. It provides an energy option to generate electricity without doing ecological damage. Its research and development programs are the springboard for a \$6 billion-a-year nuclear industry with a substantial number of knowledge-based and high value-added jobs. Its products and services have enabled it to position Canada advantageously on the international scene. And its activities reflect the tenets espoused in the government's science and technology strategy.

Also, AECL's internationally recognized expertise continues to give Canada a strong voice in global endeavours to enhance nuclear safety and safeguards, and to turn swords into ploughshares.

With reduced R&D funding, AECL will be facing considerable challenges in the next several years. But I am confident that it has the management capability, the strong tradition of excellence, and the dedication and enterprise to be a successful corporation with preferred products and services. I am also confident that the right steps are being taken to achieve the company's long-range business goals.

This year I was pleased to welcome Mary Arnold, George Cooke, James McKee and Hugh Wynne-Edwards as new members of the board of directors. I wish to thank the outgoing members Edward Byrd, Ronald Grantham, Arthur Mauro and Fraser Mustard for their vigorous and valuable contributions.

The board of directors will continue to work with the shareholder to ensure that AECL maintains its international reputation and makes a durable and beneficial contribution to Canada.

Respectfully,



Robert F. Nixon
Chairman of the Board

President's Message

Reid Morden
President and Chief
Executive Officer

This year has been a pivotal one for AECL. As we passed the 50th anniversary of nuclear fission in Canada, it was clear that we had many successes to celebrate. Moreover, emerging challenges have intensified our resolve to make the second half-century of nuclear energy an era of unparalleled achievement.

During the past year we have continued to streamline our organization, to improve the efficiency and effectiveness of our operation, and to focus sharply on CANDU as the core business. We have also been concentrating upon the government's Program Review and with preparing for its impact upon AECL. The purpose of the review was to determine how to maintain a viable CANDU business for Canada, while reducing the cost to the shareholder. Its main outcome was the government's affirmation of its support of the CANDU business and AECL's leadership role in the Canadian nuclear industry. In turn AECL re-affirmed its CANDU focus and its determination to capture a major share of the global nuclear market. The review was a further step in AECL's transformation into an organization concentrated on the CANDU business. It's a business we know, and at which we excel.

The more tangible result of program review was the reduction of R&D funding by the federal government from \$174 million in 1996/97 to \$100 million in 1998/99. These funds will support only those programs that sustain and advance the CANDU business.

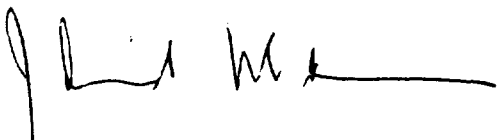
I am confident that we will have a successful commercial future. The global need for nuclear energy is induced not only by burgeoning populations, increasing urbanization and industrialization, and the aspirations of the developing nations. It is also driven by environmental imperatives because it is an energy source that reduces ecological strain.

Nuclear power is an energy option that generates electricity without emitting greenhouse or acid gases. While the use of fossil fuels is central to many of today's economies, the advantages of nuclear power as a force for sustainable development are being recognized to a greater extent than ever before. And CANDU is well-placed to secure a substantial share of the world market for nuclear electricity in the 21st century.

The latest nuclear power unit to come on line in the world is a CANDU - the Cernavoda unit 1 in Romania. It started up on April 16, 1996. The CANDU construction projects in Korea are proceeding well. The CANDU reactors in operation continue to give excellent performance. Ontario, which now gets 60 per cent of its electricity requirements from nuclear power, got outstanding results from its Darlington station in 1995. AECL works closely with Ontario Hydro in providing personnel and services to help achieve these high levels of performance.

The Darlington reactors are the precursors of the single-unit CANDU 9 reactor, which is a major element of AECL's commercial strategy. Also high on our agenda is the laying of the groundwork for an Irradiation Research Facility that will ultimately replace the NRU research reactor. Our research and product engineering is aimed at next-generation CANDU reactors that will exploit advances in technology to enhance safety, reduce costs and improve efficiency. One feature of that thrust is the development of advanced fuel cycles which take advantage of the unique flexibility of the CANDU reactor.

Maintaining a leading position in an intensely competitive environment will not be easy. While we already have a commanding international presence, we will make it stronger. We have robust strategic alliances and partnerships, in Canada and abroad, and we will reinforce them. With the right chemistry of cooperation and competition we will succeed and, working together, do better things. And we have the most imposing edge that any corporation can have: employees who are energetic and competent, who can realize outstanding accomplishment both in times of prosperity and times of adversity, and who are resourceful and innovative. I want to thank them for their conscientious endeavours.

A handwritten signature in black ink, appearing to read 'Reid Morden', followed by a long horizontal line.

Reid Morden
President and Chief Executive Officer

The International Market

China has embarked upon the most aggressive nuclear power program in the world and continued to be the major thrust in AECL's new marketing activity. The highlight of the year was a reciprocal visit to Canada by Premier Li Peng, during which two new agreements were signed confirming an earlier commitment to nuclear cooperation by both countries during Prime Minister Chretien's visit to China in November of 1994. Following the Prime Minister's visit, AECL participated in a study of the feasibility of constructing two 700MW CANDU units at the government owned site at Qinshan in Zhejiang province.

Detailed negotiations since Premier Li's visit are expected to lead to a commercial contract during fiscal year 1996/97. Gaining a foothold in the China market is an important step for the CANDU technology, as well as fulfilling the Canadian government's goal of establishing Canadian technology as an important factor in China's energy infrastructure development.

During the year, AECL's scope of work on the Republic of Korea's Wolsong units 2, 3 and 4 progressed well. Highlights included completion of major nuclear steam supply systems for unit 2, delivery of the calandrias for units 3 and 4, and significant progress on the balance-of-plant for all three units.

The completion of the unit 4 calandria at HANJUNG's facility in Changwon was an important milestone in

Korean localization of CANDU technology. Each Wolsong unit is progressively localized and unit 4 will have 75 per cent Korean content. AECL's engineering and procurement scope for the three units, with the effective participation of sub-contractors - Korea Atomic Energy Research Institute (KAERI), HANJUNG, Korea Power Company (KOPEC) and Canatom/NPM - is about 90 per cent complete. The overall Wolsong project, which is managed by the Korea Electric Power Corporation (KEPCO), had achieved 70 per cent completion by year-end.

KAERI's HANARO research reactor, built with the participation of AECL, went into service early in the year.

Korea's long-term power demand and supply plan, approved by the government in December 1995, includes four new 1000MW nuclear units at the Bonggil site adjacent to Wolsong. The plan calls for a feasibility study of the CANDU 9 by expert organizations, in order to confirm its technical and economic viability before establishing the basic construction plan for the first two units. An eight-month feasibility study by KOPEC, with KAERI as a sub-contractor and the Korea Institute of Nuclear Safety (KINS) as a technical consultant, was contracted by KEPCO in February.

The potential of the rapidly growing Asia-Pacific market for electrical generation capacity was recognized by the opening of AECL's marketing office in Jakarta, covering the Asia-Pacific region except for China and Korea.

Cabinet level contacts in Indonesia, the Philippines and Thailand have indicated substantial government support in those countries for implementing nuclear power programs. Each country is actively assessing the requirements. AECL has established technical cooperation agreements with the key nuclear agencies in Indonesia and the Philippines. Implementation of the agreements commenced in early 1996, leading to exchange of information and personnel and to the operation of joint research projects. A training program jointly sponsored by CIDA, AECL, Babcock & Wilcox, Canatom, GE Canada and NPM, and conducted by the Atomic Energy Control Board, provided orientation to Canada's approach to nuclear regulation for a group of future Indonesian regulatory staff.

AECL's participation in the Thai human resource development linkage program, sponsored jointly with the Canadian International Development Agency (CIDA), became fully active with the AECL Professor of Nuclear Engineering taking up residence at Chulalongkorn University in Bangkok. AECL also submitted a turnkey proposal to Thailand for the construction of the Ongkharak Nuclear Research Centre, which includes a major research reactor.

Initial contacts were established with the Vietnam Atomic Energy Commission, followed by visits by Vietnamese officials to Ontario Hydro's Pickering station.

The latest CANDU reactor to go into operation, Cernavoda unit 1 in Romania, was ready for start-up at fiscal year end. This is the first western designed nuclear station operating in Eastern Europe and the first CANDU in all of Europe. The successful completion of unit 1 will assist AECL, its consortium partner ANSALDO of Italy, and the Romanian utility RENEL in developing the financing to complete the remaining 70 per cent of Cernavoda unit 2.

In Turkey, the consortium of AECL, John Brown (Europe), KEPCO and HANJUNG of Korea, and the Turkish construction companies GAMA, GURIS and Bayindir is preparing to respond to an invitation to bid on a nuclear power project from the Turkish utility TEAS. This invitation is expected in 1996, as Turkey continues to develop the needed energy resources to match its rapid economic development.

AECL, along with Bechtel, is completing its localization studies for the Egyptian Nuclear Power Plant Authority which is preparing for a nuclear power plant program in Egypt.

AECL's focus of activities in Russia is on nuclear safety. A joint Canada-Russia program funded by the Canadian government is in progress to support and enhance the safe operation of RBMK reactors. Also, a joint study with Russia on the assessment of disposal of weapons grade plutonium by burning it in CANDU

reactors is well advanced. Cooperative programs with the Russian nuclear ministry have been extended to include a feasibility study to examine the potential of CANDU in the far east of Russia.

AECL Technologies B.V., incorporated in the Netherlands in April 1995, serves as AECL's window on nuclear activities in Europe. Developing proposals for research reactors and pursuit of services openings and technology initiatives are among the ongoing activities in the region.

In South America, AECL continues to monitor the growing economies of the area and potential opportunities in Peru and Argentina, where a CANDU 6 reactor has been operating successfully since 1983.

Burning Mixed Oxide (MOX) fuel in CANDU has remained an option in the U.S. Department of Energy's deliberations on the disposition of plutonium derived from nuclear weapons.

The Domestic Market

While Canadian electrical utilities undertook cost reduction measures in the face of severe budget constraints, the CANDU nuclear power stations continued to provide a significant proportion of the total Canadian electricity mix.

With continuing over-capacity and tough budgetary pressures, Ontario Hydro not only laid up several fossil-fuelled plants during the year, but also ceased to operate the Bruce A unit 2 reactor in September. It is intended to return the unit to service at the turn of the century. The Darlington reactor had an outstanding year, with a capacity factor of 89 per cent, while the Pickering B and Bruce B stations continue to perform well. The CANDU 6 reactors at Gentilly, in

Québec, and Point Lepreau, in New Brunswick, both underwent major maintenance programs which resulted in lower capacity factors for 1995. However, these planned outages will provide the basis for continued excellent performance over the remaining life of the stations.

On a strategic level, long-term capacity planning was not a major consideration for Canadian utilities. Their primary concerns were to deal with the potential impact that deregulation and power-wheeling of electricity over a North American grid will have on the market and potential industry restructuring and privatization. In the longer term, the environmental benefits of nuclear power are expected to ensure that CANDU will have a continuing role in Canada's energy market.

Services

AECL continued its role in providing a wide range of services to Ontario Hydro, the largest CANDU utility. Ontario Hydro invited expressions of interest in the rehabilitation and restart of the moth-balled Bruce unit 2. AECL responded jointly with five private sector companies to pursue this venture that envisages innovative commercial arrangements and business models involving the possibility of off-balance-sheet financing and equity participation by AECL's partners.

AECL had a major role in supporting a broad spectrum of planned maintenance activities at all CANDU 6 operating stations. This included teams of specialists involved in steam generator cleaning, fuel channel replacement, garter spring repositioning and flux detector replacement. AECL's rapid response with remote tooling and highly qualified staff on site resulted in a record four-day fuel channel replacement at the Embalse station in Argentina.

The Point Lepreau station underwent a major mid-life maintenance shutdown during which AECL and other Canadian nuclear suppliers provided services related to the reactor core and steam generators. This six-month revitalization program was completed in November and the reactor is once again in a position to regain its world-leading performance in 1996.

AECL's reputation as a world leader in dry storage of spent nuclear fuel was enhanced with the commissioning of the MACSTOR (Modular Air-Cooled STORage) module at Hydro Quebec's Gentilly site in October. This is expected to reinforce AECL's marketing efforts in Lithuania, the Czech and Slovak Republics and Taiwan where there is active interest in applying and acquiring this technology.

Commercialization of technology derived from CANDU development programs and from feedback from CANDU operating results was expanded. Under contract to DAEWOO of South Korea, AECL developed a three-dimensional Computer Aided Design and Drafting (CADD) model of the highly successful CANDU 6 plant. This model can be used for future project construction and for ongoing maintenance of operating stations.

As a result of AECL's unique experience with the Underground Research Laboratory (URL) in Manitoba in demonstrating the technology for long-term disposal of spent nuclear fuel, several international contracts were undertaken with Japan, Hungary and the United Kingdom in connection with their underground storage programs.

CANDU Reactors

Product development was centred on four areas:

- keeping the CANDU 6 product ready for near term sales prospects in China and Turkey;
- defining CANDU 6 enhancements for the medium and long term;
- advancing the design and licensing work for the CANDU 9 product in preparation for a potential Korean sales opportunity;
- defining requirements for the research and development programs to support the next generation of CANDU power reactors and MAPLE research reactors, to ensure that a strong competitive position is maintained.

For the near-term CANDU 6 sales considerable advances were made in the area of project delivery. A three-dimensional CADDs model will shorten the construction schedule, improve the management of materials, and introduce a number of other refinements that will significantly reduce the problems normally encountered during construction. New construction methods were investigated that showed substantial potential for major schedule reduction.

For CANDU 9, a single-unit version of the multi-unit Darlington plant, a formal licensing review process

launched early in 1995 continued throughout the year. Feedback from this review gives confidence that the product meets all current licensing requirements. The design staff of 150 achieved more than 100 milestone targets and produced about 200 design documents. In addition, a full-scale control centre mock-up was built and is being used to validate the plant control system and the improvements to the operator interface.

In the area of product improvement through the use of information technology, development work has begun on a plant display system that will provide an integrated view of all plant data to both the operations staff and the engineering and maintenance support staff. This integration of real-time parameter data with engineering information will ensure that future CANDU plants achieve better performance and reduced operating costs.

In the continuing endeavour to improve efficiency and quality, much effort was devoted to enhancing engineering tools and work methods. Formal procedures have been successfully implemented to capture completely the experience from operating stations, current construction projects, equipment manufacturers and suppliers, regulators and other industry participants.

Research Reactors

For the research reactor product line considerable progress is being made on the conceptual design of the new Irradiation Research Facility (IRF) that has been proposed as a replacement for the aging NRU (National Research Universal) reactor to test CANDU fuels and materials. Meanwhile, the 39-year-old NRU added another record to its impressive list of achievements when it passed the 1,500th day of operation without a shutdown of more than 130 hours. This performance by the

world's major radioisotope producer and workhorse for CANDU fuel and materials R&D is unparalleled worldwide.

In response to an invitation to bid, a proposal for a 10MW MAPLE research reactor was submitted to the Office for Atomic Energy and Peace in Thailand. South Korea's HANARO research reactor, which had its first year of operation, is the first operating reactor of the MAPLE family.

CANDU for the Next Century

Recognizing today's intensely competitive market and the long time required for basic development, AECL is envisioning products that will compete, not only with other nuclear plants but with fossil-fuelled plants, in the years beyond 2020. Building on the solid base of existing CANDU technology, cost reduction and fuelling flexibility are the key drivers of advanced technology.

Revolutionary changes such as high-temperature coolants and dramatic design simplification are being studied. An integral part of this work is economic evaluation against rigid cost targets. Also being studied are advanced safety features, using automatic and passive safety systems that will enhance safety while reducing costs.

Fuel and Fuel Cycles

strating that the fuel cycle flexibility provided by the unique features of the CANDU design can be used to advantage with slightly enriched uranium (SEU) fuel cycles. This will reduce the fuelling cost, improve the utilization of uranium, and reduce the amount of spent fuel produced relative to the use of natural uranium.

Work is also in progress to exploit the natural synergy between LWR and CANDU fuel cycles by using spent LWR fuel as a source of SEU. The slightly enriched

uranium can be recovered by conventional reprocessing or by the direct use of PWR fuel in CANDU (DUPIC). The DUPIC dry processing technique remanufactures LWR spent fuel into CANDU fuel pellets.

Fuel Channels

A new deformation equation for pressure tubes has been released. This new equation incorporates all the new data and understanding of pressure tube deformation generated since 1987. The equation was developed over a four-year period to meet customer needs for predicting the lifespan and developing maintenance strategies for existing and new fuel channels.

Safety Technology

Upgrading and enhancement of reactor safety is the purpose of the Safety Technology program. A highlight of the program was the establishment of an activity to improve the validation process for safety and licensing analysis codes. These codes are large computer programs that are used to simulate reactor behaviour during postulated accidents. Among the disciplines identified are thermalhydraulics, fuel, fuel channel and containment phenomena. Industry-wide teams are currently deriving validation matrices in each of these areas to ensure that the codes cover all the potential phenomena that may occur.

This work was driven by the need for CANDU customers and the MAPLE projects to meet the regulator's new quality standard. A much higher level of confidence in code predictions will be required in future.

The first component of the program, "A Phenomenology-Based Matrix of Tests for Use in Validation of Thermalhydraulics Codes Employed in CANDU Safety Analysis," was delivered to the Atomic Energy Control Board.

Heavy Water

Heavy water is a key ingredient of the CANDU reactor. It is currently produced using a process of exchange between ordinary water and hydrogen sulphide. Work continues on the development of an alternative process.

In order to deploy the CIRCE (Combined Industrial Reforming and Catalytic Exchange) heavy water production process, an engineering study has been completed for a test-rig to prove catalyst performance and for a CIRCE pilot plant located at an industrial site. "Industrial reforming" refers to the steam reforming of hydrocarbons to produce large quantities of hydrogen.

The estimated costs and schedule of this next phase in the development of CIRCE are compatible with the overall plan for demonstrating this new heavy water production process. In the laboratory two key technical components of CIRCE

have been demonstrated: a process for large-scale catalyst production, and guard beds capable of suppressing the concentration of carbon monoxide, a catalyst poison, to below 100 parts per billion.

Components and Systems

A dilute chemical cleaning process that can be used on a preventive basis in CANDU steam generators has been developed. It overcomes the disadvantages of existing multi-step processes using concentrated reagents and producing large volumes of concentrated wastes. In the new process a dilute reagent will be constantly recirculated and regenerated during the cleaning process. The low concentration of citric acid used in the dilute process results in a much smaller volume of waste. Other advantages of this process are the shorter application time and the use of modular and portable equipment. As confidence in the ability to clean steam generators grows, AECL designers will be able to specify smaller steam generators with less fouling margin. This will mean reduced heavy water inventory, thus reducing the capital cost of CANDU reactors.

Nuclear Fuel Waste Management Program

The nuclear fuel waste disposal

concept developed by AECL in partnership with Ontario Hydro is being reviewed by a panel under the Federal Environmental Assessment and Review Process.

In October 1994 AECL submitted to the review panel an Environmental Impact Statement (EIS), a separate summary of the EIS, and nine primary reference documents that provide comprehensive details on the major aspects of the disposal concept. In August 1995 interested parties including government departments, aboriginal groups, representatives of learned societies, environmental groups, other organizations and individuals provided comments in 65 submissions on the completeness of the information provided by AECL.

Following its review of the submissions and of the documentation submitted by AECL, the panel decided to proceed with public hearings beginning in March 1996. The hearings will be in three phases. The first deals with broad public issues related to long-term management of nuclear fuel waste and the second deals with technical aspects of long-term safety. The third phase, beginning in the fall of 1996, will take place in New Brunswick, Québec, Ontario, Manitoba and Saskatchewan. It is anticipated that the panel will make recommendations on future actions in 1997.

Ontario Hydro has reviewed its strategy for the long-term management of its nuclear fuel waste. It plans to proceed with disposal based on the concept if, following the panel's review, a decision is made to base Canada's long-term strategy for nuclear fuel waste management on implementation of the concept. Ontario Hydro has indicated that it intends to use the expertise developed by AECL in its program.

Low-Level Radioactive Waste Management

The Low-Level

Radioactive Waste Management Office (LLRWMO), operated by AECL through a cost-recovery arrangement with Natural Resources Canada, successfully completed the cleanup of radium contaminated soil in the Malvern subdivision of the Metropolitan Toronto municipality of Scarborough. The contamination, discovered in 1980, was the result of radium extraction and processing activities in the area during the 1940s. About 17,000 square metres of soil were removed from 68 residential and three commercial/residential properties. The properties were then restored with clean fill, grass and trees. A key constituent of the remedial project was the ability to segregate the soil into licensable, mildly contaminated, and clean fractions. This technology was developed by the LLRWMO and optimized specifically for this project. The project was a joint Canada/Ontario initiative managed by the LLRWMO.

Health & Environmental Sciences

Research programs in health and environmental sciences provide the knowledge and technologies to enhance radiation protection in new and operating CANDU reactors, and in handling waste materials. The multi-disciplined programs are wide-ranging and include the following: studies and measurement of the behaviour of radioactive materials in the atmosphere, water bodies and soil, and in plants, animals and people; estimations of the radiation doses accrued; and investigations of the biological effects of exposure to radiation and radioactive materials.

Work continues on improving technology for monitoring the exposures of workers to airborne radionuclides and to gamma radiation. These include technologically-improved instruments and methods that measure biological changes in cells. Studies on the biological effects of radiation are adding to the understanding of the complex protective mechanisms possessed by biological systems. From the burgeoning data-bases on genetic diseases AECL researchers are extracting information about genes that affect cancer risk and sensitivity to radiation. The molecular biology technologies that they are developing are aimed at providing the tools to examine the distribution of such risk genes in the population.

Comparisons, with peer groups from around the world, of predictive models of how radionuclides behave in

the environment have continued to improve the confidence with which assessments can be made for waste disposal facilities and for emissions from reactors. New techniques have allowed such models to be validated by measuring very low levels of radionuclides in the environment. Examples are mass spectrometry to measure tritium, and accelerator mass spectrometry, using Chalk River's Tandem Accelerator Superconducting Cyclotron facility, to measure chlorine-36 and iodine-129.

AECL continued to maintain a comprehensive radiation protection program to keep doses as low as reasonably achievable below regulatory limits. A revamped program that is being implemented meets present-day standards and satisfies anticipated future regulatory requirements. The revised program, which has been approved by the Atomic Energy Control Board, features increased training of all employees in radiation safety.

Work continues on the development of solutions for disposal of non-fuel radioactive wastes, and on completion of the licensing case for the first Canadian facility, the Intrusion Resistant Underground Structure (IRUS), for the disposal of low-level radioactive wastes from Canada's nuclear laboratories, hospitals, research institutions and industries.

Physical Sciences

Computer control systems for the neutron scattering spectrometers at the NRU reactor were upgraded to allow experimental data to be collected and analyzed off-site via the electronic network. University researchers have successfully used this unique feature.

A new technique has been developed allowing the DUALSPEC spectrometer to use neutrons to probe the structure of surfaces. The technique was used to investigate, for the first time, the ingress of hydrogen into a thin layer of titanium *in situ*. The experiment is

relevant to the use of titanium for containers to store radioactive waste. The technique was also used, in collaboration with McGill and McMaster universities, to investigate the structure of synthetic multi-layer films which are of interest for electronic data storage devices.

CANDU-related research included the use of neutron scattering to track the precipitation and dissolution of hydrides in reactor pressure tube material under operating conditions, and the application of particle accelerator beams to simulate the effects of gamma and neutron radiation on reactor core components.

Environmental Management

AECL continued to strengthen its Environmental Management System. Improvements included addressing new requirements arising from the recent Canadian Environmental Assessment Act, enhancing the quality assurance applied to environmental protection, and integrating environmental protection practices for all AECL sites in Canada. AECL supports and participates in a Canadian industry pilot

implementation of draft international standards for environmental management (ISO 14000).

At the laboratory sites solid waste volumes were reduced and the treatment of liquid wastes prior to discharge was improved, contributing toward continued progress in waste operation management.

Site Refurbishment

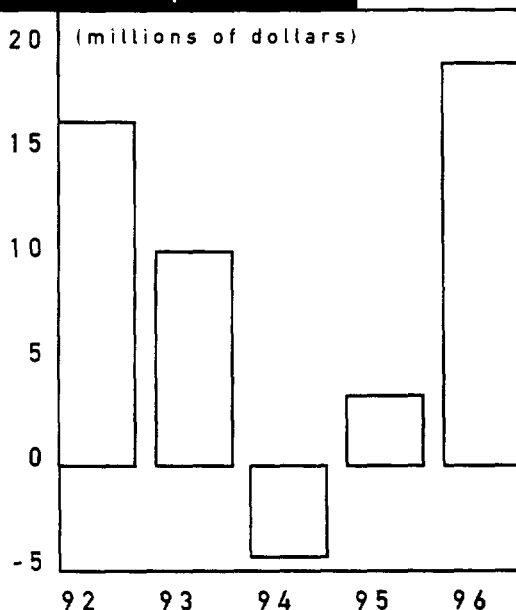
The infrastructure refurbishment program launched in 1994 continues, with priority being given to buildings needing upgrading. At the Chalk River site 9,000 square metres of uneconomical building space have been

taken out of service and removed from the site. Activities in the near term will focus on renovation and energy efficiency improvements of serviceable buildings.

Financial Review and Analysis

In fiscal 1996, the corporation achieved significantly higher operating earnings, largely reflecting the full-year benefit of a more focused and lower cost operation under an integrated management structure. Improved margins on contracts also made an important contribution to results. Earnings from operations, before special items, in fiscal 1996 rose to \$19.1 million, significantly higher than the \$3.3 million in fiscal 1995. This improvement in earnings was achieved in spite of an overall reduction in commercial revenue as AECL's scope of work approached completion on major overseas projects.

Income from Operations



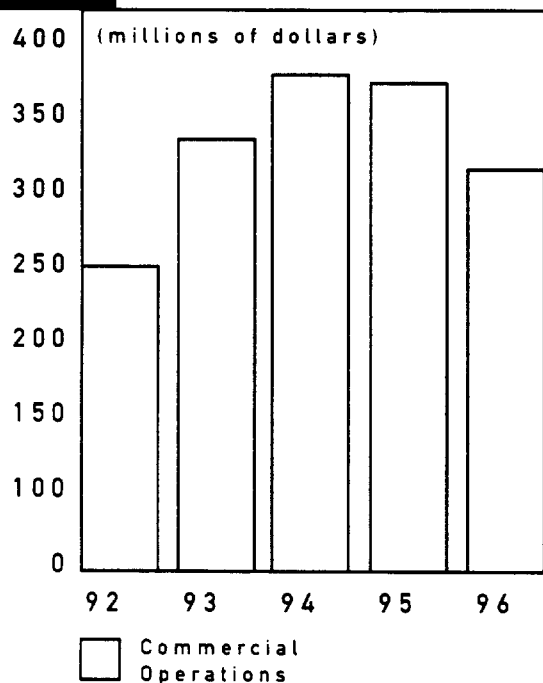
In March 1996, the federal government announced the results of the Program Review of AECL. As part of these results, the government confirmed its commitment to

maintain the CANDU business for Canada, but at a reduced funding level - funding to AECL will be reduced from \$174 million in 1996/97 to \$100 million by April 1998. This necessitates phasing out programs that are not essential to the CANDU business, and further reduction of support and infrastructure expenditures. As a result, a special charge of \$29 million was taken against the fiscal 1996 operating earnings to provide for implementation costs associated with program realignment and related actions. This charge does not recognize the costs associated with any changes in the use of the corporation's major research facilities pending, in particular, an independent task force's review of future use of the Whiteshell Laboratory facilities in Pinawa, Manitoba. After special items, the corporation reported a loss of \$9.9 million for fiscal 1996, compared with a net income of \$7.2 million in fiscal 1995. The 1995 figure included a favorable adjustment of \$3.9 million relating to lower than anticipated restructuring costs applicable to that year.

Commercial Operations

Revenue from commercial activities was \$312 million in fiscal 1996, compared with \$366 million in fiscal 1995. After experiencing steady growth in the past few years, revenue from overseas projects declined, largely reflecting the completion phase of the Cernavoda Unit 1 project in Romania and the progress of the Wolsong project in Korea after reaching the peak level of activity. This was partly offset by increased revenue from services and supply to CANDU owners.

Revenue



Operating profits from Commercial Operations grew to \$10.7 million, from \$2.9 million in fiscal 1995. Improved returns on contracts, including heavy water supply, were more than enough to offset the effect of lower revenues. Marketing and administration costs in fiscal 1996 were \$29 million, up from \$26 million in fiscal 1995, reflecting additional efforts to address market opportunities, including the negotiation for two CANDU units in China. Product development costs increased in fiscal 1996 to \$27 million from \$17 million in fiscal 1995, as a result of significant investment to advance and evolve CANDU products and some reduction in third-party funding.

Research

Research activities have concentrated on the following areas: developing CANDU technology for the benefit of Canada; developing technology for the safe disposal of used CANDU fuel; and maintaining a nuclear science program that contributes to Canada's science and technology objectives. Historically, these activities have been financed by federal appropriations and cost-sharing with Canadian utilities. As a result of the Program Review, the focus will be changed in future years to support the CANDU business.

In the past year, further progress was made to reduce the net cost of the corporation's research activities through restructuring and streamlining measures. As a result, total net research expense absorbed internally was reduced to \$4.0 million in fiscal 1996 from \$8.9 million in fiscal 1995.

Total gross research expenses were \$254 million in fiscal 1996 compared with \$272 million in fiscal 1995. The decrease reflected lower infrastructure and support costs as a result of cost reduction efforts. Total research expenses included a re-statement of \$13 million in 1996 and \$16 million in 1995, representing the amortization costs of capital assets for research purposes.

As explained in Note 3 to the financial statements, this arose from an accounting change adopted in the year to capitalize the net book value of those assets that were previously netted against external funding. These amortization costs were offset by the release of a deferred credit, shown as a separate line in the consolidated statement of operations, relating to the same transaction.

Decommissioning Activities

During the year, Phase 1 decommissioning of the NRX reactor continued, with work proceeding on target. The characterization of stored liquid wastes at Chalk River was completed and a treatment strategy was developed. In addition, an evaluation of the Waste Management Areas at the Chalk River site has begun with the objective of providing a firm basis for decommissioning planning for these areas. New programs in waste segregation and diversion activities have resulted in significant amounts of recycling and reuse of materials from decommissioning activities. The total decommissioning costs for fiscal 1996, funded by parliamentary appropriations, amounted to \$10.3 million, compared with \$11.6 million in the previous year.

As a result of the Program Review, the existing annual federal funding for decommissioning activities through parliamentary appropriations will be eliminated. At the end of the year, the corporation concluded, subject to formal approval by the government, an alternative 10-year funding arrangement for decommissioning activities with the federal government. Under this arrangement, AECL will retain

the proceeds from sales of government-funded heavy water inventory for the purpose of funding future decommissioning activities. Previously, these proceeds were required to be returned to the government. This arrangement would become effective in 1996/97.

As explained in Note 10 to the financial statements, estimation of future decommissioning and site remediation costs are subject to a high degree of uncertainty and as a result much of these costs, which would be incurred in the next century, could not be estimated within the scope and level of reliability which we believe would be desirable for accounting recognition. Furthermore, decommissioning activities have traditionally been funded through parliamentary appropriations and in future will be funded through a special arrangement as noted above. In accordance with the corporation's accounting policy, and in the interests of what management believes is a fairer overall presentation, these future costs will be recorded as expenses when activities take place.

Changes in Financial Position

Net cash
generated
from operat-

ing activities totalled \$1.8 million in the year. This consisted largely of \$19.8 million of funds generated from earnings, after adjustment for non-cash items, offset by \$18.0 million for increased working capital. The change in working capital was due principally to restructuring activities and an increase in the Cernavoda project receivable at year-end. Operations in fiscal 1995 provided a net positive cash flow of \$23.1 million. New investment in capital assets, net of proceeds on disposal, was \$9.1 million in fiscal 1996, compared with \$8.1 million in fiscal 1995. Net cash generated from financing activities was \$12.3 million in fiscal 1996, compared with \$11.1 million from fiscal 1995. The principle activities reported as financing activities included payments from long-term receivables and parliamentary appropriations applied to capital asset expenditures. These activities

provided cash of \$16.0 million in the year, partially offset by the repayment of \$3.7 million of long-term debt.

Overall, the corporation's year-end cash position, which includes advances from customers, was increased to \$146 million from the previous year's level of \$141 million. With this level of cash, AECL has adequate working capital for its expected operating needs over the year now in progress. In the longer term, cash requirements will need to be assessed when the corporation has completed the restructuring activities resulting from the Program Review. Moreover, the corporation's ability to fund future investment will be limited in light of the significant federal funding reduction.

Consolidated Statement of Operations

for the year ended March 31, 1996
(thousands of dollars)

	1996	1995
Commercial operations		Restated
Revenue	\$ 312,318	\$ 365,541
Expenses		
Cost of sales	246,351	320,117
Marketing and administration	28,713	25,785
Product development	26,604	16,664
	301,668	362,566
Operating profit from commercial operations	10,650	2,975
Research		
Expenses	254,438	271,618
Less: Parliamentary appropriations (Note 4)	156,752	159,339
Cost recovery from third parties	80,908	86,970
Amortization of deferred capital funding (Note 3)	12,739	16,340
Net research (expense)	(4,039)	(8,969)
Decommissioning activities (Note 10)		
Expenses	10,283	11,560
Less: Parliamentary appropriations (Note 4)	10,283	10,502
Asset sales	-	1,058
Net decommissioning (expense)	-	-
Interest income	12,467	9,272
Income from operations	19,078	3,278
Restructuring costs (Note 13)	(29,000)	3,900
Net income (loss)	\$ (9,922)	\$ 7,178

Consolidated Balance Sheet

as at March 31, 1996
(thousands of dollars)

	1996	1995
Assets		Restated
Current		
Cash, advances & short-term investments	\$ 145,969	\$ 140,981
Accounts receivable (Note 5)	142,439	122,152
Current portion of long-term receivables (Note 6)	102	5,531
Inventory of supplies	11,192	10,009
	<u>299,702</u>	<u>278,673</u>
Heavy water inventory (Note 7)	583,393	584,406
Long-term receivables (Note 6)	892	3,882
Capital assets (Note 8)	109,147	113,218
	<u>\$ 993,134</u>	<u>\$ 980,179</u>
Liabilities		
Current		
Accounts payable and accrued liabilities	\$ 207,083	\$ 193,940
Current portion of long-term debt (Note 9)	3,981	3,931
	<u>211,064</u>	<u>197,871</u>
Restructuring and other provisions	96,497	85,873
Deferred revenue	51,196	49,138
Deferred capital funding (Note 3)	102,129	105,492
Accrued employee termination benefits	52,773	48,682
Long-term debt (Note 9)	15,319	19,045
	<u>528,978</u>	<u>506,101</u>
Shareholder's equity		
Capital stock		
Authorized -75,000 common shares		
Issued -54,000 common shares	15,000	15,000
Contributed capital	607,410	607,410
Deficit	(158,254)	(148,332)
	<u>464,156</u>	<u>474,078</u>
	<u>\$ 993,134</u>	<u>\$ 980,179</u>

Approved by the board:

Mary C Arnold
Mary Arnold, Director

Reid Morden
Reid Morden, Director

Consolidated Statement of Deficit

for the year ended March 31, 1996
(thousands of dollars)

	1996	1995
		Restated
Balance at beginning of the year	\$ (148,332)	\$ (155,510)
Net income (loss)	(9,922)	7,178
Balance at end of the year	<u>\$ (158,254)</u>	<u>\$ (148,332)</u>

Consolidated Statement of Changes in Financial Position

for the year ended March 31, 1996
(thousands of dollars)

	1996	1995
Operating Activities		Restated
Net income (loss)	\$ (9,922)	\$ 7,178
Adjustment for non-cash items		
Amortization of capital assets	14,957	18,236
Amortization of deferred capital funding	(12,739)	(16,340)
Restructuring costs	27,522	(3,900)
	<u>19,818</u>	<u>5,174</u>
Change in non-cash working capital amounts		
Accounts receivable	(20,287)	(10,691)
Inventory of supplies	(1,183)	606
Accounts payable and accrued liabilities	13,143	36,552
Reduction in heavy water inventory	1,013	1,240
Restructuring and other provisions	(16,898)	(19,155)
Accrued employee termination benefits	4,091	1,417
Deferred revenue	2,058	7,967
	<u>(18,063)</u>	<u>17,936</u>
Cash from operating activities	<u>1,755</u>	<u>23,110</u>
Investing Activities		
Acquisition of capital assets, net of proceeds on disposal	(9,069)	(8,107)
Cash used in investing activities	<u>(9,069)</u>	<u>(8,107)</u>
Financing Activities		
Reduction of long-term debt	(3,676)	(3,800)
Reduction of long-term receivables	8,419	4,760
Parliamentary appropriations applied for capital asset expenditures	7,559	10,179
Cash provided by financing activities	<u>12,302</u>	<u>11,139</u>
Cash, advances & short term investments:		
Change	4,988	26,142
Balance at beginning of year	140,981	114,839
Balance at end of year	<u>\$ 145,969</u>	<u>\$ 140,981</u>

Notes to the Consolidated Financial Statements

for the year ended March 31, 1996
(thousands of dollars)

1. The Corporation

Atomic Energy of Canada Limited (AECL) was incorporated in 1952 under the provisions of the Canada Corporations Act (and continued in 1977 under the provisions of the Canada Business Corporations Act) pursuant to the authority and powers of the Minister of Natural Resources under the Atomic Energy Control Act.

The corporation is a Schedule III Part I Crown corporation under the Financial Administration Act and an agent of Her Majesty the Queen in right of Canada. The corporation is exempt from income taxes in Canada.

These financial statements include the accounts of the corporation's wholly-owned subsidiaries, AECL Technologies Inc. (formerly AECL Inc.), incorporated in the state of Delaware, U.S.A. in 1988, and AECL Technologies B.V., incorporated in the Netherlands in 1995.

2. Significant Accounting Policies

Foreign Currency Translation

Transactions denominated in a foreign currency are translated into Canadian dollars at the exchange rate in effect at the date of the transaction, except those covered by forward exchange contracts, where the rate established by the terms of the contract is used. Monetary assets and liabilities outstanding at the balance sheet date are adjusted to reflect the exchange rate in effect at that date, except those covered by forward exchange contracts, where the exchange rate established by the terms of the contract is used. Exchange gains and losses arising from the translation of foreign currencies are included in income.

Inventories

Heavy water is valued at the lower of average cost and net realizable value. Supplies are valued at cost.

Capital Assets

Capital assets are recorded at cost and this cost is amortized on a straight-line basis over the estimated useful life of the asset as follows:

Machinery and equipment	- 3 to 20 years
Buildings and land services	- 20 to 40 years

Decommissioning activities

As further explained in Note 10, costs of decommissioning nuclear facilities and site remediation are expensed as the activities take place.

Long-term Contracts

Revenue and costs on long-term contracts are accounted for by the percentage of completion method, applied on a conservative basis to recognize the absence of certainty on these contracts. Full provision is made for all estimated losses to completion of contracts in progress.

Parliamentary Appropriations

The Government of Canada, through parliamentary appropriations, funds certain operations of the corporation as outlined in Notes 4 and 7. Parliamentary appropriations received in prior years to fund heavy water inventory have been recorded as contributed capital. Parliamentary appropriations used to acquire capital assets have been recorded as deferred capital funding on the consolidated balance sheet and are amortized on the same basis as the related capital assets. Other parliamentary appropriations are recorded separately in the consolidated statement of operations as used.

Cost Recoveries from Third Parties

AECL and the Canadian nuclear utilities (Ontario Hydro, New Brunswick Power and Hydro Québec) have a common interest in the safe, efficient and economical use of electricity utilizing CANDU technology. Research programs aligned with these objectives are undertaken by AECL and cost-shared with the utilities under funding arrangements which continue until the end of fiscal 1997. Funding under these arrangements is included in cost recoveries from third parties on the same basis as the related expenses.

Pension Plan

Employees are covered by the Public Service Superannuation Plan administered by the Government of Canada. The corporation's contributions to the Plan are limited to an amount equal to the employees' contributions on account of current service. These contributions represent the total pension obligations of the corporation and are charged to income on a current basis. The corporation is not required under present legislation to make contributions with respect to actuarial deficiencies of the Public Service Superannuation Account.

Employee Termination Benefits

Employees are entitled to specific termination benefits as provided for under collective agreements and conditions of employment. The liability for these benefits is charged to income as benefits accrue to the employees. The accumulated liability is based on an actuarial determination and reviewed on a periodic basis.

Workers' Compensation

In accordance with the Government Employees' Compensation Act, the corporation reimburses Human Resources Development Canada for current payments for workers' compensation claims and pensions billed by the provincial compensation boards. The benefit payments are recognized as an expense in the year paid to the provincial compensation boards.

3. Change in Accounting Policy

Prior to 1996, capital assets were recorded at cost less parliamentary appropriations and third party contributions. These assets have been recorded in the current year at their corresponding net book value as at March 31, 1996 of \$102.1 million (1995 - \$105.5 million) and an equivalent amount has been recorded as unamortized deferred capital funding. Both the cost and the deferred capital funding will be amortized over their future useful lives (\$12.7 million in 1996; \$16.3 million in 1995). This change in accounting policy has been applied retroactively.

4. Parliamentary Appropriations

Parliamentary appropriations and their use by the corporation are as follows:

	(thousands of dollars)	
	1996	1995
Research		
Operating costs	\$ 156,752	\$ 159,339
Capital asset expenditures	7,559	10,179
Decommissioning activities	10,283	10,502
	<u>\$ 174,594</u>	<u>\$ 180,020</u>

5. Accounts Receivable

Accounts receivable include \$20.7 million receivable from Canada Development Investment Corporation (CDIC). Of this amount, \$10.7 million relates to the corporation's 1988 sale of its shares in Theratronics to CDIC for eventual privatization. Under the sale agreement, the corporation is to receive the proceeds from the sales less CDIC's expenses associated therewith.

6. Long-Term Receivables

	(thousands of dollars)	
	1996	1995
Contract receivables maturing through 1997	\$ -	\$ 8,630
Mortgages and other receivables	994	783
	<u>994</u>	<u>9,413</u>
Current portion	102	5,531
	<u>\$ 892</u>	<u>\$ 3,882</u>

7. Heavy Water Inventory

The corporation's \$583.4 million of heavy water inventory was substantially government-funded through repayable parliamentary appropriations. At the end of the year, the corporation concluded an arrangement which, subject to the government's formal approval, would release the corporation from its obligation to repay parliamentary appropriations, along with associated interest, related to government-funded heavy water. The arrangement would become effective in 1996/97. Under the arrangement, the proceeds from heavy water sales thus retained by the corporation, except AECL's right to the \$97 million of such proceeds as established under a previous arrangement, would be used to fund decommissioning activities over a 10-year period (see Note 10).

8. Capital Assets

(thousands of dollars)				
	1996		1995	
	Cost	Accumulated Amortization	Net	Net
Commercial operations				
Land and improvements	\$ 963	\$ 245	\$ 718	\$ 461
Buildings	8,833	7,571	1,262	734
Machinery and equipment	8,543	6,852	1,691	6,531
	<u>18,339</u>	<u>14,668</u>	<u>3,671</u>	<u>7,726</u>
Research				
Land and improvements	15,121	11,202	3,919	4,174
Buildings	82,951	46,648	36,303	37,186
Reactors and equipment	252,320	202,253	50,067	52,222
Construction in progress	15,187	-	15,187	11,910
	<u>365,579</u>	<u>260,103</u>	<u>105,476</u>	<u>105,492</u>
	<u>\$ 383,918</u>	<u>\$ 274,771</u>	<u>\$ 109,147</u>	<u>\$ 113,218</u>

Amortization of capital assets for the year ended March 31, 1996 amounted to \$15 million (1995 - \$18.2 million).

9. Long-Term Debt

(thousands of dollars)			
	1996		1995
Loans from Government of Canada			
To finance leased heavy water and other assets, maturing through 2008 at interest rates varying from 5.625% to 8.5%	\$ 13,491	\$	14,388
Loans from third parties			
To finance the purchase of the Glace Bay heavy water plant, maturing through 1998 at an imputed interest rate of 8.875%	5,809		8,588
	<u>19,300</u>		<u>22,976</u>
Current Portion	3,981		3,931
	<u>\$ 15,319</u>	\$	<u>19,045</u>

Repayments of loan principal amounts required over succeeding years are as follows (millions of dollars): 1997 - \$4.0; 1998 - \$4.4; 1999 - \$1.2; 2000 - \$1.2; 2001 - \$1.0 and subsequent to 2001 - \$7.5.

10. Decommissioning Activities

When prototype reactors, heavy water plants, nuclear research, development and other facilities have no further commercial or research value to the corporation, they are retired and subsequently decommissioned in accordance with Atomic Energy Control Board regulations. Due to the variety of facilities, the decommissioning process may differ in each case. In some cases, decommissioning activities are carried out in stages with intervals of several decades between them to allow radioactivity to decay before moving on to the next stage. Activities include dismantling, decontamination and residual waste storage and disposal.

Estimation of future decommissioning and site remediation costs depends on the development of detailed plans, acceptable to regulatory agencies, and requires determination of the desired end-state, technology to be employed and, in some cases, research and development. The corporation has prepared a broad plan of activities to be carried out over the next four to five decades. While the cost of much of this future work could not be reasonably

estimated, it has been possible to determine an amount of approximately \$300 million as the likely cost of the portion of the program for which preliminary estimates can be made. Over the next 10 years, the corporation plans to incur a significant portion of this amount. At the end of the year, the corporation concluded, subject to formal approval by the government, a 10-year funding arrangement for decommissioning activities with the federal government. Under the arrangement, these activities will be funded by proceeds from the sale of government-funded heavy water inventory rather than by parliamentary appropriations.

The corporation has not recorded the liability for these future activities because much of the future work could not be reasonably estimated and because, historically, decommissioning activities have been financed through parliamentary appropriations and will continue to be financed by the federal government through a special arrangement as noted above. The corporation expects to continue its present policy of expensing costs as decommissioning activities take place.

11. Related Party Transactions

In addition to the transactions disclosed elsewhere in these financial statements, the corporation had the following transactions with the Government of Canada:

	(thousands of dollars)	
	1996	1995
Repayment of loans and interest	\$ 2,285	\$ 2,223
Payments to the Public Service Superannuation Plan	\$ 12,546	\$ 12,847

In the normal course of business, the corporation also enters into various transactions with the Government of Canada, its agencies and other Crown corporations.

12. Contingency

Formal arbitration proceedings engaged by the corporation and Nordion International Inc. (Nordion), and a legal claim made by MDS Health Group Limited and its subsidiary, Nordion, which names the corporation together with Canada Development Investment Corporation (CDIC) and the Attorney General of Canada, have been suspended since 1994 May pending the outcome of facilitated discussions covering various contractual matters. On both the arbitration and litigation matters, management continues to be of the view that the corporation is well positioned to defend itself should the discussions not reach a mutually acceptable solution and, as a result, no amount has been provided for in the financial statements for damages from legal proceedings. Discussions between Nordion and the federal government and between Nordion and AECL have been ongoing for the past year.

13. Restructuring Costs

The corporation recognized a \$29 million charge for restructuring in the current year. On March 6, 1996, the federal government tabled a budget which, while reaffirming its support for AECL's leadership in the Canadian nuclear industry and for the CANDU business, will result in a reduction to the corporation's annual parliamentary appropriations from \$174 million to \$100 million by April 1998. The corporation will eliminate or reduce expenditures on research programs which do not directly contribute to the CANDU business, and manage its infrastructure and support costs at a level in line with the program reductions.

Implementation of the program reductions and related actions will cover a period beginning April 1996 with planned completion by March 1999. The corporation has also identified an additional \$12 million of related costs for restructuring that will be recognized in the year they are incurred, in accordance with generally accepted accounting principles.

Restructuring costs do not recognize the closure of any major research facility. As part of the federal government's Program Review, an independent task force has been established to recommend future use and viability of the Whiteshell Laboratory facilities in Pinawa, Manitoba. The task force is not expected to table its recommendation(s) to the Government until the summer of 1996. The corporation will take appropriate action(s) pending this report and in consultation with its shareholder.

14. Sales Agents' Remuneration

In 1996, remuneration and expenses paid to the following sales agents and representatives aggregated \$2 million (1995 - \$7.3 million): B.C. Simeon Park, U.S.A.; Marubeni Corporation, Japan; Sumta Sanayi Urunleri Musavirlik Ve Ticaret A.S., Turkey; Samchang Corporation, Korea; PII-PED International Inc., U.S.A. and Korea; and Oxford Health Care Ltd., U.K..

15. Comparative Figures

Certain reclassifications have been made to the 1995 comparative figures to conform with the current year's presentation.

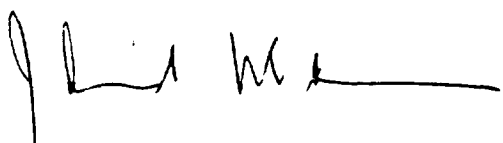
Management Responsibility

The consolidated financial statements, all other information presented in this Annual Report and the financial reporting process are the responsibility of the management and the board of directors of the corporation. Except for the non-recognition of future decommissioning costs, which is explained in the notes to the consolidated financial statements, these statements have been prepared in accordance with generally accepted accounting principles and include estimates based on the experience and judgment of management. In the case of decommissioning costs, the corporation has chosen, in the interest of what it considers to be a fairer overall presentation, to continue its established policy of expensing such costs as decommissioning activities take place.

The corporation and its subsidiaries maintain books of account, financial and management control, and information systems, together with management practices designed to provide reasonable assurance that reliable and accurate financial information is available on a timely basis, that assets are safeguarded and controlled, that resources are managed economically and efficiently in the attainment of corporate objectives, and that operations are carried out effectively. These systems and practices are also designed to provide reasonable assurance that transactions are in accordance with Part X of the Financial Administration Act and its regulations, as well as the Canada Business Corporations Act, the articles, and the bylaws and policies of the corporation and its subsidiaries. The corporation has met all reporting requirements established by the Financial Administration Act, including submission of a corporate plan, an operating budget, a capital budget and this Annual Report.

The corporation's internal auditor has the responsibility for assessing the management systems and practices of the corporation and its subsidiaries. The Auditor General of Canada conducts an independent audit of the consolidated financial statements of the corporation and reports on his audit to the Minister of Natural Resources.

The board of directors' audit committee, composed of directors who are not employees of the corporation or its subsidiaries, reviews and advises the board on the consolidated financial statements, the Auditor General's reports thereto and the plans and reports related to special examinations, and oversees the activities of internal audit. The audit committee meets with management, the internal auditor and the Auditor General on a regular basis.



Reid Morden
President and Chief Executive Officer



David J. Thomas
Chief Financial Officer

May 30, 1996

Auditor's Report

To the Minister of Natural Resources

I have audited the consolidated balance sheet of Atomic Energy of Canada Limited as at March 31, 1996 and the consolidated statements of operations, deficit and changes in financial position for the year then ended. These financial statements are the responsibility of the corporation's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

There are significant costs associated with decommissioning the corporation's facilities and remediating its sites, including costs of residual waste storage and disposal. Generally accepted accounting principles require that these costs be recognized in a rational and systematic manner over the estimated useful lives of the corresponding facilities. However, as described in Note 10 to the financial statements, the corporation has not estimated and recorded the total liability for these costs. Accordingly, I was not able to determine the full magnitude of the adjustment that is necessary to the expenses, the liabilities and the deficit of the corporation.

In my opinion, except for the failure to record the liability for decommissioning and site remediation as described in the preceding paragraph, these consolidated financial statements present fairly, in all material respects, the financial position of the corporation as at March 31, 1996 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles. As required by the Financial Administration Act, I report that, in my opinion, these principles have been applied, after giving retroactive effect to the change in accounting policy described in Note 3 to the financial statements, on a basis consistent with that of the preceding year.

Further, in my opinion, the transactions of the corporation and of its wholly-owned subsidiaries that have come to my notice during my audit of the consolidated financial statements have, in all significant respects, been in accordance with Part X of the Financial Administration Act and regulations, the Canada Business Corporations Act and the articles and by-laws of the corporation and its wholly-owned subsidiaries.

I wish to draw your attention to the fact that, for each of the past five years, my report on the annual financial statements and transactions of the corporation has referred to the corporation's failure to record its liability for decommissioning and site remediation costs. These are significant costs of the corporation, but they have been excluded from its financial statements. The corporation refers to two reasons for not recording the liability – its view that much of the future work could not be reasonably estimated and because, historically, decommissioning activities have been financed through parliamentary appropriations. However, I do not accept these reasons because other organizations have estimated, recorded and reported these types of costs and because proper accountability reporting requires the corporation to estimate and record this liability on its financial statements, regardless of how it is to be financed. Although not a prerequisite to the proper accounting for this liability, from the Corporation's perspective, an associated issue is the respective responsibilities of the corporation and the government for funding these costs. I encourage the corporation and the government to, together, clarify this responsibility in the coming year, perhaps as part of the finalization of the funding arrangements described in Notes 7 and 10 to the financial statements.



Wm. F. Radburn, FCA
Assistant Auditor General
for the Auditor General of Canada

Ottawa, Canada

May 30, 1996

Five-Year Consolidated Financial Summary

(millions of dollars)

	1996	1995	1994	1993	1992
Operations					
Revenue	312	366	368	331	249
Income (loss) from operations	19	3	(4)	10	16
Net income (loss)	(10)	7	(139)	10	2
Research expenses	254	272	325	329	297
Cost recovery from third parties	81	87	88	93	86
Financial Position					
Cash, advances & short-term investments	146	141	115	102	54
Heavy water inventory	584	584	586	596	602
Long-term receivables	1	4	9	13	441
Capital expenditures	9	8	17	26	27
Capital assets	109	113	121	116	102
Total assets	993	980	952	1,399	1,355
Long-term debt	15	19	23	27	459
Shareholder's equity	464	474	467	606	600
Other					
Parliamentary appropriations	175	180	174	180	176
Export revenues	235	291	285	239	151
Number of full-time employees	3,881	3,943	4,287	4,431	4,503

The Board of Directors

- ▲ ▼ ♦ **Robert F. Nixon**
Chairman of the Board
- ▲ ▼ ♦ **Reid Morden**
President and Chief Executive Officer
- **Mary Arnold**
Director
- ▲ ♦ **Lino J. Celeste**
Chairman Bruncor/NBTel
- **George L. Cooke**
President and CEO
The Dominion of Canada
General Insurance Company
- ▲ ▼ ♦ **Jean Demers**
President
Jean Demers and Associates
- **Ralph E. Lean**
Partner
Cassels, Brock and Blackwell
- ▼ **Pierre Linteau**
Partner
Grenier, Linteau, Petit
- James C. McKee**
Professor Emeritus
University of Manitoba
- ▲ ♦ **Marnie Paikin**
Director
- ▼ ● ■ ♦ **W. Steve Vaughan**
Partner
Aird & Berlis
- Hugh Wynne-Edwards**
President and CEO
B.C. Research Inc.

Officers

- Reid Morden**
President and Chief Executive Officer
- JoAnne Cohen Sulzenko**
Vice-President
Corporate Relations
- William T. Hancox**
Vice-President
Strategic Development
- Allan A. Hawryluk**
General Counsel
- R. Allen Kilpatrick**
Vice-President
Marketing and Sales
- Gary Kugler**
Vice-President
Commercial Operations
- Donna G. Pasteris**
Vice-President
Human Resources
- David J. Thomas**
Vice-President
Finance and Administration and
Chief Financial Officer
- David F. Torgerson**
Vice-President
Research and Product Development
- Raymond E. Grisold**
Controller
- Louise Carisse**
Corporate Secretary

- Executive Committee
- Audit Committee
- ▲ Compensation Committee
- ▼ Environment Committee
- ♦ Science and Technology Committee

Locations

AECL

344 Slater Street
Ottawa, Ontario
K1A 0S4

AECL

2251 Speakman Drive
Mississauga, Ontario
L5K 1B2

AECL

1155 Metcalfe Street
Montréal, Québec
H3B 2V6

AECL

Western Region
446A 2nd Avenue North
Saskatoon, Saskatchewan
S7K 2C3

AECL

Atlantic Region
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