

Media Support	Vol.	File Dossier	Title Titre	Scope and Content Portée et contenu	Dates
<b>George C. Laurence fonds</b>					
<b>History of Nuclear Physics Research</b>					
Textual	1	1	Notes on the History of Nuclear Energy Research and Development in Canada		1961
Textual Architecture	1	2	Early years of Nuclear Energy Research in Canada	Drafts of "Early years of Nuclear Energy Research in Canada" by George Laurence and final text published in the edition of Science Forum of December 1976. Contains also 2 photographs showing some of the initial research staff of Montreal Laboratory in 1943 and one cutaway drawing of Ottawa sub-critical assembly as it was in 1941-1942.	1943-1976
Textual	1	3	Canada's Participation in Atomic Energy Development		[194-] - 1966
Textual	1	4	The Montreal Laboratory	Contains the Paper "The Montreal Laboratory" by George Laurence other documents with historical information on the laboratory.	1940-1966
Textual	1	5	A Retrospective View of Nuclear Development in Canada	Manuscript of a paper titled "A Retrospective View of Nuclear Development in Canada" by George Laurence.	[197-]
Textual	1	6	History of Nuclear Energy Research in Canada	History of Nuclear Energy in Canada	[197-]
Textual	1	7	Nuclear Physics in Canada in the 1930's - B.W. Sargent	Article of B.W. Sargent titled "Nuclear Physics in Canada in the 1930's" edited by the Nuclear Physics Laboratory of Queen's University and dedicated to George Laurence.	1979
Textual	1	8	The Structure of Physical Theories	Text of a Conference presented by G.C. Laurence at the 1953 Congress of the Canadian Association of Physicists	1953
Textual	1	9	Sketches of Papers	Sketches of papers on the history of nuclear energy research	[196-]
Textual	1	10	Atomic Energy : It's Discovery, Use and Control	Text of a lecture sponsored by the Sarnia Board of Education	1947
Photo	8	1	Rutherford, the Cavendish Laboratory and the Interior of Chalk River Station	Contains pictures of Ernest Rutherford in South Afrika, with J.J. Thomson and of the Rutherford and the Cavendish Laboratory (England). Contains also pictures of the Interior of Chalk River Station (with aerial view of the reactor, NRX).	1929-1949
<b>Scientific Records on Nuclear Physics</b>					

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Textual Photo	1	11--13	Notebooks - Studies, Dalhousie University	Notebooks of George Laurence during is M.A. studies at Dalhousie University. Contains notes and calculations. One notebook contains also 1 photograph of an experimental device.	1926-1927
Textual	1	14	Early Publications of George Laurence	Two publications of George Laurence while he was student at Dalhousie University, Halifax, Nova Scotia, titled : "The Ratio of the Electrics Units of Charge" and "Range of Uranium I and II"	1927
Textual	1	15	Notebooks - NRC	Notebooks of George Laurence from his work at the National Research Council. Contains notes and calculations.	[194-]
Textual	1	16	Uranium Fission in a Bulk of Carbon and Uranium Oxide	Paper by G.C. Laurence and B. W. Sargent for the National Research Laboratory. Contains also correspondence with B.W. Sargent and J.D. Cockroft on Uranium Fission Research	1941-1942
Textual	1	17	Neutron and Material Balance in a Thermal Fission Reactor with Fuel Reflux	Paper by G.C. Laurence.	n.d.
Textual	1	18	Notes on the Elementary Physics of Nuclear Engineering	Report by G.C. Laurence for the Atomic Energy Project of the Research Division of the National Research Council. Contains also lectures related to a project by W.H. Watson entitled "The Physics of Slow Neutrons"	1947-1951
Textual	1	19	Estimating Material Balance in a Thermal Reactor with Fuel Reflux	Manuscript of a paper by G.C. Laurence.	n.d.
Textual	1	20	Neutrons Captured and Released in Plutonium Reflux	Calculations and graphs by G.C. Laurence. Contains experimental data and typed explanations.	n.d.
Textual	1	21	Calculations on Uranium Fission	Calculations by G.C. Laurence	n.d.
Textual	1	22	Calculations and Graphs	Calculations and graphs by G.C. Laurence	n.d.
Textual	1	23	Neutron capture and emission in Uranium and Plutonium Reflux	Data sheets, notes and graphs by George Laurence	1956
Textual	1	24	Calculations of effect of Plutonium feedback on reactivity	Paper by M.F. Duret. I.L Wilson and H.S. Gellman	1954
Textual	2	1--2	A study concerning Uranium as a source of power by J.B. Fisk and W. Shockley	The MAUD Report, Parts S-I to S-IV. Uranium studies at Bell telephone Labs. Inc.	1941-1942

**Nuclear as Energy Resources**

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Textual	2	3	Georges Laurence's papers on Nuclear Energy	Contains the following papers of George Laurence : "Atomic Energy" (in 3 different version), "Some of the Technical Terms that are used in Discussing Atomic Power", "Atomic Power Development in Canada", "Atomic Power", "Physics Problems of Atomic Power" and "Atomic Power - The Present Outlook". "The Canadian Nuclear Electrical Power Program", "Future Demand for Nuclear Energy in Canada" and " Futur Supply of Energy in Canada".	1945-1960
Textual	2	4	Papers on Nuclear Energy	Contains : "World Review of Nuclear Power" and "Nuclear Power : an Energy source for Canada" by J. Lorne Gray. Contains also the text of a lecture given by of G.M. Volkoff entitled : "Atomic Power" an a short text on "DR. C.J. Mackenzie and Atomic Energy".	1972-1975
Textual	2	5	Canada's Energy Supplies : What are the Prospects	Contains the published version as well as a draft of the paper (published in the edition of Science Forum of February 1974) and related correspondence.	1974
Textual	2	6	George Laurence's Presentation at the Rotary Interact Student Conference on Environment	Contains 2 presentations of George Laurence in 1973 and 1975 for the Rotary Interact Student Conference on Environment : "Some Comments on the Use of Canada's Energy Resources " (1973) and "Energy Resources" (1975) , and related documentation.	1973-1975
Textual	2	7	The Energy Question : Book Review by George Laurence	Review by George Laurence of the Book "The Energy Question: An International Failure Policy" edited by Edward Erickson and Leonard Waverman.	1975
Textual	2	8	Economic Future of Nuclear Power	Handwritten; notes and calculation	[ca. 1980]
Textual	2	9	Drafts of Papers on Particle Accelerators and the Intense Neutron Generator (ING)	Drafts of Papers and correspondence pertaining on particle accelerators and related to the Intense Neutron Generator (ING).	1966-1967
Textual	2	10	Papers on topics related to Energy Resources and Nuclear Energy	Drafts of papers of George Laurence on the demand for nuclear energy, energy supply and price theory : "Time Lag in Energy Supply", "On the Limitations of Price Theory" and other papers untitled.	[197-]

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Textual	2	11--19	Symposium on Energy Resources	Programmes, papers and some correspondence pertaining to a Symposium on Energy Resources held by the Royal Society of Canada at the National Library in Ottawa in October 1973. Contains some papers and presentation of George Laurence (among others : "On Planning for Sale and Use of Energy" (file 11), "Symposium on Energy Resources" (file 14) and "Reflections after the Royal Society of Canada's Symposium on Energy Resources" (file 19). More correspondence related to this event is to be found in the Correspondence serie (Vol.4)	1973
Textual	2	20	Capital Needs for Energy	Draft and manuscript of a letter of George Laurence for the Globe and Mail entitled "Capital Needs for Energy" and related correspondence.	1974
Textual	3	1	Papers on Energy Resources	Papers on the topic of Energy resources by scientists, engineers and chief executives.	1972-1973
Textual	4	17--20	Symposium on Energy Resources - Correspondence	Correspondence pertaining to a Symposium on Energy Resources held by the Royal Society of Canada at the National Library in Ottawa in October 1973.	1972-1973
Photo	7	8	Presentations on Nuclear Power	Contains a presentation on Nuclear Power to Parliamentary Committee (on negatives) and a Presentation on Plutonium Recycle (on plastic slides)	1961-1970
<b>Nuclear Reactors and Stations</b>					
Textual	3	2	Papers on Nuclear Reactors and Power Stations	Contains the following papers of George Laurence : "Atomic Energy Reactors", "Atomic Power Reactors and their Fuels", "Nuclear Electric Power Stations", "Nuclear Power Stations", "Central Station Nuclear Electric Power", "A Comparison of Some Nuclear Power Reactors" and "Reliability Requirements for Nuclear Power Stations".	1951-1962

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Textual	3	3--4	Papers on Canada's Nuclear Reactors and Power Station	Contains the following papers of George Laurence : "Some Remarks on Canadian Reactor Technology", "Nuclear Power Station in Canada", "The Evolution of Canadian Nuclear Power Station Design : a Retrospective Way of Nuclear Development", "Nuclear Power in Canada", "Reactor siting Practice in Canada", "Probability Considerations in Reactors Hazards Appraisal", "The Potential of the Use of Heavy Water in Nuclear Power Plants" and the text of a lecture given to the Hamiton Section of I.R.E.. Contains also "The Canadian Nuclear Electrical Power Program : Present and Future" by E.C.W Perryman.	1954-1972
Textual	3	5	ZEEP - Canada's First Nuclear Reactor	Copy of George Laurence's paper : "ZEEP - Canada's First Nuclear Reactor". Contains also a draft of the paper	1975
Textual	3	6	Reports and publications on the ZEEP	Contains the following publications and reports : "The Low Energy Pile at Chalk River" by B.W. Sargent, "Distribution of Neutron Density and the Derived Laplacian in ZEEP" by M.W. Johns and B.W. Sargent', "The Second Report on the Projected Zero-Energy Experimental Pile", "The Low Power Pile at Chalk River" (chap. 5 of Research in Neutron Physics at Chalk River by B.W. Sargent), and the "Second Report on the Projected Zero-Energy Experimental Pile" by L. Kowarski and C.N. Watson-Munro.	1944-1946
Textual	3	7	Papers on the ZEEP	Contains the following papers : "The Zeep" by Dr. D.A. Keys, "Zeep" by W. Bennett Lewis and "Reflections on the Meaning of Canadian First" by L. Kowarski.	1975
Textual	3	8	Related correspondence to the ZEEP		1960-1975
Textual	3	9	ZEEP - Progress report		1944-1946
Textual Carto	3	10	Atomic Energy Project in Chalk River	Contains the Programm of a visit of the Members of the Press Gallery of the House of Commons to Chalk River in December 1950; an article of G. Laurence entitled : "Irradiation Facilities in NRU"; a preliminary map of Chalk River from 1942 and correspondence, data sheets and reports from the Reactor and Research Development Division.	1942-1960

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Textual	3	11	Nuclear Reactor's Fuel	Contains the draft of a paper of G. Laurence entitled "Fuel Enrichment" and "Economic Competition in Nuclear Power : Low Cost Two Fuel Systems Using Thorium" by Bennett Lewis.	1979
Textual	3	12	Research program of the Montreal Laboratory	Report in 4 parts on the Research Program of the Montreal Laboratory.	1943
Textual	3	13--14	Monthly reports on the development of the NRX project	Monthly reports by A.B. McEwens on the development of the NRX project in Chalk River from April 1945 to April 1948; contains also the draft a paper entitled : "The History of the NRX Reactor"	1945-1948
Textual	3	15--16	Calculation and explanations on the Physics of Nuclear Reactors	Calculation sheets; sketches of presentation on nuclear science and engineering.	[195-]
Textual Architecture	3	17	Uranium slugs	Technical drawing of experimental uranium slugs from the Ministry of Supply. Title : "Experimental Slug". Drawing No 84016	1954
Photo	7	1	The Montreal Laboratory - First Director and initial research staff	Contains one photograph and 7 negatives showing some of the initial Research Staff of the Montreal Laboratory in 1943. Contains also a photograph showing J.D. Cockroft on being decorated by the Government of France (with J. Guéron, B. Goldschmidt, L. Kowarski and P. Auger, French scientists in the Montreal Laboratory).	1943-1945
Photo	7	2	Chalk River - Inside the Station	Photographs showing the installation inside the Chalk River Station.	n.d.
Photo	8	2	Nuclear reactors : diagrams, graphs and building	Slides showing the interior and exterior of the Reactor's building and staff at work in Chalk River; contains also diagrams and graphs of the reactor's design	1962
<b>Nuclear Safety</b>					
Textual	4	1	International Control of Atomic Energy	Text of a Conference presented by George Laurence at the annual meeting of 1966-1967 of the Physics Club of Milwaukee for the University of Wisconsin Conference entitled : "International Control of Atomic Energy". Contains also the program of the meeting.	1967

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Textual	4	2	The Safety of Nuclear Power Stations	Different drafts of a Paper by G. Laurence entitled : "The Safety of Nuclear Power Stations" prepared for British Columbia Engineers". Contains "Reactor Safety", a text of a Talk to the Reactor Research and Development Symposium held in Chalk River in 1957 and draft of a paper entitled also "Reactor Safety" and finally "The Safety of Nuclear Power Stations in Canada".	1967
Textual	4	3	Reactor Safety in Canada	Contains the draft, the abstract and edited version (reprinted from the review Nucleonics) of a paper of G. Laurence entitled "Reactor Safety in Canada". Contains also the text of a lecture presented at the Meeting of the Niagara-Finger Lakes Section of the American Nuclear Society entitled "Nuclear Power Station Safety in Canada" and the draft of a text entitled : " Reactor Safety and Experience in Canada".	1957-1972
Textual	4	4	Papers on Nuclear Safety	Contains the following papers of G. Laurence : "The Development of Atomic Energy for Peaceful Purposes", "Safety Requirements for Nuclear Power Stations", "Suggested Reactor Safety Principles", "Safety and National Security", " Reactor Licensing in Canada" , " Probability Considerations in Reactor Appraisals". It contains also drafts on the NRX reactor accident in 1954 ; remarks to the Members of the Business Paper Editors Association on the occasion of their visit to Chalk River on January 27th and the manuscript of "Safe Use of Nuclear Energy".	1953-1969
Textual	4	5	Drafts of papers on Nuclear Safety	Contains drafts on the NRX reactor accident in 1954 ; remarks to the Members of the Business Paper Editors Association on the occasion of their visit to Chalk River on January 27th and the manuscript of "Safe Use of Nuclear Energy".	1964
Textual	4	6-7	Sketches of papers on Nuclear Safety	Contains some sketches of papers of G. Laurence on the topic on Nuclear Safety.	[196-]
Textual	4	8	Excerpts of George Laurence's Papers on the Safe Applications of Nuclear Energy		1953-1958

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Textual	4	9	Notebooks on Nuclear Safety	Contains two notebooks of G. Laurence on Nuclear Safety. One has the title : "Recommended Safety Provisions in Design of Nuclear Reactors" and the other pertains to a Meeting of October 16-17, 1961.	1961
Textual	4	10	Some Safety Considerations in the Design of CANDU	Draft of a text and calculation sheets	1953
Textual	4	11	Royal Society of Canada's Symposium on Proliferation of Nuclear Weapons	Contains correspondence, a copy of the "Treaty on the Non-Proliferation of Nuclear Weapons", sketches of a paper and draft of a presentation by G. Laurence.	1974
Textual	4	12	Some Memories of the Development of Safety Standarts in the Uses of Ionizing Radiation	Contains a text of G. Laurence entitled " Some Memories of the Development of Safety Standarts in the Use of Ionizing Radiation", and correspondence with Dr.Lauriston Taylor, president of the National Council on Radiation Protection and Measurements, at the occasion of his retirement.	1977
Textual	4	13	Article : the Anti-Nuclear Campaign	Contains drafts of an article by G. Laurence on the topic of nuclear safety and the edited version released in The North Renfrew Time of May 10 1978 under the title : "The Anti-Nuclear Campaign".	1978
Textual	4	14	Nuclear Safety : Relation to Media	Contains transcripts and notes of TV interviews of G. Laurence and a Atomic Energy Control Board (AECB) Statement on Nuclear Power Plan Safety from 1978.	1963-1978
Textual	4	15	Canada and the Atomic Bomb Drama	Contains a Press Release from August 13th 1945 of the Departement of Reconstruction entitled : "Canada's Role in Atomic Bomb Drama", a paper from G. Laurence "After Hiroshima", a reference paper from the Department of external Affairs entitled : "Three Powers Co-operation on Atomic Energy" , a paper by C.J. Mackenzie, president of the National Research Council entitled "Atomic Energy" and other related documentation on correspondence.	1945-1946
Textual	4	16	Nuclear safety : Correspondence	Correspondence of G. Laurence on the topic of Nuclear Safety, Contains, among others, correspondence about the 1964 United Nations Conference on Atomic Energy and a transcript of a United Nations Talk to Pembroke Collegiate Institute.	1963-1979
<b>National Research Council of Canada</b>					

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Textual	5	8	John Douglas Cockroft	File pertains to John Douglas Cockroft, director of the Montreal Laboratory of the National Research Council.	1940-1945
Textual	5	9	Montreal Laboratory - Minutes of meetings of the Polymer Unit and reports	Contains also a copy of the report "Measurement of the Diffusion Length of Thermal Neutrons in Graphite" a report on the present position in the M.A.U.D. Investigation and a general presentation of the Montreal Laboratory	1943-1944
Textual	5	10	Radiology	Correspondence, reports and calculation sheets related to the activities of the National Research Council pertaining to Radiology.	1940-1975
Textual	5	11	Radiographic Inspection Procedure For Light Alloy Casting Used in the National Research Council Laboratories	Contains a report from G.C. Laurence, L.W. Ball and W.J. Archibal' calculation sheets and related records.	1940-1975
Textual	5	12	River contamination	Correspondence, memorandum and calculation sheets related to the Ottawa river contamination by the Chalk River Station.	1946
Textual	5	13	Uranium Fission research	Correspondence, lists, reports and calculation sheets related to Uranium Fission Research at the National Research Council.	1941-1942
Textual	5	14	General papers on Nuclear Energy		1948
Textual	5	15	Administration notices		1944-1945
Textual	5	16	Heat transfer		1945
Textual	5	17	Hazards associated with Nuclear Fission other than the Primary functioning of a Fission Bomb		1946
Textual	5	18	Publicity	Contains correspondence of George Laurence with the National Research Council regarding the content of some of his lectures, on the topics of the atomic bomb, atomic energy and the history of nuclear physics. Contains also some correspondence concerning the use of information from his article "Methods and Materials of X-Rays Protection".	1944-1945
Textual	5	19	Meteorological instruments	Correspondence related to the meteorological instruments installed on the Chalk River Station.	1946
Textual	5	20	National Research Council - Correspondence		1942-1943
Textual	5	21	National Research Council - Correspondence		1946-1949
Textual	5	22	National Research Council - Atomic Energy Project - Correspondence		1943-1949

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Photo	7	3	Meteorological instruments	Photographs of the Chalk River Station in relation with the installation of Meteorological instruments.	1946
<b>Other Organisations</b>					
Textual	5	1--5	Canadian Association of Physicists - Laurence study - Correspondence	Correspondence related to the Laurence Study of the Canadian Association of Physicists. Its aim is to study the "Purpose and Choice in the Support of University Research in Physics".	1971
Textual	5	6	Canadian Association of Physicists	Contains manuscript of texts by George Laurence related to the activities of the Canadian Association of Physicists (CAP ) on the support of physics research in universities and on innovations, bulletins of the CAP, correspondence and a paper entitled : " Recommendation for action : A brief to be submitted to the Minister of State for Science and Technology by the Canadian Association of Physicists".	[195-]
Textual	5	7	Atomic Energy Canada Limited - Correspondence		1976-1977
Textual	6	1	International Atomic Energy Agency	Documentation of G. Laurence pertaining to the activities of the international Atomic Energy Agency . Contains draft and finale statue of the organisation, bulletins, list of governors and their staff, and draft of a lecture by George Laurence.	[196-]
Textual	6	2	United Nations Atomic Energy Commission	Records related to the activities of United Nations Atomic Energy Commission while G. Laurence was it's president (1946-1947). Contains also a copy of a press release sent by the Commission to G. Laurence in 1961 entitled "Approaches to Selection of Reactor Sites".	1946-1947
Textual	6	3	Special Committee of the Senate on Science Policy	Contains correspondence, drafts of letters and papers of G. Laurence related to this committee and a paper entitled "Comments on National Science Policy" .	1972
Photo	7	4	George Laurence's participation at international conferences and activities	Contains photographs of the first meeting of the Atomic Energy Commission of the United Nations in 1946, a picture of George Laurence's visit to London as president of the Canadian Atomic Energy Control Board in 1963 and at the General Conference of the International Atomic Agency in Vienna in 1967.	1946-1967
<b>Professionnal Life</b>					

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Textual	6	4	Biographical notes, Summary of Ph.D. Thesis and passport	Contains biographical information on G.C. Laurence, the summary of his Ph. D. Thesis "Velocities and Ranges of Alpha Particles". Contains also his Diplomatic Passport of 1966, while he was president of the Atomic Energy Control Board.	1931-1970
Textual	6	5	Correspondence		1929-1931
Textual	6	6	Publications	Contains a copy of 'Canadian Nuclear Technology' featuring an article on George Laurence. Contains also a publication of Zeitschrift für Physik of 1928 with a dedication from the authors to G. Laurence. Contains also summaries of papers for the 1972 Annual Conference of the Canadian Nuclear Association and Summaries of Lectures given at Chalk River in 1951 on Applied Nuclear Physics.	1928-1972
Photo	7	5	George Laurence's Professional Life - Photographs	Photographs of George Laurence in the course of his professional activities in Canada; contains, among others, a photograph of him with the Hon. C.D. Howe, C.J. Mackenzie and J.D. Cockroft. Contains also a picture with other past presidents of the Canadian Association of Physicists in 1970 for the 25th anniversary of the association..	1945-1970