

Herbert J. Hall Papers
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Manuscript Division, Library of Congress
Washington, D.C.
2023

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Prepared by Manuscript Division staff

Finding aid encoded by Manuscript Division staff, 2021
Revised 2023 April

Collection Summary

Title: Herbert J. Hall Papers

Inclusive Dates: 1910-2003

Bulk Dates: 1972-2001

ID no.: MSS85745

Creator: Hall, Herbert J., 1916-2004.

Extent: 106,000 items

Extent: 302 containers plus 1 oversize

Extent: 121.2 linear feet

Language: Collection material in English

Location: Manuscript Division, Library of Congress, Washington, D.C.

LC Catalog record: <https://lccn.loc.gov/mm2012085745>

Summary: Physicist. Correspondence, technical reports and papers, speeches, memoranda, drawings, patents, graphs, blueprints, calculations, notes, newspaper clippings, photographs, printed matter, and other research and supporting material relating to Hall's career as a physicist and his work in air pollution control and electrostatic precipitation.

Selected Search Terms

The following terms have been used to index the description of this collection in the LC Catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically.

People

Armiger, William J., Jr., 1931-2007.

Crommelin, Philip B. (Philip Benedict), Jr., 1930-2002.

Hall, Herbert J., 1916-2004.

Hudson, J. Albert (James Albert), 1919-2021.

Katz, Jacob, 1928-2018.

Keeler, Thomas R.

McDonald, J. R. (Jack Raymond), 1944-

Pfoutz, Bill D. (Bill Dean), 1932-2014.

Robinson, Myron, 1928-

Weinstein, Norman J.

White, Harry J. (Harry James), 1905-1988.

Organizations

American Electric Power Company.

Environmental Products and Services Company.

H.J. Hall Associates.

Metropolitan Edison Company.

Nothelfer Winding Laboratories.

Pennsylvania Electric Company.

Precipitator Technology, Inc.

Recon Systems, Inc.

Research Corporation.

Research-Cottrell, Inc.

Tennessee Valley Authority.

Subjects

Air pollution control industry.

Air--Pollution.

Consulting firms--United States.

Desulfurization.

Electric discharges.

Electromagnetic devices.

Electromagnetism.
Electrostatic apparatus and appliances.
Electrostatic precipitation--Design and construction.
Electrostatic precipitation--Equipment and supplies.
Electrostatic precipitation--Patents.
Electrostatic precipitation--Research.
Electrostatic precipitation.
Electrostatics.
Fly ash.
Gas dynamics.
Gas flow.
High voltages.
Nitrogen oxides.
Particulate matter.
Physics.
Power resources.
Power-plants.
Pulse circuits.
Pulse transformers.
Sulfur dioxide mitigation.
Sulfur oxides.

Occupations

Physicists.

Acquisition Information

The papers of Herbert J. Hall were given to the Library of Congress in 2012 by his three children, John L. Hall, Molly J. Hall, and Stephen W. Hall.

Processing History

The papers of Herbert J. Hall were arranged and described by Pang Xiong with the assistance of Jake Bozza, Tracey Barton, Rosa Hernandez, and Rachel Telford in 2021. Mold was discovered throughout the collection during the initial processing survey. Items with mold were removed and isolated from the rest of the collection. Material not affected by mold was arranged and described in 2021. From 2021 to 2022, Tracey Barton, Jake Bozza, Rosa Hernandez, and Pang Xiong remediated mold, and this material was processed as the 2023 Addition by Pang Xiong with the assistance of Rosa Hernandez. All papers in the addition have undergone mold remediation. A few artifacts containing samples of ash, flue dust, and glacier silt have been properly housed.

Transfers

Items have been transferred from the Manuscript Division to other custodial divisions of the Library. An audiotope and two video recordings have been transferred to the Motion Picture, Broadcasting, and Recorded Sound Division. Proceedings and a book have been transferred to the Science, Technology, and Business Division. All transfers are identified in these divisions as part of the Herbert J. Hall Papers. Patrons are encouraged to contact these divisions in advance of a research visit.

Copyright Status

Copyright in the unpublished writings of Herbert J. Hall in these papers and in other collections in the custody of the Library of Congress is reserved. Consult reference staff in the Manuscript Division for further information.

Access and Restrictions

The papers of Herbert J. Hall are open to research. Many collections are stored off-site and advance notice is needed to retrieve these items for research use. Researchers are advised to contact the Manuscript Reading Room prior to visiting.

Preferred Citation

Researchers wishing to cite this collection should include the following information: Container number, Herbert J. Hall Papers, Manuscript Division, Library of Congress, Washington, D.C.

Biographical Note

Date	Event
1916, Sept. 30	Born, Springfield, Mass.
1939	B.S., physics, Trinity College, Hartford, Conn.
1940	M.A., physics, University of Michigan, Ann Arbor, Mich.
1941	Graduate work for Ph.D. in physics at University of Michigan interrupted by World War II
1941-1945	Staff, Radiation Laboratory, Massachusetts Institute of Technology, Cambridge, Mass.
1943-1945	Worked in Office of Scientific Research and Development serving as United States representative for radar modulators in the United Kingdom and scientific and tactical military liaison for the British Royal Air Force
1945-1958	Physicist, senior physicist, and assistant director of research of the Electrical Precipitation Section, Research Corp. and Research-Cottrell, Bound Brook, N.J.
1946	Participated in atomic bomb testing at Bikini Atoll
1949	Married Georgine Fleming (divorced 1958)
1959-1961	Independent scientific consultant, Magnetic Specialties, Trenton, N.J.
1962-1968	Director of research and development, Research-Cottrell
1969-1972	Scientific consultant and vice president, Recon Systems, Princeton, N.J.
circa 1971-1973	Consultant, Precipitator Technology, Munhall, Penn.
1973-2001	President, H. J. Hall Associates, Princeton, N.J.
circa 1984-1996	Consultant, vice president, and technical director, Environmental Products and Services Co., South Plainfield, N.J.
2004	Died

Scope and Content Note

The papers of Herbert J. Hall (1916-2004) span the years 1910-2003, with the bulk of the material dating from 1972 to 2001. The collection pertains to Hall's career in the field of air pollution control and showcases his broad and in-depth experience with electrostatic precipitation. The papers are in English and are organized into ten series: [Research-Cottrell and Research Corporation](#), [Recon Systems and Precipitator Technology](#), [H. J. Hall Associates](#), [Environmental Products and Services Company](#), [Writing and Lecture File](#), [Projects](#), [Subject File](#), [Miscellany](#), [2023 Addition](#), and [Oversize](#).

The collection highlights Hall's efforts to improve air pollution control processes and systems by consulting on the design, engineering application, operation, and technical management of electrostatic precipitators at power plants and industrial facilities throughout the United States and internationally. This work was performed in his various positions, especially as president of H. J. Hall Associates (1972-2001). Very little material is included about his time with the Radiation Laboratory at the Massachusetts Institute of Technology and his activities during World War II. The [Projects](#) and [Subject File](#) series supplement and act as reference to Hall's work at Research Corporation, Research-Cottrell, Recon Systems, and H. J. Hall Associates. The collection also provides insight into his working relationships with William J. Armiger Jr., Philip B. Crommelin Jr., J. Albert Hudson, Jacob Katz, Thomas R. Keeler, Jack R. McDonald, Bill D. Pfoutz, Myron Robinson, Norman J. Weinstein, and Harry J. White.

The collection's series are listed and briefly described below. A fuller description of each series and a list of its contents can be accessed in the series descriptions with the container list.

The [Research-Cottrell and Research Corporation](#) series chronicles Hall's career from 1945 to 1968 and documents his activities relating to the application, development, fundamentals, and research of electrostatic precipitation and industrial gas cleaning.

The [Recon Systems and Precipitator Technology](#) series highlights Hall's career from 1969 to 1972 when he addressed air pollution control at both companies.

The [H. J. Hall Associates](#) series chronicles Hall's activities as president of his own science consulting firm from 1972 until 2001 where he consulted on all phases and facets of electrostatic precipitation and air pollution control systems.

The [Environmental Products and Services Company](#) series documents Hall's involvement with this company in the 1980s and 1990s.

The [Writing and Lecture File](#) contains lectures, speeches, and writings reflecting the breadth of Hall's contributions to the areas of air pollution control and electrostatic precipitation.

The [Projects](#) series contains background and research material for Hall's contracts and consultations with various private companies and public utilities.

The [Subject File](#) series contains topical files relating to Hall's activities and research interests in the fields of electrostatic precipitation and air pollution control technology.

The [Miscellany](#) series provides insight into Hall's interests and personal life and includes some documentation of his academic years and World War II activities.

The [2023 Addition](#) contains material initially removed from the collection for conservation purposes and complements the rest of the collection.

The [Oversize](#) series contains a commemorative paper weight, glacier silt, and volcanic ash souvenirs.

Arrangement of the Collection

This collection is arranged in ten series:

- [Research-Cottrell and Research Corporation, 1942-1970](#)
- [Recon Systems and Precipitator Technology, 1965-1973](#)
- [H. J. Hall Associates, 1972-2001](#)
- [Environmental Products and Services Company, 1952-2001](#)
- [Writing and Lecture File, 1947-2002](#)
- [Projects, 1967-1992](#)
- [Subject File, 1951-2002](#)
- [Miscellany, 1935-2003](#)
- [2023 Addition, 1910-1999](#)
- [Oversize, 1910-1993](#)

Description of Series

Container
BOX 1-24

Series
Research-Cottrell and Research Corporation, 1942-1970

The Research-Cottrell and Research Corporation series chronicles Hall's career from 1945 to 1968 and documents his activities relating to the application, development, fundamentals, and research of electrostatic precipitation and industrial gas cleaning. From 1945 to 1958, Hall worked in the laboratory at Research Corporation, a non-profit organization devoted to scientific advancement, education, and research through the distribution of grants. From 1959 to 1961, Hall was an independent scientific consultant with Magnetic Specialties and specialized in high-voltage and high-powered electromagnetic equipment. As a consultant, Hall worked closely with Research-Cottrell, the successor of Research Corporation's manufacturing division previously known as the the Precipitator Division. From 1962 to 1968, Hall served as the director of research and development of Research-Cottrell. His areas of expertise included aerosol physics, corona discharges, electrical discharges in gases, electromagnetic systems and equipment, high-voltage power supplies, and sulfur dioxide (SO₂) removal. The series features some of Hall's patents such as the electrostatic agglomerator and particle collection system. There is also documentation of his efforts to create a new type of electrostatic liquid cleaner. Also reflected in the series is his work with Nothelfer Winding Laboratories on charging choke, high-leakage reactance, and pulse transformers. Furthermore, the series reveals the close working relationship between Hall and Harry J. White, Myron Robinson, and others. He maintained friendships with colleagues at Research Corporation and Research-Cottrell throughout his career, and these individuals are later reflected in other series.

Material types include articles, blueprints, calculations, charts, correspondence, data samples, drawings, graphs, memoranda, newspaper clippings, notes and jottings, patents, photographs, printed matter, progress and technical reports, sketches, slides, and other papers.

Arranged alphabetically by topic or type of material.

BOX 24-34

Recon Systems and Precipitator Technology, 1965-1973

The Recon Systems and Precipitator Technology series highlights Hall's career from 1969 to 1972 when he addressed air pollution control at both companies. Hall was vice president and a consultant at Recon Systems, a scientific and engineering consulting firm specializing in air, solid waste, and water pollution control problems and systems. He worked closely with Norman J. Weinstein, founder of the company, and this is reflected in the series.

The bulk of the series comprises Hall's technical reports as a scientific consultant at Recon Systems on the topics of dust emission control, electrical discharges, electrostatic precipitators, fly ash precipitator designs, high-voltage power supplies, incinerator designs, pulser circuit, solid and liquid waste management, and sulfur dioxide (SO₂) and nitrogen oxide (NO_x) removal. Hall notably prepared a comprehensive market investigation on desulfurizing plants in the United States for Steinkohlen-Elektrizität Aktiengesellschaft (STEAG) of Germany, and this work is included in the series. Hall's work for Precipitator Technology, an air pollution company run by Jacob Katz, is mainly reflected in the technical reports from 1972 to 1973. Later in their careers, Hall and Katz would collaborate and lecture throughout the United States on the engineering, maintenance, and operation of electrostatic precipitators, and related material can be found in the Writing and Lecture File series.

Material types include background data and calculations, blueprints, consulting agreements, correspondence, drawings, graphs, handwritten and typed technical reports, memoranda, notes, research material, and other supporting papers.

Arranged alphabetically by topic or type of material.

BOX 34-162

H. J. Hall Associates, 1972-2001

The H. J. Hall Associates series chronicles Hall's activities as president of his own science consulting firm from 1972 until 2001 where he consulted on all phases and facets of electrostatic precipitation and air pollution control systems. With his broad and in-depth knowledge of electrostatic precipitators, Hall was able to work with clients in oil refineries, power generation, and cement, paper, and steel industries. This series comprises the bulk of the collection, and the technical reports make up the majority of the series. Hall's technical reports cover a range of topics including aerosol physics; ammonia (NH₃) conditioning; electrostatic precipitation application, design, maintenance, and operation; gas conditioning systems and gas flow dynamics; vendor bid analyses; high-voltage power supplies; mechanical collectors; rapping; scrubbers; stark opacity problems; and sulfur dioxide (SO₂) removal technology. The series includes final reports from 1983 to 2001 and working files containing background material and drafts of technical reports. Final reports from 1972 to 1982 are in the 2023 Addition.

Material types include administrative records, blueprints, brochures, calculations, charts, consulting agreements, correspondence, data, diagrams, drawings, handwritten and typed technical reports, lists, memoranda, newspaper clippings, notes, photographs, printed matter, research material, and other papers.

Arranged alphabetically by topic or type of material.

BOX 162-171

Environmental Products and Services Company, 1952-2001

The Environmental Products and Services Company (EPSCO) series documents Hall's involvement with this company in the 1980s and 1990s. The company was founded by William J. Armiger Jr. and consisted of a group of independent consultants who pooled their talents to treat large air pollution control and electrostatic precipitation problems. Hall led projects and studies and was referred to as the "dean of electrostatic precipitation" in final EPSCO reports. Technical reports from H. J. Hall Associates were usually incorporated into EPSCO reports for clients. Hall worked closely with William J. Armiger Jr., Philip B. Crommelin Jr., J. Albert Hudson, Jack R. McDonald, and Bill D. Pfoutz on the application, design, and operation of electrostatic precipitators in the electric utility industry. The series showcases EPSCO and Hall's involvement with the hot side to cold side conversion of electrostatic precipitators. In the 1970s, the hot side precipitator concept was developed and thought to be the answer to high-resistivity coals. Eventually, many precipitators began to fail due to inadequate structural design fuel analysis or undersized equipment. Hall and other EPSCO consultants provided inspections, performance predictions and modifications, and recommendations for hot side to cold side conversion of electrostatic precipitators. This series also chronicles Armiger's founding of EPSCON, the engineering and installation company created to complement EPSCO, and further documents the merger of EPSCON with F.L. Smidth & Co. of Denmark into EPSCON-FLS.

Material types include blueprints, brochures, consultant agreements, correspondence, data, drawings, graphs, memoranda, newspaper clippings, notes, photographs, printed matter, proposals, research material, studies, technical reports, and other papers.

Arranged alphabetically by topic or type of material.

BOX 172-185

Writing and Lecture File, 1947-2002

The Writing and Lecture File contains lectures, speeches, and writings reflecting the breadth of Hall's contributions to the areas of air pollution control and electrostatic precipitation. The papers and publications file consists primarily of a chronological file with drafts, notes, and published editions of scientific papers and technical reports. The lectures and seminars file includes a chronological file with drafts, notes, research material, and papers presented at conferences. Also included are topical files containing background data, notes, and research material relating to lectures and seminars presented by Hall. Reflected in the series are

Hall and Jacob Katz's collaborations on electrostatic precipitation seminars, which they presented throughout the United States from 1981 to the late 1990s. Thomas R. Keeler later joined them and presented along with Katz on the operation and maintenance of electrostatic precipitators while Hall focused on the technical aspects. Material types include bibliographies, blueprints, conference proceedings, consulting agreements, correspondence, charts, drawings, graphs, photographs, speeches, supporting material for lectures, reports, and other printed matter. Arranged by format and thereunder alphabetically or chronologically.

BOX 185-225

Projects, 1967-1992

The Projects series contains background and research material for Hall's contracts and consultations with various private companies and public utilities. This series supplements Hall's technical reports in the Recon Systems and Precipitator Technology and H. J. Hall Associates series. Included are correspondence, project specifications for installation of electrostatic precipitators, test data, reports, and research material relating to various projects. The series highlights some of Hall's consulting work for the American Electric Power Company, Metropolitan Edison Company, Pennsylvania Electric Company, and Tennessee Valley Authority. Material types include blueprints, charts, correspondence, diagrams and drawings, graphs, memoranda, photographs, printed matter, project proposals, reports, and other background and research material. Arranged alphabetically by name of company, power plant, or topic.

BOX 226-262

Subject File, 1951-2002

The Subject File series contains topical files relating to Hall's activities and research interests in the fields of air pollution control technology and electrostatic precipitation. These files were accumulated throughout his career and perhaps served as reference material for his projects and work. Particularly notable are his notebooks on electrostatic precipitators; collected catalogs, publications, reports, and other printed matter from various air pollution control associations, companies, and governmental agencies from 1954 to 2002; folders on high-resistivity ash and conditioning, nitrogen oxides (NO_x), and sulfur oxides (SO_x); and files on the impact of air pollution. Material types include abstracts, articles, bibliographies, blueprints, company brochures and catalogs, correspondence, court affidavits, drawings and diagrams, graphs, memoranda, newspaper clippings, notes, photographs, reports, and other printed matter. Arranged alphabetically by topic or type of material.

BOX 262-268

Miscellany, 1935-2003

The Miscellany series provides insight into Hall's interests and personal life and includes some documentation of his academic years and World War II activities. Also included in the series are decisions about his estate and photographs and slides relating to electrostatic precipitation. Material types include academic notebooks, correspondence, notes and jottings, notebooks, photographs, slides, and other papers. Arranged alphabetically by topic or type of material.

BOX 269-302

2023 Addition, 1910-1999

The 2023 Addition contains material initially removed from the collection for conservation purposes and complements the rest of the collection. All papers have undergone mold remediation and artifacts have been properly housed. This series contains final reports from the H. J. Hall Associates consulting firm from 1972 to 1982 and cover the time span not reflected in the reports in the H. J. Hall Associates series. Reports generally pertain to Hall's analyses of the design and operation of electrostatic precipitators and

include recommendations for improving and upgrading performance at various industrial facilities and power plants. Material in the series highlights Hall and his Research-Cottrell colleagues' efforts to document research and development activities relating to the evolution of new technology and hardware at Research-Cottrell from 1947 to 1966. Also included are two reports by Harry J. White prepared while at the Radiation Laboratory; Hall's contribution appears in the report on condenser charging in line type modulators. Hall's accomplishments are further reflected in patents, résumés, and other printed matter mentioning his achievements from 1962 to 1993.

Material types include administrative records, articles, blueprints, calculations, charts, correspondence, drawings, notes and jottings, patents, photographs, printed matter, progress and technical reports, résumés, and other papers.

Arranged and described according to the series from which items were initially removed and therein alphabetically by topic or type of material.

BOX OV 1

Oversize, 1910-1993

The Oversize series contains a commemorative paper weight, glacier silt, and volcanic ash souvenirs. Volcanic ash samples are from the eruption of Mount Saint Helens, Washington, and a commemorative paperweight contains flue dust removed from the first electrostatic precipitator on a copper smelter in 1910.

Arranged and described according to the series, containers, and folders from which the items were separated.

Container List

Container	Contents
BOX 1-24	<p>Research-Cottrell and Research Corporation, 1942-1970</p> <p>The Research-Cottrell and Research Corporation series chronicles Hall's career from 1945 to 1968 and documents his activities relating to the application, development, fundamentals, and research of electrostatic precipitation and industrial gas cleaning. From 1945 to 1958, Hall worked in the laboratory at Research Corporation, a non-profit organization devoted to scientific advancement, education, and research through the distribution of grants. From 1959 to 1961, Hall was an independent scientific consultant with Magnetic Specialties and specialized in high-voltage and high-powered electromagnetic equipment. As a consultant, Hall worked closely with Research-Cottrell, the successor of Research Corporation's manufacturing division previously known as the the Precipitator Division. From 1962 to 1968, Hall served as the director of research and development of Research-Cottrell. His areas of expertise included aerosol physics, corona discharges, electrical discharges in gases, electromagnetic systems and equipment, high-voltage power supplies, and sulfur dioxide (SO₂) removal. The series features some of Hall's patents such as the electrostatic agglomerator and particle collection system. There is also documentation of his efforts to create a new type of electrostatic liquid cleaner. Also reflected in the series is his work with Nothelfer Winding Laboratories on charging choke, high-leakage reactance, and pulse transformers. Furthermore, the series reveals the close working relationship between Hall and Harry J. White, Myron Robinson, and others. He maintained friendships with colleagues at Research Corporation and Research-Cottrell throughout his career, and these individuals are later reflected in other series.</p> <p>Material types include articles, blueprints, calculations, charts, correspondence, data samples, drawings, graphs, memoranda, newspaper clippings, notes and jottings, patents, photographs, printed matter, progress and technical reports, sketches, slides, and other papers.</p> <p>Arranged alphabetically by topic or type of material.</p>
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Research-Cottrell and Research Corporation, 1942-1970

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BOX 4	Electrostatic precipitators, design and data, 1956-1967
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Research-Cottrell and Research Corporation, 1942-1970

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Research-Cottrell and Research Corporation, 1942-1970

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Research-Cottrell and Research Corporation, 1942-1970

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BOX 17	Hydraulic fluid cleaning, 1962
BOX 17	Liquid-liquid and liquid-solid separations, 1962
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BOX 22	Pulse transformer development for G.O. 9014, 1961-1963 (2 folders)
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Recon Systems and Precipitator Technology, 1965-1973

The Recon Systems and Precipitator Technology series highlights Hall's career from 1969 to 1972 when he addressed air pollution control at both companies. Hall was vice president and a consultant at Recon Systems, a scientific and engineering consulting firm specializing in air, solid waste, and water pollution control problems and systems. He worked closely with Norman J. Weinstein, founder of the company, and this is reflected in the series.

The bulk of the series comprises Hall's technical reports as a scientific consultant at Recon Systems on the topics of dust emission control, electrical discharges, electrostatic precipitators, fly ash precipitator designs, high-voltage power supplies, incinerator designs, pulser circuit, solid and liquid waste management, and sulfur dioxide (SO₂) and nitrogen oxide (NO_x) removal. Hall notably prepared a comprehensive market investigation on desulfurizing plants in the United States for Steinkohlen-Elektrizität Aktiengesellschaft (STEAG) of Germany, and this work is included in the series. Hall's work for Precipitator Technology, an air pollution company run by Jacob Katz, is mainly reflected in the technical reports from 1972 to 1973. Later in their careers, Hall and Katz would collaborate and lecture throughout the United States on the engineering, maintenance, and operation of electrostatic precipitators, and related material can be found in the Writing and Lecture File series.

Material types include background data and calculations, blueprints, consulting agreements, correspondence, drawings, graphs, handwritten and typed technical reports, memoranda, notes, research material, and other supporting papers.

Arranged alphabetically by topic or type of material.

BOX 24	"1500 MA sets," 1965-1972
BOX 24	<i>Chemical and Engineering News</i> , 1969
BOX 24	Consulting agreement forms, circa 1969
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BOX 24	Drawings, 1969-1970

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BOX 25	Air Pollution Control Association Annual Meeting, St. Louis, Mo., 1970
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BOX 25	Scrubbers, 1967-1968
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BOX 34	Technical reports, list of Recon Systems reports from 1969 to 1972, circa 1972
BOX 34-162	H. J. Hall Associates, 1972-2001 The H. J. Hall Associates series chronicles Hall's activities as president of his own science consulting firm from 1972 until 2001 where he consulted on all phases and facets of electrostatic precipitation and air pollution control systems. With his broad and in-depth knowledge of electrostatic precipitators, Hall was able to work with clients in oil refineries,

H. J. Hall Associates, 1972-2001

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power generation, and cement, paper, and steel industries. This series comprises the bulk of the collection, and the technical reports make up the majority of the series. Hall's technical reports cover a range of topics including aerosol physics; ammonia (NH₃) conditioning; electrostatic precipitation application, design, maintenance, and operation; gas conditioning systems and gas flow dynamics; vendor bid analyses; high-voltage power supplies; mechanical collectors; rapping; scrubbers; stark opacity problems; and sulfur dioxide (SO₂) removal technology. The series includes final reports from 1983 to 2001 and working files containing background material and drafts of technical reports. Final reports from 1972 to 1982 are in the 2023 Addition.

Material types include administrative records, blueprints, brochures, calculations, charts, consulting agreements, correspondence, data, diagrams, drawings, handwritten and typed technical reports, lists, memoranda, newspaper clippings, notes, photographs, printed matter, research material, and other papers.

Arranged alphabetically by topic or type of material.

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BOX 49	1974 (6 folders)
BOX 50	1974 (8 folders)
BOX 51	1974 (8 folders)
BOX 51	1975
BOX 52	1975 (6 folders)
BOX 53	1975 (7 folders)
BOX 54	1975 (7 folders)
BOX 55	1975 (7 folders)
BOX 56	1975 (6 folders)
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BOX 58	1975 (3 folders)
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BOX 64	1976 (8 folders)
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BOX 67	1977 (11 folders)
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BOX 69	1977 (8 folders)
BOX 70	1978 (11 folders)
BOX 71	1978 (9 folders)
BOX 72	1978 (8 folders)
BOX 73	1978 (5 folders)
BOX 73	1979 (5 folders)
BOX 74	1979 (8 folders)
BOX 75	1979 (8 folders)
BOX 76	1979 (7 folders)
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BOX 79	1980 (2 folders)
BOX 80	1980 (10 folders)
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BOX 90	1981 (10 folders)
BOX 91	1981
BOX 91	1982 (8 folders)
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BOX 93	1982 (8 folders)
BOX 94	1982 (8 folders)
BOX 95	1982 (9 folders)
BOX 96	1982 (5 folders)
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BOX 116	1985 (7 folders)
BOX 117	1985 (5 folders)
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BOX 121	1986 (7 folders)
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BOX 162-171 **Environmental Products and Services Company, 1952-2001**

The Environmental Products and Services Company (EPSCO) series documents Hall's involvement with this company in the 1980s and 1990s. The company was founded by William J. Armiger Jr. and consisted of a group of independent consultants who

Environmental Products and Services Company, 1952-2001

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pooled their talents to treat large air pollution control and electrostatic precipitation problems. Hall led projects and studies and was referred to as the "dean of electrostatic precipitation" in final EPSCO reports. Technical reports from H. J. Hall Associates were usually incorporated into EPSCO reports for clients. Hall worked closely with William J. Armiger Jr., Philip B. Crommelin Jr., J. Albert Hudson, Jack R. McDonald, and Bill D. Pfoutz on the application, design, and operation of electrostatic precipitators in the electric utility industry. The series showcases EPSCO and Hall's involvement with the hot side to cold side conversion of electrostatic precipitators. In the 1970s, the hot side precipitator concept was developed and thought to be the answer to high-resistivity coals. Eventually, many precipitators began to fail due to inadequate structural design fuel analysis or undersized equipment. Hall and other EPSCO consultants provided inspections, performance predictions and modifications, and recommendations for hot side to cold side conversion of electrostatic precipitators. This series also chronicles Armiger's founding of EPSCON, the engineering and installation company created to complement EPSCO, and further documents the merger of EPSCON with F.L. Smidth & Co. of Denmark into EPSCON-FLS.

Material types include blueprints, brochures, consultant agreements, correspondence, data, drawings, graphs, memoranda, newspaper clippings, notes, photographs, printed matter, proposals, research material, studies, technical reports, and other papers.

Arranged alphabetically by topic or type of material.

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BOX 171	Vice president and technical director emeritus of EPSCO, photocopy of plaque announcing appointment, 1997
BOX 172-185	Writing and Lecture File, 1947-2002 <p>The Writing and Lecture File contains lectures, speeches, and writings reflecting the breadth of Hall's contributions to the areas of air pollution control and electrostatic precipitation. The papers and publications file consists primarily of a chronological file with drafts, notes, and published editions of scientific papers and technical reports. The lectures and seminars file includes a chronological file with drafts, notes, research material, and papers presented at conferences. Also included are topical files containing background data, notes, and research material relating to lectures and seminars presented by Hall. Reflected in the series are Hall and Jacob Katz's collaborations on electrostatic precipitation seminars, which they presented throughout the United States from 1981 to the late 1990s. Thomas R. Keeler later joined them and presented along with Katz on the operation and maintenance of electrostatic precipitators while Hall focused on the technical aspects.</p> <p>Material types include bibliographies, blueprints, conference proceedings, consulting agreements, correspondence, charts, drawings, graphs, photographs, speeches, supporting material for lectures, reports, and other printed matter.</p> <p>Arranged by format and thereunder alphabetically or chronologically.</p>

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BOX 224	Wisconsin Electric Power Co., 1967, 1983
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BOX 224	Wyodak Power Plant, Gillette, Wyo., 1983 (2 folders)
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BOX 226-262	Subject File, 1951-2002 The Subject File series contains topical files relating to Hall's activities and research interests in the fields of air pollution control technology and electrostatic precipitation. These files were accumulated throughout his career and perhaps served as reference material for his projects and work. Particularly notable are his notebooks on electrostatic precipitators; collected catalogs, publications, reports, and other printed matter from various air pollution control associations, companies, and governmental agencies from 1954 to 2002; folders on high-resistivity ash and conditioning, nitrogen oxides (NO _x), and sulfur oxides (SO _x); and files on the impact of air pollution. Material types include abstracts, articles, bibliographies, blueprints, company brochures and catalogs, correspondence, court affidavits, drawings and diagrams, graphs, memoranda, newspaper clippings, notes, photographs, reports, and other printed matter. Arranged alphabetically by topic or type of material.
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BOX 262-268	Miscellany, 1935-2003 The Miscellany series provides insight into Hall's interests and personal life and includes some documentation of his academic years and World War II activities. Also included in the series are decisions about his estate and photographs and slides relating to electrostatic precipitation. Material types include academic notebooks, correspondence, notes and jottings, notebooks, photographs, slides, and other papers. Arranged alphabetically by topic or type of material.
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BOX OV 1	Volcanic ash souvenir, Mount Saint Helens and Spirit Lake, Wash., 1980 <i>See Container OV 1, same heading</i>
BOX OV 1	Oversize, 1910-1993 The Oversize series contains a commemorative paper weight, glacier silt, and volcanic ash souvenirs. Volcanic ash samples are from the eruption of Mount Saint Helens, Washington, and a commemorative paperweight contains flue dust removed from the first electrostatic precipitator on a copper smelter in 1910. Arranged and described according to the series, containers, and folders from which the items were separated. 2023 Addition Miscellany
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