Schedule Number: N1-434-92-006

All items in this schedule are inactive. Items are either obsolete or have been superseded by newer NARA approved records schedules.

Description:

All permanent records were accessioned by the National Archives at Chicago in August 2003 under NRDC-434-02-0001, with the exception of items 16 and 86.

Items 16 and 86 were accessioned by the National Archives at Chicago TR-0434-2015-0225 and TR-0434-2015-0227.

Items 2, 3, 5, and 89 were marked off this schedule but were accessioned by NARA anyway under NRDC-434-02-0001.

Item 9 states disposition is not authorized. It will require a new schedule at some point.

All temporary records were destroyed January 2003 at the Chicago FRC.

INACTIVE - ALL ITEMS SUPERSEDED OR OBSOLETE

REQUEST FOR RECORDS DISPOSITION AUTHORITY

(See Instructions on reverse)

TO: NATIONAL ARCHIVES and RECORDS ADMINISTRATION (NIR)
WASHINGTON, DC 20408

1. FROM (Agency or establishment)
U.S. Department of Energy

2. MAJOR SUBDIVISION
Argonne National Laboratory (Contractor)

3. MINOR SUBDIVISION

4. NAME OF PERSON WITH WHOM TO CONFER
Joseph Suster (NARA, 5NC-C)

5. TELEPHONE
(312)353-0162

LEAVE BLANK (NARA use only)

JOB NUMBER
N1-434-92-6

DATE RECEIVED
11-12-1992

NOTIFICATION TO AGENCY

In accordance with the provisions of 44 U.S.C. 3303a the disposition request, including amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10.

DATE
2/11/93

ARCHIVIST OF THE UNITED STATES
Acting
Raymond A Mosley

6. AGENCY CERTIFICATION

I hereby certify that I am authorized to act for this agency in matters pertaining to the disposition of its records and that the records proposed for disposal on the attached 107 page(s) are not now needed for the business of this agency or will not be needed after the retention periods specified; and that written concurrence from the General Accounting Office, under the provisions of Title 8 of the GAO Manual for Guidance of Federal Agencies,

[X] is not required; [ ] is attached; or [ ] has been requested.

DATE	SIGNATURE OF AGENCY REPRESENTATIVE	TITLE
11/5/92	R. L. Henry	Director Records Management Div.

7. ITEM NO.	8. DESCRIPTION OF ITEM AND PROPOSED DISPOSITION	9. GRS OR SUPERSEDED JOB CITATION	10. ACTION TAKEN (NARA USE ONLY)
See ttached	Temporary and permanent records series related to the design, construction, and operation of Argonne National Laboratory's Zero Gradient Synchrotron and to associated subjects in physics.		

PREFACE

Often intermingled with permanent records are disposable materials which cannot be removed until the records are transferred to the National Archives where they can be screened during archival processing. The National Archives will remove records authorized for destruction under the following:

1. Records authorized for destruction by SF 115s approved for Department of Energy records;

2. Records authorized for destruction by the General Records Schedules;

3. Nonrecord and duplicate materials.

Permanent Items in N1-434-92-06

The following items in this job are permanent:

1, 6a, 7, 10, 11, 13a, 16, 18, 19, 20, 23, 24, 28a, 29, 30, 32, 33a, 33d, 33e, 34a, 35, 36, 37, 38, 39a, 40, 41, 43, 44, 49, 50, 52, 53, 55, 56, 58, 60, 61, 64, 66, 69, 70, 71, 72, 74, 76, 77, 79, 81, 82, 83, 84, 86, 87c, 88, 90a, 93, 94, 97, and 103.

Item Number: 1

Series Title: ZGS Construction Records of ANL's Plant Engineering Division

Volume: 9 c.f.

Box Number(s): 410-417, Accession 434-87-0009
5, Accession 434-91-0013

Dates: 1958-1964

Arrangement: Box 410 is arranged by memorandum number.
Boxes 411-415 are arranged by alpha-numeric subject codes.
Boxes 416-417 are unarranged.
Box 5 is arranged chronologically by progress report date.

Series Description: These files consist of memoranda, copies of incoming and outgoing correspondence, printed literature regarding architectural firms, construction proposals, technical specifications (particularly from the Sverdrup and Parcel Engineering Company,the primary engineering contractor for the ZGS complex), design and production schedules, construction reports, Svedrup and Parcel contract progress reports, and engineering bulletins. The records originated in ANL's Plant Engineering Division.

This series should be retained because it documents the initial phase of ZGS and support structure construction.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 2

Series Tile: Argonne National Laboratory ZGS Drawings

Volume: 8 c.f.

Box Number(s): 402-409, Accession 434-87-0009

Dates: 1959-1961

Arrangement: Numerically by shop drawing number (1-3660-1 through 6-365-401)

Series Description: Files consist of shop drawings (blueprints), vendor catalogs, floor plans, product specifications, plans for fire and safety protection systems, purchase requests, and copies of incoming and outgoing correspondence related to construction of the ZGS. Every detail concerning the building of the accelerator is seemingly documented in these files.

Disposition: Permanent, transfer to NARA immediately.

Authority: DOE 1324.2A, Schedule 14, Item 2d(2)

Item Number: 3

Series Title: Engineering Drawings of ZGS Site Buildings

Volume: 7 c.f.

Box Number(s): 141,145,147,154,156,157,159, Accession 434-87-0009

Dates: 1960-1968

Arrangement: Numerically by building number

Series Description: Engineering drawings and schematics,created by private contractors and kept by the PAD Plant Engineering Group, documenting the construction or modification of various buildings on the ZGS site. Intermixed within the series are vendor catalogs, vendor item operating instructions, product specifications, and Plant Engineering Group correspondence on the general subject of bubble chambers. The drawings and schematics illustrate both mundane and sophisticated electrical/mechanical components or structural modifications. Among the buildings represented by drawings are the 12 Foot Bubble Chamber (Bldg. D-374), the Experimental Proton Beam II Building (Bldg. D-375), and the 30 Inch Bubble Chamber Building (Bldg. D-371).

Disposition: Permanent, transfer to NARA immediately.

Authority: DOE 1324.2A, Schedule 14, Item 2(d)2

Item Number: 4

Series Title: ZGS Complex Layout

Volume: 1 c.f.

Box Number(s): 26, Accession 434-87-0009

Dates: 1979

Arrangement: Unarranged

Series Description: Page layouts, some b/w photographs, and other print material and graphics used to publish several issues (May-September, 1979) of the ZGS Users News Bulletin. The bulletin was a monthly compilation of ZGS events.

Information in this series is fragmented, meant for general consumption, and has little research value. It does not merit retention.

Disposition: Destroy immediately.

Authority: New item

~~Item Number: 5~~

Item Number: 5

Series Title: Original Records Of Sverdrup and Parcel Engineering of the ZGS

Volume: 2 c.f.

Box Number(s): 333,336, Accession 434-87-0009

Dates: 1959-1961

Arrangement: Box 333 is arranged by subject heading.
Box 336 is arranged by technical report number.

Series Description: This series consists of original survey and design records created by the St. Louis engineering firm of Sverdrup and Parcel, which was the primary design engineering contractor for the ZGS. Box 333 contains proposed structural designs and accompanying computations for most buildings in the ZGS complex. Box 336 contains technical reports on several subjects such as site selection for the ZGS, proposed cooling and communications systems for the complex, ring magnet power supplies, etc.

These records should be retained because they document the design phase of ZGS construction.

Disposition: Permanent, transfer to NARA immediately.

Authority: DOE 1324.2A, Schedule 14, Item 1(b)3

Item Number: 6

Series Title: ZGS Users Bulletin (Publication)

Volume: 2 c.f. (Hollinger boxes)

Box Number(s): 205,309a,b, 310a, Accession 434-87-0009

Dates: 1966-1979

Arrangement: Chronological by date of publication

Series Description: The ZGS Users Bulletin was a monthly, sometimes bi-monthly publication of the Particle Accelerator Division and its successors. In January, 1975 it was retitled as The High Energy Physics Research Report and Users News Bulletin. The purpose of the publication was to provide "better information and closer communication between users of the ZGS and personnel doing the scheduling, and providing and operating the facilities." A typical issue contained a summary of monthly operations, a review of the status of various ZGS experiments, and the "as run" schedule of experiments performed that particular month.

The ZGS Users Bulletin series is an easily accessible source of information about the ZGS and the bureaucracy that operated it and should be retained.

a. Record copies of the Users Bulletin (Boxes 309 a,b and 310a)

   Disposition: Permanent, transfer to NARA immediately.

   Authority: New item

b. ~~Extra copies of the~~ Users Bulletin (Box 205)

   ~~Disposition: Destroy immediately.~~

   ~~Authority: Non-record material~~ Non-record

Item Number: 7

Series Title: The Argonne News (Publication)

Volume: 1 c.f.

Box Number(s): 437, Accession 434-87-0009

Dates: 1951-1979

Arrangement: Rough chronological

Series Description: Series is composed of single copies of a monthly employee newsletter published by Argonne National Laboratory (ANL). Each edition documents various official and unofficial activities around the laboratory. The ZGS is mentioned sporadically throughout, but the publications should be retained primarily for their informational and evidential values concerning ANL as a whole.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 8

Series Title: Proceedings of the Heavy Ion Fusion Workshop (Publication)

Volume: 7 c.f.

Box Number(s): 6,14,15,17,20,35,36, Accession 434-87-0009

Dates: 1980

Arrangement: Unarranged

Series Description: Printed copies (61) of the Proceedings of the Heavy Ion Workshop sponsored by Lawrence Berkley Laboratory-University of California, and the Stanford Linear Accelerator Center. The workshop took place October 29-November 9, 1979. Publishing was supervised by the National Technical Information Service, U.S. Department of Commerce.

Though attended by several ANL scientists, the workshop (fourth of a series) took place after decommissioning of the ZGS. Its objective was "to study the physics of high-intensity heavy-ion accelerators to assess their promise as ignitor systems for inertially confined fusion."

Non-record

Disposition: Destroy when no longer needed for reference.

Authority: Non-record, technical reference material

Item Number: 9

Series Title: Heavy Ion Inertial Fusion Workshop- Videotapes

Volume: 1 c.f.

Box Number(s): 21, Accession 434-87-0009

Dates: 1978 (September 25)

Arrangement: None

Series Description: This records series is composed of eight video cassettes (format unknown), each documenting a scientific presentation made at the Heavy Ion Inertial Fusion workshop hosted by Argonne National Laboratory in 1978 (third of a series). One presentation was made by R. Arnold of ANL. Secondary sources indicate synchrotrons were a discussion topic at the workshop, but whether the ZGS or experiments conducted on the ZGS were specifically mentioned cannot be ascertained.

Disposition: Retain until informational content of series is verified. Further disposition not authorized.

Authority: New item

Item Number: 10

Series Title: Heavy Ion Fusion Engineering Drawings

Volume: 2 c.f.

Box Number(s): 99,100, Accession 434-87-0009

Dates: 1977-1979

Arrangement: Unarranged

Series Description: These boxes contain annotated reference copies of engineering drawings related to the construction of the Heavy Ion Fusion Beam Demonstration Facility (HEARTHFIRE). High energy accelerator technology is related to that of controlled thermonuclear fusion. HEARTHFIRE was one of several "spin-off" activities that ANL's Accelerator Research Facilities Division pursued to retain trained staff before and after the decommissioning of the ZGS. It was concieved as a "method of producing nuclear fusion energy through microexplosions of small fuel pellets driven by intense beams of charged particles (heavy ion)." HEARTHFIRE, however, was not constructed and the project was eventually terminated for lack of funds.

This series documents one outgrowth of Argonne's ZGS/HEP program and should be retained to illustrate ANL's post-ZGS history.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 11

Series Title: Tokamak Fusion Test Reactor Publications (TFTR)

Volume: 5 c.f.

Box Number(s): 91-95, Accession 434-87-0009

Dates: 1974-1978

Arrangement: Unarranged

Series Description: Some ANL Accelerator Research Facilities Division employees were involved in ANL's Controlled Thermonuclear Fusion Research Program (CTR). One aspect of the CTR program was ANL's involvement with the development of a tokamak fusion test reactor, in collaboration with the Westinghouse Group, at the Princeton Plasma Physics Lab.

These boxes contain R.L. Kustom's copies of published manuals, plans, summaries, scientific articles, studies, and reports (General Atomic Company Reports, GAC-ANL Scoping Studies, design reports, Fusion Power Program Numbered Reports, etc.) generated by the Princeton/Westinghouse Group, as well as Oak Ridge, Lawrence Livermore, and Argonne National Laboratories concerning tokamak reactor studies.

These files document the place of Argonne in the nationwide development of the Tokamak system and related experiments and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 12

Series Title: Duplicate Copies of ZGS Users News Bulletins and ZGS Experiment Propsals

Volume: 1 c.f

Box Number(s): 1, Acession 434-87-0009

Dates: 1963-1977

Arrangement: Unarranged

Series Description: Box contains duplicate copies of ZGS Users Bulletins (1969-1974) already appraised as permanent in item 6 and duplicate ZGS experiment proposals (1963-1977) already appraised as permanent in item 62 of this appraisal.

Non-record

Disposition: Destroy when no longer needed for reference.

Authority: Non-record material duplicative of permanent records

Item Number: 13

Series Title: Stocks of Various ANL/DOE/ERDA Publications

Volume : 1 c.f.

Box Number(s): 2, Accession 434-87-0009

Dates: 1976-1979

Arrangement: Unarranged

Series Description: Multiple copies of several ANL/DOE publications, including the following:

ANL - Hearthfire Reference Concept #3-A Rapid Cycling Synchrotron System, 6/16/78
Heavy Ion Fusion Program Plan- Presentation to the Office of Laser Fusion, 1/17/79
DOE - Final Report of Ad Hoc Experts Group on Fusion, 6/78
Policy for Fusion Energy, 9/78
ERDA - Summer Study of Heavy Ions for Inertial Fusion, 12/76

The ANL publications should be retained for their information about non-high energy physics projects and proposals that evolved from the development and operation of the ZGS (see items 10 and 11).

a. ANL publications

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

b. DOE, ERDA, and other non-ANL publications

Disposition: Destroy immediately.

Non-record

Authority: Non-record, technical reference material

Item Number: 14

Series Title: CERN Courier (Publication)

Volume: 1 c.f.

Box Number(s): 450, Accession 434-87-0009

Dates: 1971-1981

Arrangement: Chronological

Series Description: Reference copies of the CERN Courier, a monthly publication of the European Organization for Nuclear Research, containing scientific articles related to subnuclear physics.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Non-record

Item Number: 15

Series Title: Card Index to Non-ANL Scientific Publications

Volume: 1 c.f.

Box Number(s): Metal drawer 12, Accession 434-87-0009

Dates: Varied

Arrangement: Alphabetical by author's surname

Series Description: Series consists of an alphabetical card index listing the author, title, and publication date of scientific articles and reports generated from a variety of sources in the world scientific community. The index may apply to some of the technical reference material present among the ZGS/ANL records being appraised.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Non-record

Item Number: 16

Series Title: Author Files

Volume: 10 c.f. (Hollinger boxes)

Box Number(s): 319 a,b-328 a, Accession 434-87-0009

Dates: 1956-1981

Arrangement: Alphabetical by surname of author and thereunder unarranged

Series Description: Files contain scholarly reports written by Argonne employees, primarily related to the establishment, operation, and research activities of the ZGS. The files consist of published and unpublished articles, papers presented at local, national, and international symposia, abstracts, proposals, reference reports, graphics, photos, blueprints accompanying articles and reports, requests for release of unclassified documents, and correspondence related to the presentation or publication of a paper. Some files contain articles completed before their authors were employed at Argonne.

These records should be retained. Though many of the papers have been published, it would be nearly impossible to recreate the series. Supporting documentation found in these files is not always found in the final publication.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 17

Series Title: Duplicate Author Files

Volume: 3 c.f.

Box Number(s): 229-231, Accession 434-87-0009

Dates: 1957-1969

Arrangement: Alphabetical by surname of author

Series Description: Duplicate copies of records described in item 16. Author files in boxes 230 and 231 belonged to E.A. Crosbie of the Accelerator Division.

Disposition: Destroy immediately.

Authority: Non-record material duplicative of permanent records

Non-record

Item Number: 18

Series Tile: Accelerator Reports of the Accelerator Research Facilities Division

Volume: 1 in.

Box Number(s): 310 b, Accession 434-87-0009

Dates: 1957-1969

Arrangement: Numerical by report number

Series Description: This series contains seven printed technical reports concerning operation of the ZGS and proposed designs for other high energy physics devices (see item 20).

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 19

Series Title: Progress Reports of the Argonne Accelerator Group

Volume: 1 in.

Box Number(s): 310 b, Accession 434-87-0009

Dates: 1954-1955

Arrangement: Numerical by report number

Series Description: These are ten brief reports detailing theoretical issues in high energy physics related to the design of the ZGS (see item 20).

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 20

Series Title: Numbered Internal Notes of the Particle Accelerator Division, Accelerator Division, and High Energy Facilities Division

Volume: 2 c.f. (Hollinger boxes)

Box Number: 310 b, 311 a, Accession 434-87-0009

Dates: 1955-1970

Arrangement: Numerical by note number (1-80)

Series Description: Narratives, with supporting graphs,drawings, and calculations documenting various theoretical and practical issues in high energy physics related to the design, maintenance, and operation of the ZGS. These formal notes appear to have been written for the information of other ANL employees only.

Item 18,19, and 20 each document different phases in the history of the ZGS. Some reports in item 18 relate to modifications of the ZGS to make it a functional device into the 1980's. Initial design considerations are documented in item 19. Item 20 primarily illustrates the mid-life operation of the machine. These series should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 21

Series Title: High Energy Physics Division Employee Monthly Reports

Volume: 1 c.f.

Box Number(s): 167, Accession 434-87-0009

Dates: 1966-1979

Arrangement: Rough alphabetical by surname of HEPD employee

Series Description: Box contains one paragraph reports, written in APS abstract style by individual HEPD employees, describing their most important work or accomplishments of the past month. These reports were submitted directly to the division's director for potential inclusion in the HEPD monthly accomplishment report.

The brevity and style of the reports limit their informational value. Substantive events concerning HEPD/ZGS operations are better documented in other series.

Disposition: Destroy immediately.

Authority: New item

Item Number: 22

Series Title: Lepton Files

Volume: 1 c.f.

Box Number(s): 33, Accession 434-87-0009

Dates: 1974-1977

Arrangement: Subject

Series Description: Copies of scientific articles and papers, presentation notes, transparencies, and other reference materials belonging to ANL members of the Lepton Experiment Study Group. (A lepton can be any of a family of subatomic particles including the electron and the muon.) The group also included scientists from CERN, Fermilab, and the High Energy Physics Laboratory at Stanford University.

Most documents in this series appear to be reference copies of published papers. There is no information present about the purpose or history of the organization.

non-record

Disposition: Destroy immediately.

Authority: Non- record, technical reference material

Item Number: 23

Series Title: Machine Research Experiment Requests and Reports

Volume: 1 c.f.

Box Number(s): 220, Accession 434-87-0009

Dates: 1972-1979

Arrangement: Correspondence is arranged chronologically. Reports are arranged numerically (AE 15-1 to AE 19-2).

Series Description: Series consists of formal requests made by AD and ARFD employees for ZGS machine research time in order to test, calibrate, or modify various components of the synchrotron or measure the operational performance of those components. A typical request contains a description of what was to be done to the machine, the names of personnel performing the test(s),and an estimate of how much machine shift time was required to complete the experiment.

Also included are brief written reports summarizing the results of the equipment tests, measurements, or modifications. Correspondence is filed in three binders and consists primarily of research experiment requests. The reports are in case files and are usually accompanied by a copy of the research request. These records belonged to the ZGS Operations Group and should be retained to help document accelerator research involving the ZGS.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 24

Series Title: Multiple Author Technical Reports

Volume: 3 c.f.

Box Number(S): 459-461, Accession 434-87-0009

Dates: 1959-1969

Arrangement: Alphabetical by surname of first listed author

Series Description: These reports are similar in content to those described in item 30 and some are duplicates from that series. A majority of the reports are unique, however, not only for their subject matter but because they have multiple authors, not all of whom were Particle Accelerator Division (PAD) or Accelerator Division (AD) employees. Many of the reports are brief and appear to have been written for the information and use of other PAD/AD employees rather than scientific publication.

This series provides additional technical information about the operation of the ZGS and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item Number: 25

Series Title: CERN Committee Minutes and Reports

Volume: 1 c.f.

Box Number(s): 109, Accession 434-89-0009

Dates: 1967-1980

Arrangement: Subject

Series Description: Series is composed of information copies of agendas and minutes of various CERN (European Organization for Nuclear Research) committees and a board responsible for research in high energy physics. Also included are copies of some technical reports and scientific articles resulting from the work of these groups. The records are not directly related to the operation of ANL or the ZGS.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Non-record

Item Number: 26

Series Title: Published Reports- Ronald L. Martin

Volume: 13 c.f.

Box Number(s): 462-474, Accession 434-87-0009

Dates: 1953-1979

Arrangement: Unarranged

Series Description: Published and unpublished technical reports originating from ANL and other institutions and organizations. Files belonged to Ronald L. Martin (Director of the Accelerator Research Facilities Division, 1973-1979)

a. (Box 462) Box consists of quarterly status reports, scholarly papers, and publications generated by Stanford Linear Accelerator Center (SLAC) employees or outside scholars conducting experiments at SLAC.

b. (Box 463) Box contains Department of Energy reports, publications, papers, and policy notices. There are also copies of papers published and presented at scholarly conferences by Argonne employees as well as employees of other laboratories (national and international).

c. (Box 464) Copies of internal and external reports generated by the High Energy Physics (HEP) Division, quarterly progress reports, technical memoranda, publications of the "Fusion Power Program", scholarly papers, and HEP numbered memos.

non-record

d. (Box 465) Box consists primarily of reports and scholarly papers presented by Brookhaven employees/ affiliates, as well as some reports generated by employees/affiliates of the Cambridge Electron Accelerator, several Canadian nuclear facilities, and the European Organization for Nuclear Research (CERN).

e. (Box 466) Published reports generated by ANL and other research institutions, including reports of the Fusion Power Program.

f. (Box 467) Box contains numbered reports of Stanford Synchrotron Radiation Projects, SLAC numbered project reports, and scholarly papers concerning high energy physics research at Stanford University.

g. (Box 468) Box consists of reports and papers related to physics and nuclear energy research generated by employees and affiliates of Stanford University, University of California, University of Illinois, University of Michigan, Yale University, and other institutions.

h. (Box 469) Reports and scholarly papers written by Brookhaven employees and guests of the Brookhaven Laboratory.

i. (Box 470 Box consists of Fusion Power Program Quarterly Reports, Fusion Power Studies, Argonne CTR Quarterly Progress Reports, Argonne CTR Technical Memos, and other fusion studies carried out at Argonne National Laboratory.

j. (Box 471 Box contains numbered publications, scholarly papers, reports, copies of articles submitted to journals, and group reports generated by employees/affiliates of Fermi National Accelerator Laboratory.

k. (Box 472) Published or photocopied technical reports, scholarly papers, and scientific articles written by employees/affiliates of various universities and laboratories (including Argonne) located thoughout the United States and Europe. These reports and articles relate to a number of esoteric subjects in physics including nuclear fuel breeding, laser fusion, proton radiography (an alternative to x-rays),and different forms of nuclear energy conversion. None of the documents appears to be an original or record copy. Non-record

l. (Box 473) Box consists of reports, papers, speeches, and supporting documentation generated by employees/ affiliates of CERN.

m. (Box 474) Reports, publications, and papers generated by research institutions, such as CERN, Columbia University, Daresbury (England), and Fermi National Accelerator Lab.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Non-record

Item Number: 27

Series Title: Published Reports

Volume: 7 c.f.

Box Number(s): 430-436, Accession 434-87-0009

Dates: 1964-1980

Arrangement: Alphabetical by name of country of publication or presentation, institution (university or other national laboratory), or council.

Series Description: Boxes contain published and unpublished reports, scholarly papers, and technical notes related to research in high energy physics. Sample did not reveal reports/papers written by Argonne employees. Many of the reports/papers are in foreign languages.

Non-record

Disposition: Destroy immediately.

Authority: Non-record, technical reference material.

Item Number: 28

Series Title: Research Reports

Volume: 2 c.f.

Box Number(s): 214-215, Accession 434-87-0009

Dates: 1965-1974

Arrangement; Chronological

Series Description: These boxes contain copies of monthly, quarterly, and annual operational narratives created by the High Energy Physics Division, the Particle Accelerator Division, and their successors primarily for the information of the U.S. Atomic Energy Commission. Here is a specific breakdown of the reports:

Monthly Physical Research Reports	1965-1974
Quarterly Reports	1966-1968
Annual HEP Accomplishment Reports	1965-1968

The reports summarize ANL activities in high energy physics and ZGS operations for the designated periods. Included is information on ZGS experiments and staff time expenditures. Also in the cartons are two folders containing a mix of ANL press releases, newspaper clippings, copies of articles from scientific publications, and administrative correspondence concerning distribution of the aforementioned reports.

The various reports are convenient synopses of ZGS operations and related ANL activities over a ten year period and should be retained for their research value. The correspondence and related clippings and releases have limited informational value and do not merit further retention.

a. Research reports

Disposition: Permanent,transfer to NARA immediately.

Authority: New item

b. Correspondence and related items

Disposition: Destroy immediately.

Authority: New item

Item Number: 29

Series Title: Student Reports

Volume: 1 c.f. (Hollinger boxes)

Box Number (s): 317b, 318a,b, Accession 434-87-0009

Dates: 1972-1981

Arrangement: Alphabetical by surname of student

Series Description: These files consist of reports on ZGS and high energy physics research done under the supervision of the Accelerator Division and its successor, the Accelerator Research Facilities Division, by students in the Undergraduate Research Participation Program, Honors Research Participation Program, Summer Engineering Practice School, and Resident Student Associate Program. Each paper lists the institutional affiliation of the student and his division supervisor/mentor. Some files also include copies of subsequent publications or conference presentations of the paper.

These reports help illustrate ANL-university relations at the time and document ANL/ZGS educational programs. They also provide additional information about the user/experiment history of the ZGS and ANL's Accelerator Division/Accelerator Research Facilities Division (see item 74). Though a majority of the 30 reports in this series concern experiments and research not involving the ZGS, all these reports should be retained for their research value. Similar reports and particle accelerator experiment records have been appraised as permanent in superseded DOE Order 1324.2, Items C19/7A and C19/15D.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 30

Series Title: Technical Reports-Particle Accelerator Division, Accelerator Division, and Accelerator Research Facilities Division

Volume: 6 c.f.

Box Number(s): 290, 293-294, 304, 306-307, Accession 434-87-0009

Dates: 1955-1976

Arrangement: Alphabetical by author's name

Series Description: Technical reports written by members of the Particle Accelerator Division and its successor divisions primarily, though not exclusively, concerning the design, construction, operation, and maintenance of the ZGS and various individual components. These reports, which usually consist of narrative, drawings, and pictures appear to have been written for publication in scientific journals or for presentation before interested parties.They cover a variety of theoretical and practical concepts related to high energy physics. An index to the reports is also included.

These records should be retained for their information about the operation of the ZGS.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 31

Series Title: Duplicate Technical Reports - Particle Accelerator Division, Accelerator Division, and Accelerator Research Facilities Division

Volume: 9 c. f.

Box Number(s): 166, Accession 434-87-0009, 328b, 329a,b, 330a,b, 331a,b, 332a,b, 337a,b, 338a,b, 339a,b, 340a (Hollinger boxes), Accession 434-87-0009

Dates: 1955-1976

Arrangement: Alphabetical by author's name

Non-record

Series Description: Reference copies of reports described in item 30.

Disposition: Destroy immediately.

Authority: Non-record material duplicative of permanent records

Item: 32

Series Title: Indices to Technical Reports of PAD, AD, and ARFD Employees

Volume: 4 c.f.

Box Number(s): Metal drawers 12a,b and seven ring binders, Accession 434-87-0009
Boxes 3-4 (12 binders), Accession 434-91-0013

Dates: 1957-1981

Arrangement: Alphabetical by name of author or title of report

Series Description: This series consists of index card files and binders that catalogue, by author and title, published technical reports and scientific articles written by ANL employees concerning either ZGS experiments or a variety of topics connected with the study of high energy physics. The cards and binders, through partially duplicative, constitute a comprehensive finding aid to technical reports found in other series (items 24 and 30) and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 33

Series Title: 12 Foot Hydrogen Bubble Chamber Files

Volume: 13 c.f.

Box Number(s): 25,28,38-47,49, Accession 434-87-0009

Dates: 1963-1978

Arrangement: Boxes 28,39,44,45,46,47, and 49 are unarranged.
Boxes 40,41,42, and 43 are arranged by decimal file system numbers.
Boxes 25 and 38 are arranged by subject.

Series Description: These files consist of reports, manuals, copies of incoming and outgoing correspondence, operational log books, vendor catalogs, instructional manuals, journal articles, author/reading files, engineering diagrams, technical proposals, bids, b/w photographs, employee work schedules, overtime authorizations, and other material relating to the construction, operation, and research activities of the 12 ft. bubble chamber.

a. (Box 39) This box contains the minutes of 1967-1969 12 Foot Bubble Chamber Safety Committee meetings, correspondence concerning 1974-1976 bubble chamber safety tests, and general correspondence on the subject of 12 ft. bubble chamber safety.

These records document 12 ft. bubble chamber safety policies and concerns and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

b. (Boxes 25,28,38,40-43) Boxes contain the subject correspondence files of the 12 Foot Bubble Chamber Group. The files have both administrative and program correspondence (1968-1977) generated by different members of the group, including its leader (Anthony Tamosatis) and his deputy (Klaus Jaeger). Intermixed within the files are bubble chamber operating logs (1969-1973), engineering notes and drawings, contract proposals and bids to produce various bubble chamber components, operating manuals, and technical reference materials.

This series documents both the actions of 12 Foot Bubble Chamber Group and the construction and operation of the bubble chamber itself and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

c. (Boxes 44-46) Series consists of routine administrative documents such as reimbursement requests, employee overtime authorizations, and information copies of experiment proposals. Also present are stocks of blank forms and office supplies. Box 45 contains the author/chronological files of several bubble chamber group employees and unidentified b/w photographs of bubble chamber components.

Disposition: Destroy immediately.

Authority: GRS 6,1(b), GRS 3a(2), and non-record material

d. (Box 47) Box contains the working files of Dr. Larry Turner, resident research associate of the High Energy Physics Division, who was an early and continual contributor to the 12 ft. hydrogen bubble chamber project. Included are copies of correspondence, engineering notes, raw calculations, and other data concerning such subjects as "thermal turbulence," hydrogen refrigeration, "stopping beams" and bubble chamber vibrations.

Dr. Turner's records should be retained for their information about the 12 ft. bubble chamber's operation.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

e. (Box 49) These are the working files of Kenneth B. Martin, associate cryogenic (low temperature) engineer at ANL and an original contributor to the construction of the 12 ft. hydrogen bubble chamber. This series, which spans from 1968 to 1970, includes correspondence and diagrams on deuterium gas processing and production, and deuterium oxide (heavy water) procurement. Both deuterium gas and deuterium oxide were used in cryogenic bubble chamber operations at ANL.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 34

Series Title: <u>12 Foot Bubble Chamber Subcontractor Records</u>

Volume: 1 c.f.

Box Number(s): 107, Accession 434-87-0009

Dates: 1964-1973

Arrangement: Unarranged

Series Description: Correspondence, reading files, travel vouchers, and original and duplicate copies of agreements and contracts documenting outside consultant work performed by several contractors on the 12 ft. bubble chamber for the benefit of the High Energy Physics Division.

The correspondence and contracts should be retained for their informational value concerning the 12 ft. bubble chamber which, at that time, was the pre-eminent device of its kind in the world. The travel and reimbursement vouchers are disposable.

a. Consultant/HEP correspondence and contracts

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

b. Travel and reimbursement vouchers

GRS item

Disposition: Destroy immediately.

Authority: GRS 9/1(a)3

Item: 35

Series Title: 12 Foot Hydrogen Bubble Chamber Operations Manual

Volume: 1.75 c.f. (3 binders)

Box Number(s): 72,82, Accession 434-87-0009

Dates: 1969-1972

Arrangement: Numerical by binder number

Series Description: Record copy of technical guidance concerning 12 ft. hydrogen bubble chamber operating procedures. Information within each binder is arranged by chamber component.

This manual should be retained for its information about an historic piece of ZGS equipment.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 36

Series Title: 12 Foot Hydrogen Bubble Chamber Emergency Procedure and Quick Response Procedures Manual

Volume: .25 c.f.

Box Number(s): 72, Accession 434-87-0009

Dates: 1970-1976

Arrangement: Numerical by procedure number within binder

Series Description: Record copy of technical guidance concerning 12 ft. hydrogen bubble chamber emergency operating procedures.

This manual should be retained for its information about the bubble chamber's safety features.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 37

Series Title: Control Logs for 12 Foot Bubble Chamber

Volume: 6 c.f.

Box Number(s): 208-213, Accession 434-87-0009

Dates: 1969-1978

Arrangement: Chronological by date of entry

Series Description: Volumes contain daily entries of operational and maintenance activities related to the 12 ft. bubble chamber control room. A typical entry includes the following: date, shift (I,II,III), crew (A,B,C), notes on equipment operation, malfunctions, and repairs. There are a few photographs documenting equipment readings and damage.

These logbooks document the day to day operation of the bubble chamber over a ten year span. A bubble chamber is an instrument for detecting the actions of atomic and subatomic particles emerging from particle accelerators. The 12 ft. bubble chamber, constructed at ANL and used in conjuction with the ZGS, was the largest device of its kind in the world. Its construction was considered by contemporaries to be a significant accomplishment in the field of high energy physics.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 38

Series Title: 12 Foot Hydrogen Bubble Chamber Reports

Volume: 1 c.f. (Hollinger boxes)

Box Number(s): 311 b, 312a,b, Accession 434-87-0009

Dates: 1964-1978

Arrangement: Numerical by report number (1-167)

Series Description: Reports similar in purpose and content to those described in item 40, but relating to the design, construction, and operation of 12 ft. hydrogen bubble chamber. An index is included.

These records provide information about one of the largest bubble chambers ever constructed and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 39

Series Title: Argonne National Laboratory Publication Concerning ZGS Bubble Chambers and the ZGS in General

Volume: 5 c.f.

Box Number(s): 448,449, 451-453, Accession 434-87-0009

Dates: 1966-1972

Arrangement: Unarranged

Series Description: Multiple copies of various ANL publications concerning bubble chamber technology, streamer chamber technology, the ZGS in general, and other subjects related to high energy physics. Several publications document the proceedings of international conferences and local workshops sponsored by ANL during the designated dates. Most prominently featured is a detailed and voluminous 1969 safety analysis of the ZGS's 12 ft. hydrogen bubble chamber.

The record copies of these publications merit permanent retention because they help document the status of bubble chamber technology in the late 1960's and early 1970's. In particular, the 12 ft. hydrogen bubble chamber safety analysis is important because it addresses environmental concerns over the chamber's operation.

a. Record copies of all publications

Disposition: Permanent, transfer to NARA immediately.

Authority: New

b. ~~Non-record~~ copies of all publications

Non-record

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Item: 40

Series Title: Superconducting Bubble Chamber Reports

Volume: 1 c.f. (Hollinger boxes)

Box Number(s): 308 a,b, 434-87-0009

Dates: 1962

Arrangement: Numerical by report number (1-76)

Series Description: These are brief technical reports, authored by different members of the Bubble Chamber Group, concerning the design and operation of the 10 Inch Superconducting Bubble Chamber, a component of the ZGS. Included with the reports are supporting graphs and diagrams. There is also present an index to the reports.

This series provides information about a specific component of the ZGS and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 41

Series Title: Operational Logs of the 40 Inch Heavy Liquid Bubble Chamber

Volume: 2 c.f.

Box Number(s): 7,9, Accession 434-87-0009

Dates: 1966-1970

Arrangement: Chronological by date of entry

Series Description: The volumes in this series are similar in form and content to those described in item 37 except these relate to the 40 Inch Heavy Liquid Bubble Chamber and specifically document the progress of experiments performed with it.

ZGS operations and the advancement of bubble chamber technology went hand in hand. The 40 in. heavy liquid bubble chamber was the largest of its kind at the time of its operation. Along with the 12 ft. bubble chamber and the 30 in. bubble chamber, the 40 in. chamber was an important piece of experimental equipment and its operational record should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 42

Series Title: Bubble Chamber Reports

Volume: 10 c.f.

Box Number(s): 288,291-292,295-298,301,303,305, Accession 434-87-0009

Dates: 1966-1970

Arrangement: Alphabetical by author, source, or subject

Series Description: These boxes contain copies of publications, scientific articles, committee reports, engineering notes, lectures, and ANL internal reports concerning bubble chamber technology and related subjects, such as cryogenics and superconductivity magnet technology. The reference materials originate from a variety of sources including universities, other research laboratories, individual physicists and engineers, Federal agencies, and private industry. ANL reports are duplicates of those in item 30. All reports belonged to the Bubble Chamber Group. The ZGS utilized several bubble chambers to help track the creation and motion of subatomic particles.

Non-record

This series is a mini- library about bubble chambers and related subjects.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Item: 43

Series Title: Safety Files of the ZGS Safety Coordinator

Volume: 10 c.f.

Box Number(s): 221-222,237,261,265-270, Accession 434-87-0009

Dates: 1965-1979

Arrangement: Unarranged. Folders are generally titled by subject, area, system, or piece of equipment.

Series Description: These files consist of memos, copies of incoming and outgoing correspondence, vendor literature, instruction reports, safety film catalogs, notices of safety improvements,safety complaints, notes and notices of various safety committee (Radiation Safety, Electrical Safety,ZGS operations safety, etc.) meetings, organization charts, notices of policy,administrative safety guides, monthly health and safety reports, and other records related to the safe operation of the ZGS. Files span the tenure of several safety coordinators including R.B. Wehrle, J.H. Martin, Royce Jones,R.D. Roman, and R.E. Picha.

This series should be retained because it documents ZGS safety policy and practices. The issue of employee safety is particularly relevant given the mission of ANL generally and the ZGS specifically.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 44

Series Title: Bubble Chamber Safety Files

Volume: 3 c.f.

Box Number(s): 238,241-242, Accession 434-87-0009

Dates: 1964-1971

Arrangement: Unarranged

Series Description: Records are similar in content and purpose to those described in item 42 except that these relate specifically to safety issues involving the operation of the 30in., 40in., and 12 ft. bubble chambers of the ZGS. These files belonged to R.E. Picha, one time chairman of the Special Hazards Committee and a ZGS safety coordinator.

This series documents safety matters related to the operation of major ZGS components and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 45

Series Title: Quality Assurance Records Relating to the ZGS Ring Magnet

Volume: 1 c.f.

Box Number(s): 334, accession 434-87-0009

Dates: 1961-1963

Arrangement: By subject

Series Description: Box contains correspondence, quality control test computations,test drawings and sketches, and other records primarily related to production of the ring magnet component of the ZGS by Baldwin Lima- Hamilton (BLH) Corporation of Philadelphia, Pennsylvania. Several of the test files belong to George Laverick, who was an ANL quality control supervisor at the time. Material test certificates from Lukens Steel Company, a BLH subcontractor are also present.

Disposition: Destroy immediately.

Authority: DOE 1324.2a, Schedule 14, Item 6a

Item: 46

Series Title: Safety Reference Files

Volume: 5 c.f.

Box Number(s): 243-247, Accession 434-87-0009

Dates: 1955-1969

Non-record

Arrangement: Box 243 is unarranged.
Boxes 244-247 are arranged by assigned item number (H-1 to M-115).

Series Description: Reference copies of safety publications from a variety of sources including Federal agencies, universities, laboratories, and private industry. Boxes 244-247 contain printed articles specifically concerning hydrogen safety. An index is included.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Item: 47

Series Tile: Working Files of Kostas Burba

Volume: 10 c.f.

Box Number(s): 102,104-105,108,111-114,116,118, Accession 434-87-0009

Dates: 1958-1979

Arrangement: Unarranged

Series Description: Personal files of Kostas Burba, an Electrical Engineering Group engineer who worked on a variety of ZGS projects. Series includes information copies of PAD correspondence, vendor catalogs, product performance specifications, contractor proposals, raw notes and calculations concerning a variety of projects, annotated copies of engineering drawings, copies of purchase requests, procurement logs, equipment operating instructions, and copies of Sverdrup and Parcel Engineering Company technical reports on ZGS structures.

Most records in this series are either technical reference material, duplicates of records found in other retained series, administrative in character, or have limited informational value.

Disposition: Destroy immediately.

Authority: New item

Item: 48

Series Title: Working Files of Robert J. Burke

Volume: 6 c.f.

Box Number(s): 101,142-144,148,158, Accession 434-87-0009

Dates: 1962-1980

Arrangement: Unarranged

Non-record

Series Description: Dr. Robert J. Burke was associated with experiments involving the fission and fusion of ions and was a member of the Fusion Power Program, Heavy Ion Fusion Technology Working Group, the Ion Beam Fusion Group, and the ANL Ad Hoc Fusion-Fission Hybrid Study Group. His files include copies of incoming and outgoing memos and letters (not all generated by or addressed to Burke), copies of technical reports and scientific articles, handwritten notes, budget figures, copies of purchase requisitions, conference and meeting records, a few photographs, copies of vendor catalogs, and unidentified diagrams and blueprints.

These records are the personal convenience files of Dr. Burke. There is little original material present and the bulk is either administrative or reference in character and unrelated to the ZGS.

Disposition: Destroy immediately.

Authority: Non-record convenience copies and technical reference material

Item: 49

Series Title: Subject Files of Thomas H. Fields

Volume: 10 c.f.

Box Number(s): 22,103,106,110,115,117,119,120-122, Accession 434-87-0009

Dates: 1965-1974

Arrangement: Alphabetical by subject

Series Description: Subject files of Dr. Thomas H. Fields, High Energy Physics Division Director 1964-1974 and Associate Laboratory Director for High Energy Physics 1973-1977. Files are both administrative and program in character and consist of incoming and file copies of outgoing memoranda and letters, information copies of internal memoranda, copies of technical reference publications and scientific articles, reports, a few engineering drawings, and related matter.

These files, though somewhat duplicative of records found in other series, document Dr. Fields' tenure as a prominent ANL administrator and his substantial contributions to the successful operation of the ZGS. The series should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 50

Series Title: Engineering Notes of Robert B. Jacobs

Volume: 2 c.f.

Box Number(s): 206,227, Accession 434-87-0009

Dates: 1965-1969

Arrangement: Numerical by binder number

Series Description: Robert B. Jacobs was a private consultant hired by the High Energy Physics Division. Series consists of Jacobs' letters, memoranda, notes, and accompanying worksheets to E. Gale Pewitt regarding the design and construction of the 12 ft. hydrogen bubble chamber. Included are three safety analysis reports (1966,1968,and 1969) on the chamber. Mr. Jacobs was also a member of the 12 Foot Hydrogen Bubble Chamber Safety Committee.

Mr. Jacobs' records merit continued retention for their informational value concerning the evolution of the 12 ft. bubble chamber.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 51

Series Title: Working Files of R.L. Kustom

Volume: 3 c.f.

Box Number(s): 96-98, Accession 434-87-0009

Dates: 1959-1976

Arrangement: Unarranged

Series Description: Personal working files of Dr. Robert L. Kustom, who joined ANL in 1958 and rose through the ranks to become Director of the Accelerator Research Facilities Division in August, 1979. This series is composed of copies of various technical publications and scientific articles, engineering notes and drawings,unidentified computer printouts with annotations, ring binders and notebooks filled with unidentified mathematical calculations, and a small amount of official and personal correspondence. Aside from the technical publications, the data in these records is too arcane to be of value and should not be retained.

Disposition: Destroy immediately.

Authority: New item

Item: 52

Series Title: Working Files of R.J. Lari

Volume: 1.5 c.f.

Box Number(s): 234-235, Accession 434-87-0009

Dates: 1964-1970

Arrangement: Box 234 is arranged in reverse chronological order by date of computer calculation. Box 235 is unarranged.

Series Description: This series consists of drawings, graphs, narratives, and computer calculations of magnetic fields generated by ZGS magnets or proposed magnet components, as measured by R.J. Lari of the Accelerator Division.

The ZGS accelerated nuclear particles by electromagnetism. The records in this series help document the relationship of electromagnetism to ZGS operations and should be retained.

Disposition: Permanent,transfer to NARA immediately.

Authority: New item

Item: 53

Series Title: Working Files of J.J. Livingood

Volume: 1 c.f. (Hollinger boxes)

Box Number(s): 342a,b, Accession 434-87-0009

Dates: 1955-1966

Arrangement: Chronological

Series Description: Boxes contain Dr. Livingood's personal copies of correspondence, reports, and proposals concerning the design and ultimate location of the ZGS. Original notes are also included. J.J. Livingood was the first director of the Accelerator Group and its successor, the Particle Accelerator Division.

Dr. Livingood's files help document the design phase of ZGS construction and also touch upon the controversy that surrounded the device's site selection (some in the academic community wanted the ZGS built in Madison, Wisconsin).

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 54

Series Title: Working Files of Floyd H. Munson

Volume: 3 c.f.

Box number(s): 273,278-279, Accession 434-87-0009

Dates: 1963-1975

Arrangement: Unarranged

Series Description: Personal files of Floyd H. Munson, longtime PAD/HEF supervisor. Series consists primarily of information copies of PAD/HEF correspondence. Most correspondence is administrative in character, concerning such subjects as personnel appointments,bureaucratic reorganization, employee safety and training, storage space, labor grievances, and work schedules. Intermixed with the correspondence are technical reference publications from a variety of sources, annotated engineering drawings, handwritten notes, and copies of ZGS operations schedules.

Most records in this series are either technical reference material, duplicates of records found in other retained series, or have limited informational value concerning the ZGS.

Disposition: Destroy immediately.

Authority: New item

Item: 55

Series Title: Experiment Notebooks of A.R. Passi

Volume: 5 c.f.

Box Number(s): 3,8,10,16,18, Accession 434-87-0009

Dates: 1963-1976

Arrangement: Unarranged

Series Description: This series consists of binders maintained by Dr. A.R. Passi, an Experiment Planning and Operations (EPO) Group engineer, that document changes made to the ZGS to ready it for approved experiments. The EPO Group was responsible for making technical modifications to the ZGS that were necessary in order to perform prescribed experiments.

Each binder is identified by experiment number, but not all experiments have binders. A typical binder contains a copy or summary of the experiment proposal, a list of laboratory and experiment personnel involved, cost and time estimates concerning installation of experiment necessities, installation criterion, engineering notes and drawings, service requests, and reference copies of correspondence from a variety of sources.

These records should be retained because they illustrate modifications made to the ZGS throughout its operational history and provide information on the planning and execution of specific experiments on the machine.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 56

Series Title: Subject Files of E.G. Pewitt

Volume: 36 c.f.

Box Numbers: 5,24,27,29,34,52-67,68,70,71,76-78,80,81,83,85-90,
Accession 434-87-0009

Dates: 1960-1973

Arrangement: By subject

Series Description: Office files of Dr. E.G. Pewitt, project manager responsible for the design and construction of the 12 Foot Hydrogen Bubble Chamber. Included are correspondence, budget and construction data, reports, memoranda, technical materials relevant to the operation of the equipment, chronological files, slides, transparencies (b/w and color).

These records should be retained because of their information about the design and construction of the ZGS's 12 ft. hydrogen bubble chamber.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 57

Series Title: Working Files of James D. Simpson

Volume: 3 c.f.

Box Number(s): 232,233,236, Accession 434-87-0009

Dates: 1969-1979

Arrangement: Unarranged

Series Description: Personal working files of James D. Simpson of the Accerator Division. Series consists of copies of various scientific publications printed by ANL and other laboratories, copies of technical reports and notes written by Particle Accelerator Division and Accelerator Division employees, rough drafts of other reports, drawings, a few photographs, and convenience copies of program and administrative correspondence, most not written by or addressed to Simpson.

All records in this series are either technical reference material, duplicates of records found in other retained series, or have limited informational value.

Disposition: Destroy immediately.

Authority: New item

Item: 58

Series Title: Working Files of L.C. Teng

Volume: 1 c.f.

Box Number(s): 1, Accession 434-91-0013

Dates: 1963-1965

Arrangement: Unarranged

Series Description: Series consists of six binders containing reference copies of PAD correspondence and experiment proposals, notes, graphs, and mathematical calculations distributed to or originated by L.C.Teng, PAD director (1962-1967) and prime mover behind creation of the ZGS. These records concern the early development (1964) of the ZGS's proton beam, provide analysis of proton beam characteristics, and document the early settings and calibration of several pieces of ZGS equipment. Most notes and calculations are titled and organized so they could be referred to for their informational value about certain ZGS operations.

These records detail Dr. Teng's contribution to the ZGS's creation and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 59

Series Title: Master Maintenance Logs of Major Equipment

Volume: 1 c.f.

Box Number(s): 84, Accession 434-87-0009

Dates: 1971-1978

Arrangement: By name of equipment then by date of monthly report

Series Description: Series consists of binders containing monthly maintenance reports on different pieces of equipment. A typical report is subdivided into sections concerning "Troubles, Causes, Remedies," "Major Maintenance Performed" and "Elapsed Time." All entries are unattributed and it is unclear as to what ZGS component these equipment maintenance reports relate to. Most entries document routine equipment inspections, installations,and replacements.

Disposition: Destroy immediately.

Authority: DOE 1324.2A, Schedule 2, Item 7(c)(4)(a)

Item: 60

Series Title: Proton Beam 9 and Proton Beam 10 Log Books

Volume: 2 c.f.

Box Number(s): 383,384, Accession 434-87-0009

Dates: 1972-1977

Arrangement: Chronological

Series Description: The ZGS operated by creating beams of atomic particles, either protons or mesons, then extracting and directing these beams toward "targets." The subsequent collision (interaction) of the beams with the targets produced the subatomic fragments to be studied.

Proton Beam Lines 9 and 10 were sophisticated tunnels through which proton beams, extracted from the ZGS, traveled to Experimental Proton Area II (EPBII) and were then fed into the 12 ft. hydrogen bubble chamber to enhance the detection of subatomic particles. The log books contain calculations, graphs, b/w photographs, and other data entries related to the operation and maintenance of these lines.

The ZGS utilized many beam lines and their logs should be retained for information about a vital synchrotron component.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 61

Series Title: Experimental Area Log Books

Volume: 9 c.f.

Box Number(s): 177-181,187,189,192,193, Accession 434-87-0009

Dates: 1963-1979

Arrangement: Rough chronological order

Series Description: Operations, special purpose, and program logs documenting daily activities of the machinery and experiment program of the ZGS. Included are staff comments about different projects and operational problems. Though data is raw, it does provide a comprehensive view of ZGS activities from the machine's inception to its decommissioning. The information should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 62

Series Title: ZGS Experiment Proposal Files

Volume: 5 c.f.

Box Number(s): 198-202, Accession 434-87-0009

Dates: 1963-1979

Arrangement: Numerical by proposal number (P1 to P462)

Non-record

Series Description: This series is a complete set of all 462 experiment proposals or proposal summaries submitted to the ZGS Program Committee for its approval. Most files contain only a copy of the experiment proposal or summary and a few pieces of related correspondence. These records are fully accounted for in items 64 and 74, which have been appraised as permanent.

Disposition: Destroy immediately.

Authority: Non-record material duplicative of permanent records.

Item: 63

Series Title: Copies of ZGS Experiment Proposals

Volume: 2 c.f.

Box Number(s): 224,225, Accession 434-87-0009

Dates: 1965-1978

non-record

Arrangement: Numerical by proposal number (P-80 to P-450)

Series Description: Duplicate copies of ZGS experiment proposals (item 62).

Disposition: Destroy immediately.

Authority: Non- record material duplicative of permanent records

Item: 64

Series Title: Withdrawn ZGS Experiment Proposals

Volume: 3 c.f.

Box Number(s): 203-204,207, Accession 434-87-0009

Dates: 1963-1979

Arrangement: Numerical by proposal number

Series Description: These files contain copies of incoming and outgoing correspondence, memos, proposals, diagrams, charts, and notices of rejection or withdrawal of the proposal. Following receipt in the High Energy Physics Division, proposals for ZGS experiments (received from Argonne employees, university faculty, and other national labs) were reviewed by the ZGS Program Committee. If proposals were unacceptable, notices were sent to the submitters, enumerating why the proposal was rejected. Among the reasons given for the rejection were: magnitude of the experiment too large, similar experiment performed or planned, experimental calculations flawed, or experiment not a high priority. Some proposals were withdrawn and modified to reflect new technology. When proposals were incorporated into an accepted experiment, an "E" number usually appears above the proposal number.

This series is useful in assessing ZGS experimental requirements and priorities. The records also illustrate ANL's relationship to the university community at that time and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 65

Series Title: Withdrawn ZGS Experiment Proposals- HEF/EPO Copies

Volume: 2 c.f. (Hollinger boxes)

Box Number(s): 315a,b, 316a,b, 317a, Accession 434-87-0009

Dates: 1963-1979

Arrangement: Numerical by proposal number

Non-record

Series Description: High Energy Facility Division/Experiment Planning and Operations Group copies of withdrawn ZGS experiment proposals described in item 64 of this appraisal.

Disposition: Destroy immediately.

Authority: Non-record, duplicate copies of permanent records

Item: 66

Series Tile: ZGS Operations Schedules

Volume: 1.5 c.f. (Hollinger boxes)

Box Number(s): 11a,b,d,e, Accession 434-87-0009

Dates: 1966-1979 (weekly schedules)
1966-1978 (monthly schedules)

Arrangement: Chronological

Series Description: Series is composed of weekly and monthly operational schedules of the ZGS and components. The monthly and weekly schedules themselves are divided into two types: those that show future operations and as-run. The first type documents experiments and other operations to be performed on the ZGS during a two to four week period after issuance of the schedule. The as-run schedules document the actual performance of the accelerator and related experimental facilities during a one to four week period preceding issuance of the current schedule.

These records detail actual ZGS operations for nearly the full life of the machine and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 67

Series Title: Duplicate ZGS Operations Schedules

Volume: 1 c.f.

Box Number(s): 186

Dates: 1975-1978

Arrangement: Chronological

Series Description: Reference copies of records described in item 66.

Non-record

Disposition: Destroy immediately.

Authority: Non-record, duplicate copies of permanent records

Item: 68

Series Title: High Energy Physics Division (HEPD) Secretary Files

Volume: 2 c.f.

Box Number(s): 164-165, Accession 434-87-0009

Dates: 1972-1979

Arrangement: Unarranged

Series Description: Series consists of the working files of several HEPD secretaries. Included are copies of incoming and outgoing correspondence, employment applications and resumes, personnel directives, employee accomplishment and biography sheets, scholarly papers and reports, travel authorizations, schedules of HEP seminars (1977), copies of The Argonne Bulletin, reports of scanning and measuring operations (1972-1978), and purchase requests (1975-1976).

Non-record

These records primarily document routine administrative functions (personnel, procurement, travel, etc.) within HEPD. There are few program records and no originals. Series is a duplicative convenience file that does not merit retention.

Disposition: Destroy immediately.

Authority: Non-record, convenience file

Item: 69

Series Title: Chronological Files of the Director of the High Energy Physics Division

Volume: 1 c.f.

Box Number(s): 137, Accession 434-87-0009

Dates: 1965-1973

Arrangement: Chronological

Series Description: Reading file copies of administrative and program correspondence written by Thomas Fields, who was Division Director (1964-1974).

Though these files are normally considered non-record, they should be retained as informational backup to the subject files they relate to (item 49), which are not nearly as well organized and accessible.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 70

Series Tile: Subject Correspondence Files of the Director of the Particle Accelerator Division and Successor Divisions

Volume: 31 c.f.

Box Number(s): 240,249-260, Accession 434-87-0009
360a,b to 376 a,b,c,d (Hollinger boxes), Accession 434-87-0009
2, Accession 434-91-0013

Dates: 1956-1975

Arrangement: Boxes 2,240 and 249-260 are unarranged.
Boxes 360-376 are arranged by alpha-numeric subject code.

Series Description: This series consists of the subject correspondence files of four directors of the Particle Accelerator Division and successor divisions. In chronological order, the directors were J.J. Livingood (1956-1958), A.V. Crewe (1958-1961), L.C. Teng (1962-1967), and R.L. Martin (1967-1979). The file items of each director are intermixed within subject headings.

These are program correspondence files interspersed with some administrative material. Several binders are also present. They consist of incoming and file copies of outgoing correspondence, technical reports, drawings, graphs, rough notes, calculations, b/w photographs, and related items documenting the operations of the ZGS, the Particle Accelerator Division, the Accelerator Division, and the Accelerator Research Facilities Division. Both intrafacility and external memoranda and letters are present. The records are particularly useful in defining the life cycle of the ZGS and its special components from their theoretical conception to their actual construction and operation. They should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 71

Series Title: Subject Correspondence Files of the Associate Laboratory Director for High Energy Physics and Directors of the High Energy Physics Division

Volume: 27.5 c.f.

Box Number(s): 168-176,182-184,188,190,
191,194,195,215,217(.5c.f)218,228.
Accession 434- 87-0009
1-7, Accession 434-88-000

Dates: 1964-198

Arrangement: Rough alphabetical by subject

Series Description: This is a shared series of subject correspondence files generated by five different Associate Laboratory Directors and two HEP Division Directors. The files are a combination of program and administrative correspondence, though more weighted toward administrative matters. Specifically, the files consist of incoming and file copies of outgoing memoranda and letters, information copies of internal memoranda, copies of technical reference publications and scientific articles, reports, work orders, drawings,b/w and color photographs, committee meeting minutes,staff announcements, and related documents. Examples of subject topics are as follows: "Manpower Census", "Propaganda", "Affirmative Action Plans", "ZGS Operations Schedules", "Records of the ZGS Operations Committee", "Equipment Loans" "GAO" "Superconductivity" "Personnel Appointments" "12 ft. Bubble Chamber", "Energy", and"Foreign Travel".

Many records in this series document routine administrative matters or are reference items. There are, however, some records directly related to ZGS operations, such as those of the ZGS Operations Committee. On a broader basis, these subject files help document the relationship of two ANL bureaucratic units, the Associate Director's Office and the High Energy Physics Division,to various Federal agencies, universities, and the scientific community during the life of the ZGS. These records should be retained not only for their informational value about the ZGS, but also for the informational and evidential value they have concerning ANL's administration of the ZGS program.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 72

Series Title: Chronological Files of the Associate Laboratory Director for High Engery Physics

Volume: 2.5 c.f.

Box Number(s): 217 (.5 c.f.), 219,223, Accession 434-87-0009

Dates: 1968-1980

Arrangement: Chronological

Series Description: Reading file copies of administrative and program correspondence written by four Associate Laboratory Directors: Bruce Cork (1968-73), Thomas Fields (1973-77), Gerald Smith (1978-79), and Robert Diebold (1979-80).

Though these files are normally considered non-record,they should be retained as informational backup to the subject files they relate to (item 71), which are not nearly as well organized and accessible.

Disposition; Permanent, transfer to NARA immediately.

Authority: New item

Item: 73

Series Title: Technical Reference Files of the Associate Laboratory Director for High Energy Physics

Volume: 1 c.f.

Box Number(s): 239, Accesssion 434-87-0009

Dates: 1967-1979

Arrangement: By type of publication

Series Description: Series consists of reference copies of The High Energy Physics Research Report and Users News Bulletin (1975-1979), various Atomic Energy Commission publications, copies of ANL's annual report (1967-1973), and several FY 1979 HEARTHFIRE heavy ion fusion reports.

These publications were maintained for the reference of the associate director. The Users Bulletin is already appraised as permanent (item 6).

Non-record

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Item: 74

Series Title: Particle Accelerator Division (and successors) Completed Experiment File

Volume: 17 c.f. (Hollinger boxes)

Box Number(s): 343a,b,-359 a,b, Accession 434-87-0009

Dates: 1963-1979

Arrangement: Numerical by experiment number (E-1 to E-462, not inclusive)

Series Description: These files document the administrative history of experiments proposed and completed on the ZGS by various users. A typical file contains the following: 1. a formal proposal describing what the experiment is supposed to accomplish and how it is to be performed, 2. correspondence between the user and the ZGS Program Committee, which was responsible for evaluating and approving experiment proposals, 3. correspondence between the ZGS Program Committee, and the ZGS Operations Committee, and 4. technical drawings, specifications, and computations concerning the experiment. Some files also contain preliminary reports about an experiment's results.

This series documents the user/experiment history of the ZGS from it inception to its decommissioning. It also illustrates the administrative processes and considerations that were applied in determining the feasibility of proposed experiments and approving them.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 75

Series Title: Particle Accession Division Standards Reference Books

Volume: 2 c.f.

Box Number(s): 335,438, Accession 434-87-0009

Dates: 1959-1962

Arrangement: By alpha-numeric subject code assigned each standard

Series Description: This series consists of six binders of equipment specifications, engineering specifications, and technical drawings related to mechanical and electrical equipment and processes used in components or systems of the ZGS. The standards were prepared and approved by the PAD Standards Committee.

Disposition: Permanent, transfer to NARA immediately.

Authority: DOE 1324.2A, Schedule 14, item 2(d)

Item: 76

Series Title: Work Project Files- Particle Accelerator Division

Volume: 12 c.f.

Box number(s): 130-136,146,149,153,155,160, Accession 434-87-0009

Dates: 1958-1972

Arrangement: Numerical by work project number (1000-4004, not inclusive)

Series Description: These files consist of internal and external correspondence, monthly progress status reports, requisitions, product specifications,design justifications, statements of work project costs, and work project authorizations relating to the design,fabrication, assembly, and operation of the ZGS.

These files document the early and intermediate stages of ZGS design and development and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

~~Item: 77~~

Item: 77

Series Title: Particle Accelerator Division/Accelerator Division Staff Meeting Notes

Volume: 3 c.f.

Box Number(s): 340b, 341a,b (Hollinger boxes),248, Accession 434-87-0009

Dates: 1956-1969

Arrangement: Numerical by consecutive note number

Series Description: These records consist of the typed minutes of PAD/AD staff meetings. There are some duplicates. The purpose of these meetings, which were held weekly or bi-weekly, was to inform staff members on the progress of ZGS projects and to bring to their attention developments that may have an effect on what they and others were working on. All divisional staff members and technicians were required to attend. Early minutes consist of a list of those present, a section on administrative issues, a section on program matters,and a job status report. Later minutes feature reports from different working groups (EPO,EEG,etc). Some minutes include drawings and graphs. A partial index to the minutes is in box 340 b.

This series provides a complete operational chronology of the Particle Accelerator Division and its successor for a 14 year period and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 78

Series Title: Duplicate Particle Accelerator Division/ Accelerator Division Staff Meeting Notes

Volume: 1 c.f.

Box Number(s): 271, Accession 434-87-0009

Dates: 1956-1969

Arrangement: Numerical by consecutive note number

Series Description: Series contains J.J. Livingood's reference copies of notes described in item 77.

non-record

Disposition: Destroy immediately.

Authority: Non-record copies of permanent records

Item: 79

Series Title: Chronological Files-PAD/AD/HEF/ARFD

Volume: 10 c.f.

Box Number(s); 161-162, 418-425, Accession 434-87-0009

Dates: 1961-1979

Arrangement: Chronological

Series Description: Reading file copies of incoming and outgoing correspondence, sometimes with attachments (usually drawings or blueprints), documenting program and administrative activities related to the construction, maintenance,operation, and staffing of the ZGS. These files were created and maintained in the Particle Accelerator Division (PAD), which in late 1967 was re-organized into the Accelerator Division (AD) and the High Energy Facilities Division (HEF). In 1973, the Accelerator Division and High Energy Facilities Division were reorganized into the Accelerator Research Facilities Division (ARFD).

These convenience copies of correspondence are better organized than the subject files described in item 70 and should be retained for their accessibility as a ZGS operational history.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 80

Series Title: Administrative Files- PAD/AD/ZGS Service Office

Volume: 5 c.f.

Box Number(s): 391-395, Accession 434-87-0009

Dates: 1962-1975

Arrangement: Alphabetical by subject heading

Series Description: Routine administrative correspondence files primarily documenting financial and budget matters within the Particle Accelerator Division and its successor, the Accelerator Division. Files include incoming and outgoing memoranda concerning the annual budget for the division, acknowledgements of purchase orders from universities and other organizations the division rendered research services to, spreadsheets, vendor publications, vendor price lists, work project summaries, and cost reports. There are also folders with file items concerning such subjects as quality assurance, personnel, travel, signature authorizations, silver recoveries, and temporary appointments.

Most information is mundane and of little research value.

Disposition: Destroy immediately.

Authority: DOE 1324.2, Schedule 10, Items 3 and 4.

Item: 81

Series Title: ZGS Chronological File- EEE Group

Volume: 7 c.f.

Box Number(s): 163, 385-390, Accession 434-87-0009

Dates: 1959-1974

Arrangement: Chronological by date of creation or receipt

Series Description: These files contain copies of incoming and outgoing correspondence, internal and external memoranda and reports, vendor literature,product specifications, diagrams, bids, blueprints,occasional photographs, and other materials related to the construction, maintenance, and operation of the ZGS.

The EEE (Electrical and Electronics Engineering) Group was a working group within the Particle Accelerator Division (1956-1967),High Energy Facilities Division (1967-1973), and Accelerator Research Facilities Division (1973-1979)

These records should be retained for their evidential value in documenting one segment of the ANL/ZGS bureaucracy.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 82

Series Title: Chronological Files of the Computer Control Group

Volume; .5 c.f.

Box Number(s): 235, 434-87-0009

Dates: 1967-1972

Arrangement: Chronological by date of creation or receipt

Series Description: These files consist of copies of incoming and outgoing correspondence, memoranda, notices of personnel actions, purchase requisitions, product reports, vendor literature, software reports, specifications, descriptions of software programs, blueprints, and operating instructions relating to the implementation and use of ZGS computer systems.

This series should be retained for its information concerning ZGS computerization and as evidence of the Computer Control Group within the ANL/ZGS bureaucracy.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 83

Series Title: Subject Files of the Plant Engineering Division-B.J. Krause

Volume: 7 c.f.

Box Number(s): 262-264, 272,274-276, Accession 434-87-0009

Dates: 1960-1969

Arrangement: Alphabetical by subject

Series Description: These are the subject correspondence files of B.J. Krause, member of the Plant Engineering Division and project engineer for the High Energy Physics Division. These files consist of correspondence, technical reports, engineering drawings, equipment specifications, cost estimates, work project authorizations, construction progress reports and charts, notes, and computations concerning the design, construction,maintenance, or alteration of various ZGS components. The Plant Engineering Division either worked alone or assisted private contractors on various aspects of ZGS construction or operation.

Some items in the series are administrative in character and filed under generic subject headings such as "Operating Budget" or "Safety Inspection". The majority of the files, however, have the names of ZGS equipment or areas as titles and are the equivalent of case files for those devices, rooms, and buildings that constituted the ZGS and its surrounding complex. These records help document the initial and intermediate stages of ZGS construction and operation and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 84

Series Title: Subject Files of the Experiment Planning and Operations (EPO) Group

Volume: 8.5 c.f.

Box Number(s): 138,196,197,287,289,299,300,302, 314b (Hollinger box), Accession 434-87-0009

Dates: 1966-1979

Arrangement: Primarily Alphabetical

Series Description: These boxes consist of operating and engineering notes, intralaboratory correspondence, technical specifications, drawings, scholarly papers, contract bids, reviews of ZGS operations, operating schedules and programs of other laboratories (CERN, Brookhaven, etc.), newsletters, and other documentation of ZGS users, experiments, and programs as maintained by employees of the EPO Group of the High Energy Facilities Division (1967-1973) and the Accelerator Research Facilities Division (1973-1979). The EPO Group was responsible for maintaining and preparing the ZGS for proposed experiments.

The files in this series are both technical and administrative in character and contain correspondence and other items that are duplicated in several subject files. Nonetheless, this series should be retained as documentation of the existence of the EPO Group within the ANL/ZGS bureaucracy.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 85

Series Title: EPO Group Employee Files

Volume: 2 c.f.

Box Number(s): 396-397, Accession 434-87-0009

Dates: 1965-1979

Arrangement: The 1965-1974 files are unarranged. The 1975-1979 files are arranged alphabetically by employee surname.

Series Description: These files consists of correspondence, reports, papers written by students in the Undergraduate Honors Research Participation Program, scholarly articles, computer data programs, personnel directives, experimental area highlight summaries, program ratings, product specifications, service requests, and related items created or received by individual employees of the EPO Group.

Some records in this series document routine administrative matters that have short term interest value. Other file items are technical reference material or duplicates of records found in other series (item 84) and need not be retained.

Disposition: Destroy immediately.

Authority: New item

Item: 86

Series Title: ZGS Operations Committee Meeting Minutes

Volume: 1.5 c.f.

Box Number(s): 11c (Hollinger box), 185, Accession 434-87-0009

Dates: 1975-1978

Arrangement: Chronological, then numerical by meeting number

Series Description: This series consists of the typed minutes of weekly Operations Committee meetings. Once the ZGS Program Committee approved an experiment, it became the responsibility of the ZGS Operations Committee to oversee the installation of the necessary apparatus, assign experimental areas and equipment,and provide for the implementation of the priorities assigned by the program committee. To these ends, regular meetings of the ZGS Operations Committee were held.

Typical minutes consist of a roster of attendees, sections devoted to the status of the ZGS and its components, and a section concerning progress on ZGS experiments. The series provides information about ZGS operations and an important committee within the ZGS bureaucracy and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 87

Series Title: ZGS Users Group Files

Volume: 1.5 c.f. (Hollinger boxes)

Box Number(s): 313a,b, 314a, Accession 434-87-0009

Dates: 1959-1976

Arrangement: Unarranged

Series Description:

a. Name lists of Ph. Ds and graduate students, usually with university affiliation, associated with the ZGS Users Program (1970-1972). The ZGS Users Group consisted of university professors and students and ANL physicists and engineers who performed experiments with the ZGS. The lists need not be retained because the names of ZGS experimenters are documented in other series.

   Disposition: Destroy immediately.

   Authority: New item

b. Administrative correspondence related to the planning and organizing of ZGS User Group meetings (1968-1976). Included are proposed meeting programs, requests for hotel accommodations, and confirmation of topic speakers. Information is of a routine nature and does not merit retention.

   Disposition: Destroy immediately.

   Authority: New item

c. ANL publications documenting the proceedings of several ZGS User Group meetings (1959-1965). These publications should be retained as documentation of the existence, purpose, and objectives of the ZGS Users Group.

   Disposition: Permanent, transfer to NARA immediately.

   Authority: New item

Item: 88

Series Title: Titanium Vacuum Chamber Records

Volume: 1 c.f.

Box Number(s): 31, Accession 434-87-0009

Dates: 1966-1968

Arrangement: Unarranged

Series Description: These records document the procurement and construction of the ZGS's titanium vacuum chamber. The ZGS accelerated subatomic particles through electromagnetism created by a large eight section (octants) ring magnet. Within the ring magnet was a vacuum chamber through which a beam of accelerated particles traveled and was controlled. The original chamber which began operation in 1963, was stainless steel and glued together with epoxy. Through years of operation, this chamber became damaged by radiation and was replaced in 1972 by a "diffusion bonded" titanium vacuum chamber produced under contract by the North American-Rockwell Corporation. At the time of their assembly,the eight sections of the titanium chamber were the largest diffusion-bonded structures ever built.

This series includes copies of engineering drawings, bid prints, technical specifications, uncaptioned b/w photographs of the chamber, and monthly narrative reports on contract progress written by Willard B.Hansen of the High Energy Facilities Division. These reports are accompanied by summaries of project costs expended to date and work progress flow charts. Some correspondence between ANL and North American Rockwell is also present.

Series merits retention for its information about an important and historic component of the ZGS.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 89

Series Title: Quarterly Summaries of Ring Magnet Power Supply (RMPS) Operations

Volume: 1 c.f.

Box Number(s): 226, Accession 434-87-0009

Dates: 1966-1973

Arrangement: Chronological

Series Description: These summaries record "RMPS rectifier tube faults and other pulsing interruptions and trips." They also include general remarks covering RMPS operations during a particular calendar quarter and tabulated statistical information. The reports were created by PAD/AD employees for the information and use of ZGS group leaders and division heads.

The ring magnet power supply energized the total ZGS magnet, which in turn accelerated injected nuclear particles. The records in this series document the performance and reliability of a major ZGS component and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 90

Series Title: High Energy Physics Division Computer Programs

Volume: 4 c.f.

Box Number(s): 398-401, Accession 434-87-0009

Dates: 1964-1973

Arrangement: Alphabetical by program name

Series Description: Multiple copies of written descriptions of computer programs designed to manipulate and interpret scientific/ mathematical data resulting from operation of the ZGS or one of its major components. Most programs were written by ANL/HEP employees, but a few were created by employees of other research laboratories, such as Brookhaven. A typical program has a formal name (sometimes an acronym), a reference to the computer language it is written in, and a description of how the program works and what it is supposed to accomplish. These descriptions are usually couched in highly mathematical language.

Record copies of these programs should be retained because of their relationship to the ZGS. The programs were created either to help operate the device or to aid in the interpretation of scientific data resulting from ZGS experiments.

a. Record copies of programs

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

b. ~~Non-record~~ copies of programs

Disposition: Destroy immediately.

Non-record

Authority: Non-record, duplicate copies of permanent records

Item: 91

Series Title: ZGS Computer Runs

Volume: 4 c.f.

Box Number(s): 277,377-378,382, Accession 434-87-0009

Dates: 1966-1978

Arrangement: Unarranged

Series Description: This series consists of printouts from runs of computer programs involving the ZGS. The printouts sometimes include title of the program, date, job number, and equipment identification, but several are unidentifiable. Some printouts are the result of FORTRAN programming. Those printouts in box 382 are identified as "Q Train data for the polarized proton operation", but their origin and relationship to other series is unknown. Due to a lack of further information, the value of this material cannot be determined.

Disposition: Destroy when no longer needed for reference.

Authority: New item

Item: 92

Series Title: E-334 Punch Cards

Volume: 5 c.f.

Box Number(s): 439-443, Accession 434-87-0009

Dates: Undetermined

Arrangement: Unarranged

Series Description: These boxes contain machine-readable punch cards, banded together in sections (groupings unclear) and described as "rolls" 300-306 and "Field Map 400A". All cards correspond to "E-334", possibly "Experiment 334". The value of this material cannot be determined without the appropriate machinery for translation.

Disposition: Destroy when no longer needed for reference.

Authority: New item

Item: 93

Series Title: POPAE (Protons on Protons and Electrons) Files

Volume: 3 c.f.

Box Number(s): 30,32,37, Accession 434-87-0009

Dates: 1975-1976

Arrangement: Unarranged

Series Description: POPAE was an Argonne National Laboratory-Fermilab collaboration to construct a 1000 Ge V proton-proton colliding beam facility at Fermilab. This was to be the first nuclear collider at Fermilab and was expected to supersede the performance capabilities of other existing colliding beams and nuclear accelerators (including the ZGS), but the project never proceeded beyond the proposal stage.

These records, which consist of correspondence, unidentified color photographs, scientific articles, presentation notes, drawings, and position papers created by both ANL and Fermilab personnel have no relationship to the ZGS. They do, however,document a significant joint study between the two national laboratories and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 94

Series Title: Budget Files of the Particle Accelerator Division/Accelerator Division Director

Volume: 2 c.f.

Box Number(s): 285-286, Accession 434-87-0009

Dates: 1958-1974

Arrangement: Unarranged

Series Description: Boxes contain correspondence, spreadsheets, and related documents concerning various operating budgets of the Particle Accelerator Division and the successor Accelerator Division. Included are files documenting the division's construction, equipment,"long range", and operating budgets for fiscal years 1967 through 1971. Also present is a 1958 ANL/PAD publication, Current Cost Estimate and Status Report on the ZGS.

This series contains original records relating specifically to the budgets of ANL administrative units that oversaw construction and operation of the ZGS and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 95

Series Title: Argonne National Laboratory Budget Binders

Volume: 2 c.f.

Box Number(s): 283-284, Accession 434-87-0009

Dates: 1962-1973

Arrangement: Chronological by budget year

Series Description: Reference copies of published preliminary budgets for ANL's general research, physical research, and construction programs as maintained by the Particle Accelerator Division and successors. General research binders cover FYs 1963-1968, physical research binders relate to FYs 1969-1975, and construction budget binders concern FY 1966 and 1967. Binders refer to proposed budgets up to five fiscal years in the future. Individual budgets are broken down by program title and budget activity number. While there are specific references to budgets for ZGS and HEPD operations, they are in context with other ANL program budgets.

Non-record

This series was kept for reference purposes. Information is non-record and duplicated elsewhere within the ANL bureaucracy.

Disposition: Destroy immediately.

Authority: Non-record, technical reference material

Item: 96

Series title: Ledger Entries

Volume: 2 c.f.

Box Number(s): 6 ledger books , Accession 434-87-0009

Dates: 1966-1969

Arrangement: By project number

Series Description: Ledger entries and other accounting reports documenting expenditures on various ZGS projects, modifications, and equipment. Most projects are identifiable by assigned number only.

GRS
Item

Disposition: Destroy immediately.

Authority: GRS/8/7a

Item: 97

Series Title: ZGS Personnel Files

Volume: 3 c.f.

Box Number(s): 280-282, Accession 434-87-0009

Dates: 1967-1973

Arrangement: By subject, then alphabetical within subject

Series Description: Files cover a variety of personnel issues related to ZGS staffing. Included are investigation files concerning the accidental electrocution of a ZGS staff engineer in 1973, routine travel authorizations, supervisors' personnel files, organization charts, ANL affirmative action program reports, and employee test records measuring knowledge of emergency procedures.

The fatality investigation files and organization charts provide a profile of ANL/ZGS personnel activities and significant events in the early 1970's and should be retained. The supervisors' personnel files, which contain evaluations, evaluation instructions, and narratives of employee accomplishment, should be destroyed, along with the employee test records. The travel authorizations and affirmative action program reports are also disposable.

a. Fatality investigation files and organization charts

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

b. Supervisors' personnel files, employee test records

Disposition: Destroy immediately.

Authority: GRS 1/18a

c. Travel authorizations

Disposition: Destroy immediately.

Authority: GRS 9/1b

d. Affirmative action program reports

Disposition: Destroy immediately.

Authority: GRS 1/25 h (3)

GRS items

Item: 98

Series title: Unofficial Personnel Files

Volume: 1 c.f.

Box Number(s); 23, Accession 434-87-0009

Dates: 1961-1978

Arrangement: Alphabetical by employee surname

Series Description: Series consists of several folders each concerning an ANL/ZGS employee. Origin of the folders is unknown. Each folder contains correspondence, forms, and other records relating to routine personnel actions, travel, health insurance, expense reimbursement, and security status. Most records are copies.

Disposition: Destroy immediately.

Authority: GRS 1/18b

GRS
Item

Item: 99

Series Title: Closed Purchase Orders

Volume: 26 c.f.

Box Number(s): 48, 50-51, 123-129, 139-140, 150-152, 379,426-429, 444-447, 475-476, Accession 434-87-0009

Dates: 1960-1977

Arrangement: Chronological by date of purchase order

Series Description: Purchase orders documenting the acquisition of material used in the construction and maintainence of the ZGS. Included are product specifications, receiving reports with occasional diagrams, blueprints,and vendor sales literature. Most orders deal with commonplace purchases such as washers, pipe, and conduit interspersed with a few esoteric items such as electromagnets.

Disposition: Destroy immediately.

GRS
Item

Authority: GRS 3/3(a)1 &2

Item: 100

Series Title: <u>Store Stock Requests</u>

Volume: 5 c.f.

Box Number(s): 454-458, Accession 434-87-0009

Dates: 1963-1973

Arrangement: Numerical by request number

Series Description: Requests for stock items to be purchased and maintained by ANL's materials handling department. These documents supported the materials handling department's purchase requisitions. Each request consists of a control number, description of item(s) to be purchased, unit price, quantity required, requester's name, and approval signature (usually division director's). As a block, they profile the equipment need of ZGS operators and caretakers.

GRS
form

Disposition: Destroy immediately.

Authority: GRS 3/8a

Item: 101

Series Title: Service Requests

Volume: 3 c.f.

Box Number(s): 380, 381, 477, Accession 434-87-0009

Dates: 1969-1980

Arrangement: Numerical by request number

Series Description: Documents, such as ANL Form 36, used by various ZGS work groups and others to request routine maintenance, repair, or installation/construction actions upon laboratory equipment and facilities. Most requests concern routine tasks such as getting walls painted, locks changed, lamps replaced, or telephones relocated.

Disposition: Destroy immediately.

Authority: DOE 1324.2A, Schedule 2, Item 2b.

Item: 102

Series Title: Work Orders- E.G. Pewitt's Files

Volume: 5 c.f.

Box Number(s): 69,73-75,79 Accession 434-87-0009

Dates: 1965-1969

Arrangement: Numerical by order number

Series Description: Requests from various High Energy Physics personnel for construction, modification, or maintenance work to be performed on the 12 ft. bubble chamber and related equipment. Typical order has a description of what is to be done and a cost estimate. Technical drawings are occasionally present. Most work orders document routine procedures and procurements.

Disposition: Destroy immediately.

Authority: DOE 1324. 2A, Schedule 2, Item 2b

Item: 103

Series Title: Individual File Items Unrelated to Other Series-Archival

Volume: 1 c.f.

Box Number(s): 19, Accession 434-87-0009

Dates: 1958-1964

Arrangement: Unarranged

Series Description: Series consists of several files and publications containing significant information about ZGS construction or operations. Included are the following: a single reading file of correspondence (1957-1960) belonging to Martyn Foss, a senior ANL physicist, early associate director of the Particle Accelerator Division, and co-conceiver of the ZGS; a preliminary design study of the Meson and Proton Experimental Areas for the ZGS (1960) written by William M. Brobeck and Associates, consultants to ANL on the project; and several ANL publications (1960-1961) describing the ZGS and reporting on construction progress.

These records are particularly helpful in documenting the early stages of ZGS development and construction and should be retained.

Disposition: Permanent, transfer to NARA immediately.

Authority: New item

Item: 104

Series Title: Individual File Items Unrelated to Other Series-Temporary

Volume: 2 c.f.

Box Number(s): 4,13, Accession 434-87-0009

Dates: 1958-1976

Arrangement: Unarranged

Series Description: Series consists of a variety of binders, notebooks, and files containing duplicative, insignificant, or raw data about ZGS operations. Included are the following: an unidentified catalogue listing item prices on individual pieces of ZGS equipment, a CERN publication (1971) concerning "HYDRA", which was a pool of computer programs written for the analysis of bubble chamber events, a notebook (1971-1973) containing the raw notes of W.J. Leclercq, a system manager in the ZGS Operations Group, an unidentified binder (1972-1976) composed of scientific notes and articles from a variety of sources, and the ubiquitous copies of the ZGS Users News Bulletin (1966-1967).

Disposition: Destroy immediately.

Authority: New item