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Radiation Laboratory
Berkeley, California

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL INFORMATION DIVISION DURING THE PERIOD OF MARCH 16-31, 1958

April 2, 1958

Prepared for the U.S. Atomic Energy Commission

LIST OF CODES FOR REPORT NUMBERS

ACCO	-American Cyanimid Company
AEP	-Monsanto Chemical Company
AERE	-Gt. Brit. Atomic Energy Research Establishment,Harwell,Berks.England
ALCO	-American Locomotive Company
AMF	-American Machine & Foundry Co.
ANL	-Argonne National Laboratory
ANP	-Aircraft Nuclear Propulsion Project
APEX	-General Electric Company,ANP Project
ASTIA	-Armed Services Technical Information Agency,Dayton,Ohio
BAW	-Babcock & Wilcox
BDX	-Bendix Aviation Corp., Detroit
BMI	-Battelle Memorial Institute
BNL	-Brookhaven National Lab.
BRB	-Bridgeport Brass Company
BSC	-Bethlehem Steel Company
CENP	-Combustion Engineering, Inc.
CERN	-European Organization of Nuclear Research, Geneva
COO	-Chicago Operations Office
CU	-Columbia University
DCDE	-Atomic Power Development Associates
DLWK	-Duquense Light Co-Walter Kidde
DOW	-Dow Chemical Company
DP	-E.I.duPont deNemour & Co.
FWE	-Foreign Weapons Effects
GAT	-Goodyear Atomic Corporation
GEAP	-General Electric Company
GEL	-General Electric Co., General Engineering Laboratory
HEC	-Hooker Electrochemical Co.
HO	-Hanford Operations Office
HW	-Hanford Works, Richland
IDO	-Idaho Operations Office
ISC	-Iowa State College
K	-Carbide and Carbon Chemicals Co. (K-25 Plant)
KAPL	-Knolls Atomic Power Laboratory
KLX	-The Vitro Corporation of America
KLXS	-Vitro Corporation of America (Study Group)
KY	-Carbide and Carbon Chemicals Co. (C-31 Plant)
LA&LAMS	-Los Alamos Scientific Lab.
MCW	-Mallinckrodt Chemical Works
MIT	-Massachusetts Inst. of Tech.
MLM	-Mound Laboratory
NAA-SR	-North American Aviation, Inc.
NBL	-New Brunswick Laboratory
NBS	-National Bureau of Standards
NEA	-Foster Wheeler-Pioneer Service
NLCO	-National Lead Company of Ohio
NMI	-Nuclear Metals Inc.
NNSD	-Newport News Shipbuilding and Dry Dock Co.
NPG	-Commonwealth Edison Co. (Nuclear Power Group)
NRL	-Naval Research Laboratory,Washington D.C.
NYO	-New York Operations Office
ORINS	-Oak Ridge Institute of Nuclear Studies

ORNL	-Carbide & Carbon Chemicals Co. (ORNL)
ORO	-Oak Ridge Operations Office
PWAC	-Pratt & Whitney Aircraft Division of the United Aircraft Corp.
RFP	-Rocky Flats Plant
RME	-Grand Junction Operations Office
RMO	-Division of Raw Materials
SAN	-San Francisco Operations Office
SC	-Sandia Corporation
SEP	-Sylvania Electric Products, Inc.
SFO	-Santa Fe Operations Office
SRO	-Savannah River Operations Office
SO	-Schenectady Operations Office
TEI(M)	-U. S. Geological Survey Trace Elements Reports
TID	-Technical Information Service
TVA	-Tennessee Valley Authority
UCLA	-University of California Medical Research Laboratory
UCRL	-University of California Radiation Laboratory
UR	-University of Rochester
USNRDL	-U.S.Naval Radiological Lab., San Francisco,Calif.
UWFL	-University of Washington Applied Fisheries Laboratory
WAPD	-Westinghouse Electric Corp.,Bettis Plant
WASH	-AEC,Washington
WEC	-Westinghouse Electric Company Industrial Atomic Power Group
WIN	-National Lead Co., Inc. Winchester
WT	-Weapon Test Reports
Y	-Carbide and Carbon Chemicals Company (Y-12 Plant)

Many prefixes used for research and development reports cover a number of installations. NP ("Non-Project") numbers are assigned by the Technical Information Service at Oak Ridge to those reports which it received from sources not under contract to the Atomic Energy Commission. The UCRL Information Division gives "Misc" numbers to any others received here that do not bear an identifying number. Many reports are grouped together under numbers corresponding to an AEC division or operations office. Some of these are as follows:

CO,COO	-Chicago Operations Office
IDO	-Idaho Operations Office
NYO,NYOO	-New York Operations Office
ORO	-Oak Ridge Operations Office
RMO	-Raw Materials Division
WASH	-Atomic Energy Commission, Washington

In our semimonthly "List of Reports Received" the originating installation will be placed in the author column whenever the report code number does not indicate a specific laboratory, or is obsolete or not given in the list.

Two series of translations are currently received, one sponsored by the AEC (AEC-tr), the other by the National Science Foundation (NSF-tr).

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL INFORMATION DIVISION DURING THE PERIOD OF MARCH 16-31, 1958

Radiation Laboratory
University of California
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April 2, 1958

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	BIOSCIENCES		
AECU-3505	Detection of Air-Borne Beryllium Dust. Final Report Covering the Period from May. 1955 to February, 1957. Project No. A-057.	R. Gold, C. A. Stone Ill. Inst. of Tech., Chicago. Armour Research Foundation	4-25-57
*AF-SAM-57-33	Effect of Pre-radiation Immunization on Resistance to Aerosol-Induced Infection in X-irradiated Mice.	E. H. Perkins, S. Marcus Utah. Univ., Salt Lake City. Coll. of Medicine	8-13-56
*AF-SAM-57-74	Biphasic Hyperferremia Induced in Rats by X-irradiation.	G. S. Melville, Jr., F. P. Conte School of Aviation Medicine, Randolph AFB, Texas	11-27-56
*AF-SAM-57-83	Effects of Radiation on the Hill Reaction.	D. R. Anderson Texas. Univ., Austin. Radiobiological Lab.	1-18-57
*AF-SAM-57-154	Effect of Acute Total-Body Gamma Irradiation on Plasma Iron and Iron Uptake in the Burro and the Sheep.	G. S. Melville, Jr., B. F. Trum School of Aviation Medicine, Randolph AFB, Texas	6-27-57

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*CF-56-10-88	Personnel Radiation Exposures in the Thorex Pilot Plant. Paper Presented at Chemical Technology Division Information Meeting, October 11-12, 1956.	G. S. Sadowski Oak Ridge National Lab., Tenn.	10-19-56
*CWLR-2174	Description of Aerial Radiological Survey Methods.	J. P. Johnson, M. Morgenthau Chemical Warfare Labs., Army Chemical Center, Md.	7-12-57
*FMPC-150(Del.)	Health and Safety Aspects of New Materials Feed Plant for Thorium Production.	O. R. Magoteaux, E. W. Mautz, T. C. Runion National Lead Co. of Ohio, Cincinnati	3-5-53
*HW-53599	Fluctuations of Hanford Water Levels.	W. H. Bierschenk Hanford Atomic Products Operation, Richland, Wash.	11-14-57
ITR-1465	Fallout Studies and Assessment of Radiological Phenomena. Project 32.4 (of) Operation Plumbob. Preliminary Report.	L. E. Egeberg Naval Radiological Defense Lab., San Francisco	11-57
NYO-4699 (Suppl. 1)	Stray Radiation Measurements at Particle Accelerator Sites.	J. E. McLaughlin, Jr., Keran O'Brien, Leonard R. Solon, et al. New York Operations Office. Health and Safety Lab., AEC.	1-1-57
TID-7550	Fixation of Radioactivity in Stable, Solid Media. Report of Working Meeting at the Johns Hopkins University, June 19-21, 1957.	Johns Hopkins Univ., Baltimore	3-58

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UR-514	Histologic Studies of the Early Healing Process in Moderate Second Degree Burns.	F. W. Payne, J. R. Hinshaw Rochester, N. Y. Univ. Atomic Energy Project	2-12-58
UR-515	Suggested Urinary Tolerance Levels for Enriched Uranium	John B. Hursh Rochester, N. Y. Univ. Atomic Energy Project	2-7-58
UR-518	The Effects of Some Locally Applied Medications on the Healing of Second Degree Burns.	J. R. Hinshaw, H. E. Pearse Rochester, N. Y. Univ. Atomic Energy Project	2-25-58
USNRDL-TR-203	The Estimation of Lean Body Weight from Anthropometric and X-ray Measurments.	A. R. Behnke, W. E. Siri	12-1-57
USNRDL-TR-204	Quantification of Body Configuration in Geometrical Terms.	A. R. Behnke, O. F. Guttentag, C. Brodsky	12-1-57
USNRDL-TR-205	Military Aspects of Underweight and Overweight	A. R. Behnke	12-1-57
USNRDL-TR-206	The Relationship Between Weight and Some Anthropometric Measurements in Adult Males.	H. H. Hechter	12-1-57
UWFL-51	The Occurrence and Distribution of Radioactive Non-fission Products in Plants and Animals of the Pacific Proving Ground.	F. G. Lowman, R. F. Palumbo, D. J. South	6-12-57
WT-1172	Evaluation of the Acute Inhalation Hazard from Radioactive Fall-out Materials by Analysis of Results from Field Operations and Controlled Inhalation Studies in the Laboratory. Project 37.3 of Operation Teapot; Report to the Test Director.	G. V. Taplin, O. M. Meredith, Jr., H. Kado California. Univ., Los Angeles. Atomic Energy Project	6-57

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CHEMISTRY

ADI-4408	Tables II, III, and IV, Supplementing the Paper: Gas film Mass Transfer in a Packed Column; Effects of Physical Properties.	F. Yoshida, B. Dodge American Documentation Inst., Washington, D.C.	8-13-53
AEC-tr-2918	The Atomic Spectrum of Plutonium, by A. R. Stiganov and L. A. Korostyleva. Trans. from Optika i Spektroskopiia 1, 957-64 (1956).		
AECU-3599	Uranium Recovery, Uranium Geochemistry, Thermoluminescence and Related Studies. Final Report.	F. Daniels Wisconsin. Univ., Madison	11-57
AECU-3641	Nuclear Chemical Research Radiochemical Separations and Activation Analysis. Progress Report 6 for November, 1956 - October, 1957.	Michigan. Univ., Ann Arbor	11-1-57
*AERE-C/R-1847	Gas Chromatographic Separation of Hydrogen Isotopes.	E. Glueckauf, G. P. Kitt	2-9-56
AERE-C/R-2359	The Quantitative Estimation of Actinium 227 by Measurement of the 4.94 MeV Alpha Particle.	K. M. Glover, A. B. Beadle, F. J. G. Rogers	9-57
AERE-C/R-2382	The Lanthanum Fluoride Co-precipitation Method for the Determination of Plutonium. The Efficiency of Precipitation of the Lanthanum Carrier as Fluoride.	R. G. Monk	6-50
*AFCRC-TN-57-297	A Study of the Particle Size Distributions of Aerosols from Light Scattering Measurements. Scientific Report No. 1 (Report No. 6).	T. L. Gilbert Ill. Inst. of Tech., Chicago. Armour Res. Foundation	11-28-56
*AFOSR-TN-57-602	The Stoichiometry, Resistivity, and Thermoelectric Power of Cerium Dioxide Below 500°C.	A. W. Czanderna, J. M. Honig Purdue Univ., Lafayette, Ind.	9-57

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ANL-4000(Del.)	Chemistry Division, Section C-II Summary Report for July, August and September 1946.		6-2-47
ANL-4285(Del.)	Chemistry Division, Section C-II Summary Report for July through December, 1947.		10-1-48
ANL-4215(Del.)	Chemistry Division, Section C-1, Summary Report for July, August, and September 1948.		10-18-48
*ANL-4329(Del.)	Chemical Engineering Division Summary Report for April, May, and June, 1949.	L. Burris, Jr.	
*ANL-4427(Del.)	Chemistry Division, Section C-II Summary Report for October, November, and December 1949.	J. R. Gilbreath, O. C. Simpson	7-28-50
*ANL-4545(Del.)	Chemistry Division, Section C-1 Summary Report for July, August, and September 1950.	D. W. Osborne	12-11-50
*ANL-4613(Del.)	Chemistry Division, Section C-II Summary Report for January, February, and March 1951.	J. R. Gilbreath, O. C. Simpson	10-3-51
*ANL-5054(Del.)	Chemistry Divison, Section C-I Quarterly Report for October, November, and December 1952.	D. W. Osborne	2-1-53
*ANL-5254(Del.)	Chemical Engineering Division Summary Report [for] January, February, and March 1954.		5-1-54
*ANL-5529(Del.)	Chemical Engineering Division Summary Report [for] October, November, and December, 1955.		2-10-56
*BNL-211(Del.)	Progress Report on Fission Products Utilization. IV. Proposals for Concentrating High-Level Wastes. Part 2.	F. V. Caccavo, R. J. Isler, B. Manowitz	4-1-53
BNL-454	Predictions on the Chemical Behavior of Iodine in an LMFR Fuel.	O. E. Dwyer	4-15-57

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*CCC-1024-TR-263	Thermodynamics Functions for Selected Compounds.	C. R. Fuget, J. F. Masi Callery Chemical Co., Penna.	9-30-57
*CCC-1024-TR-266	Behavior of Decaborane in Organic Solvents.	E. H. Uhler, C. H. McDonnell. P. R. Wunz, Jr. et al. Same	10-15-57
*CCCO-422	Process Engineering Report on Thorium Semi-works Plant for the Feed Materials Production Center-Fernald, Ohio. Job No. 3542.	H. H. Bulkowski, J. W. Delaplaine. G. V. Holby, et al. Catalytic Construction Co., Philadelphia	1-31-52
*CF-45-2-9	Technical Division Section I Report for the week Ending February 4, 1945.	M. D. Peterson Clinton Labs., Oak Ridge, Tenn.	
*CF-50-2-27(Del.)	Tentative Plan for the Recovery of Fission Products and Neptunium from Redox Special Runs.	G. W. Parker Oak Ridge National Lab., Tenn.	2-8-50
CF-52-1-60(Del.)	Selection of Organic Coating for Cell Walls in the Idaho Chemical Processing Plant.	F. L. Culler Same	1-7-52
*CF-52-2-214(Del.)	Development and Operation of a Semi-continuous System for the Production of Ferrous Sulfamate.	W. B. Watkins Same	2-26-52
*CF-52-9-9(Del.)	Conference on Classified Nuclear and Reactor Physics, Oak Ridge National Laboratory, September 10, 11, 12, 1952.	Same	
*CF-54-2-114	Heat Capacity of Fuel Composition No. 31.	W. D. Powers, G. C. Blalock Same	2-17-54
*CF-54-4-39(Del.)	Recovery of Uranium from the Spent Stainless Steel Fuel Elements of the Package Reactor.	J. E. Savolainen Same	4-6-54

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*CF-54-4-195(Del.)	Discussion and Results for the Dielectric Heating Test.	A. L. Southern Oak Ridge National Lab., Tenn.	4-27-54
*CF-54-6-188(Del.)	Physical Property Charts for some Reactor Fuels, Coolants, and Miscellaneous Materials. (Fourth Edition).	Same	6-21-54
*CF-54-10-145(Del.)	Chemical Development Status Report for Period Ending October 15, 1954.	R. E. Blanco, D. E. Ferguson Same	10-25-54
*CF-55-3-190(Del.)	Unit Operations Status Report [for] March 1955.	W. K. Eister Same	
*CF-55-4-30(Del.)	Gamma Activity of U^{233} Due to U^{232} Daughters.	R. E. Leuze Same	4-4-55
*CF-55-8-22(Del.)	Measurement of the Viscosities of $KBeF_3$ and $NaBeF_3$ and some Observations on ($LiF-BeF_2$; 50-50 Mol %).	S. I. Cohen, T. N. Jones Same	8-1-55
*CF-55-11-28	Measurement of the Viscosity of Compositions 90 and 96 and ($KF-BeF_2$; 79-21 Mole %).	S. I. Cohen, T. N. Jones Same	11-8-55
*CF-55-11-102	Chemical Examination of Cold Trap from Intermediate Heat Exchanger Test Stand no. 1.	J. C. White Same	11-17-55
*CF-56-1-18	Estimation of Activity in High Level Purex Feeds.	E. D. Arnold Same	1- -56
*CF-56-2-104(Del.)	Chemical Development Status Report for Week Ending February 10, 1956.	R. E. Blanco D. E. Ferguson Same	2-20-56
*CF-56-3-33	Chemical Development Status Report for Week Ending February 24, 1956.	R. E. Blanco, D. E. Ferguson Same	3-2-56

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*CF-56-3-162	Chemical Development Status Report for Week Ending March 16, 1956.	R. E. Blanco, D. E. Ferguson Oak Ridge National Lab., Tenn.	3-26-57
*CF-56-4-41	Chemical Development Status Report for Week Ending March 30, 1956.	R. E. Blanco, D. E. Ferguson Same	4-6-56
*CF-56-4-100	Chemical Development Status Report for Week Ending April 6, 1956.	R. E. Blanco, D. E. Ferguson Same	4-12-56
*CF-56-4-101	HRP-CP: Analytical Requirements for the HRT Chemical Processing Plant.	W. L. Carter Same	4-9-56
*CF-56-4-164(Del.)	Chemical Development Status Report for Week Ending April 13, 1956.	R. E. Blanco, D. E. Ferguson Same	4-23-56
*CF-56-5-19(Del.)	Fused Salt Processing: Tentative Flowsheet.	R. G. Wymer Same	5-1-56
*CF-56-5-56	A Preliminary Study of Ultraviolet Spectra for Detection of Solvent Damage by Radiation.	J. R. Flanary, A. H. Kibbey, V. L. Tweedie Same	5-7-56
*CF-56-5-66	Heat Capacities of Several Sodium Fluoride, Zirconium Fluoride Compositions.	W. D. Powers, G. C. Blalock Same	5-14-56
*CF-56-5-67	Heat Capacity of Composition No. 100.	W. D. Powers, G. C. Blalock Same	5-14-56

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*CF-56-5-114	A Study of Dilute Solutions in the System, UO_2SO_4-$CuSO_4$-$NiSO_4$-H_2SO_4-H_2O.	F. E. Clark, J. S. Gill, R. Slusher, et al. Oak Ridge National Lab., Tenn.	5-17-56
*CF-56-5-131	HRP-CP: Design Calculations on Superheaters H-7 and H-8 for HRT Core Processing Plant.	W. L. Carter Same	
*CF-56-5-193(Del)	Heat Removal from Zirconium Hydrochlorination.	R. J. McNamee Same	5-22-56
*CF-56-6-73(Del.)	Chemical Development Status Report for Week Ending June 1, 1956.	R. E. Blanco, D. E. Ferguson Same	6-6-56
*CF-56-6-154	Chemical Development Status Report for Week Ending June 15, 1956.	R. E. Blanco, D. E. Ferguson Same	6-27-56
*CF-56-6-155	Recovery of U from Recycle Wastes.	I. R. Higgins Same	6-29-56
*CF-56-6-159	Recovery of Uranium from Recycle Wastes by Fluoride Volatility.	G. I. Cathers, D. E. Ferguson Same	6-29-56
*CF-56-6-174	Chemical Development Status Report for Week Ending June 22, 1956.	R. E. Blanco, D. E. Ferguson Same	6-22-56
*CF-56-7-49	HRP-BP: A Mathematical Analysis of the HRT Blanket Processing Plant.	W. L. Carter Same	7-16-56
*CF-56-7-118	Development of Radioanalytical Methods for HRT.	T. H. Handley, S. A. Reynolds Same	7-23-56

*Unpublished

*CF-56-8-20	HRP-BP: HRT UO_2SO_4 Blanket Solids Dissolving and Corrosion Tests in Phosphoric Acid Solutions.	W. L. Carter Oak Ridge National Lab., Tenn.	8-3-56
*CF-56-8-34	Status Report for Chemical Development, Sections A and B [for] Week Ending July 27, 1956.	R. E. Blanco, D. E. Ferguson Same	8-6-56
*CF-56-8-109	Status Report for Chemical Development, Sections A and B [for] Week Ending August 3, 1956.	R. E. Blanco, D. E. Ferguson Same	8-13-56
*CF-56-8-155	Heat Capacity of Composition No. 30 with Simulated Fission Products.	W. D. Powers G. C. Blalock Same	8-21-56
*CF-56-9-41(Del.)	Status Report for Chemical Development, Sections A and B: Week Ending August 31, 1956.	R. E. Blanco, D. E. Ferguson Same	9-10-56
*CF-56-9-84	Raw Materials Program--Process Test Section	H. M. McLeod, Jr. Same	9-19-56
*CF-56-9-95(Del.)	Status Report for Chemical Development Sections A and B: Week Ending September 7, 1956.	R. E. Blanco, D. E. Ferguson Same	9-21-56
*CF-56-9-113(Del.)	Status Report for Chemical Development--Sections A and B: Week Ending September 14, 1956.	R. E. Blanco, D. E. Ferguson Same	9-26-56
*CF-56-10-58(Del.)	Status Report for Chemical Development, Sections A and B: Week Ending September 28, 1956.	R. E. Blanco, D. E. Ferguson Same	10-8-56
*CF-56-10-126(Del.)	Status Report for Chemical Development Sections A and B [for] Week Ending October 12, 1956.	R. E. Blanco, D. E. Ferguson Same	10-19-56

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*CF-56-11-80	Status Report for Chemical Development Sections A and B: Week Ending November 9, 1956.	R. E. Blanco, D. E. Ferguson Oak Ridge National Lab., Tenn.	11-14-56
*CF-56-12-118	Permeation of Hydrogen Through Materials and Hydrogenous Systems for Shielding. Quarterly Status Report No. 1 (for) July 1, 1956 through September 30, 1956.	E. A. Sullivan, S. Johnson Metal Hydrides Inc., Chemical Res. Lab., Beverly, Mass.	12-10-56
*CF-57-1-172	Radioactive Waste Disposal and Miscellaneous Work. Annual Report for Calendar Year 1956.	H. E. Seagren, E. J. Witkowski Oak Ridge National Lab., Tenn.	9-11-57
*CF-57-6-61	Liquid-Liquid Extraction of Uranium and Plutonium from Hydrochloric Acid Solution with Tri(Iso-octyl) Amine; Separation of Uranium and Plutonium from Thorium and Fission Products.	F. L. Moore Same	6-18-57
*CF-57-10-2	Report of Slurry Blanket Test Run SM-3.	L. F. Parsly, Jr. Same	10-15-57
*CF-57-10-61	Evaluation of Gamma-Ray Attenuation Techniques for Measuring the Density and Homogeneity of Thorium Oxide Slurries Circulating at 300°C.	M. Richardson, A. S. Kitzes Same	10-10-57
*CF-57-10-88	Survey of Pressure and Differential Pressure Instrument Types for Possible Application to HRE-3 Slurry System.	H. D. Wills Same	10-25-57
CWLR-2204	Development of Glove, Protective, Impermeable, E18.	W. Matfess, M. Brill Chemical Warfare Labs., Army Chemical Center, Md.	12-57

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*DOW-57	The Recovery of Uranium by Ion Exchange from Acid Leaches of Carnotite Ores.	R. R. Grinstead, W. J. Backer	8-10-51
*DPST-54-309	Deuterization Rate of Ion Exchange Resins.	C. J. Banick Du Pont de Nemours (E.I.) & Co. Savannah River Lab., Augusta, Ga.	5-20-54
*FIAT-SEN-R-3	The Demineralization of Water by Means of Ion Exchange Resin. (In Italian)	L. Pizzi, A. Rosatelli Fiat. Sezione Energia Nucleare, Turin	5-57
*HW-13908(Del.)	The Solvent-Extraction Performance of Redox IC Columns (ANL June 1948 Flowsheet) Using Raschig Ring Packing, and Unirradiated Uranium. Redox Technical Study No. 14 Semi-Works Study Progress Report.	L. O. Hartzell, F. W. Woodfield, J. G. Bradley	8-22-49
HW-46685	A Kinetic Study of the Reduction of Uranium Oxides with Hydrogen.	W. R. DeHollander	11-8-56
*HW-50244	Variation of Graphite Diffusion Length With Temperature.	R. C. Lloyd, C. R. Richey	5-17-57
*HW-51346	The Effects of Irradiation on the Flexural Service Life of Ziegler Polyethylene.	J. H. Kleinpeter	7-11-57
*HW-51655	Oxidation of Plutonium(III) by Sodium Nitrite.	A. Brunstad	7-17-57
HW-54203	The Polymerization and Precipitation of Plutonium (IV) in Nitric Acid.	A. Brunstad	12-17-57
*IDO-14003(Del.)	Adsorption of Uranium on Stainless Steel.	J. C. Ciardelli	10-31-51
*IDO-14204(Del.)	Laboratory Studies of the Preparation and use of Dibasic Aluminum Nitrate for the "25" Process Feed Adjustment Step.	R. B. Lemon American Cyanamid Co. Atomic Energy Div., Idaho Falls, Idaho.	12-31-52

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*IDO-14376(Del.)	Integrated Pilot Plant Run.	D. E. Griffin, G. E. Lohse, L. Chajson, et al. Phillips Petroleum Co., Atomic Energy Div., Idaho Falls, Idaho	6-10-55
IDO-14425	Effect of Geometrical Shape on the Continuous Dissolution of Aluminum in Mercury-Catalyzed Nitric Acid.	A. F. Boeglin, J. A. Buckham Same	12-31-57
*IDO-16344	Radiation Damage to Certain Water Resistant Paints Used as Protective Coatings in Gamma Facilities.	W. C. Francis Same	1-18-56
*IDO-16356	A High Resolution Soller Slit Colliamator for use with the MTR Neutron Crystal Spectrometer.	E. G. Joki, J. E. Evans, J. R. Smith Same	6-18-56
IDO-16419	Distribution of U^{233} in an Irradiated Thorium Slug.	R. G. Nisle, E. Fast Same	10-21-57
IDO-16432	Uranium Fission Stoichiometry.	F. P. Vance Same	1-6-58
*IDO-28005	Polyphenyl-Coolant Burnout Studies. Monthly Progress Report No. 11 [for] September 16 through October 15, 1957.	Aerojet-General Corp., Azusa, Calif.	11-18-57
*IDO-28006	Polyphenyl-Coolant Burnout Studies. Monthly Progress Report No. 12 for October 16 through November 15, 1957.	K. Sato Same	12-13-57
*IGO-TM/W-040	The Titrimetric Determination of Plutonium in Solutions of Plutonium Nitrate.	F. Barker, R. H. Dickson Gt. Brit. Windscale Works. Sellafield, Cumb., England	11-8-57
*ISC-421(Del.)	Quarterly Summary Research Report in Chemistry for July, August, and September 1953.	Ames Lab., Ames, Iowa	12-1-53

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ISC-673	Steric Effects on the Formation Constant of Metal Chelates of Beta-Diketones.	G. A. Guter, G. S. Hammond Ames Lab., Ames Iowa	8-55
ISC-892	Radiochemical Studies of Mercury and its Ions in Dilute Solutions.	H. C. Moser, A. Voigt Same	3-57
ISC-902	Semi-annual Summary Research Report in Chemistry for January - June, 1957.	Same	9-11-57
ISC-909	Simultaneous Single Element Air Temperature and Velocity Measurements.	J. E. Benjamin, R. W. Fahien Same	6-57
*K-790(Del.)	Exchange of Uranium Between Beta Uranium Pentafluoride and Gaseous Uranium Hexafluoride.	W. Davis, Jr., G. P. Rutledge	7-13-51
*KAPL-213(Del.)	Recovery of Aluminum Nitrate from Redox Aqueous Waste Streams.	J. A. Ayres, G. E. McCullough, W. F. McKeehan, et al.	7-20-49
*KAPL-572(Del.)	Analytical Control Methods for Purex.	F. B. Rider, R. M. Nolin	4-27-51
*KAPL-795(Pt. I) (Del.)	An Investigation of the $KMnO_4$-MnO_2 Head-End Procedure for the Removal of Ruthenium and Niobium-Zirconium. I. A Pilot-Scale Study of the Procedure with Natural Uranium.	J. K. Davidson, J. H. Holmes, J. F. LaBonte	8-22-52
*KAPL-1139(Del.)	A Device to Remove Aluminum Jackets Mechanically from Bonded Uranium Slugs.	H. W. Alter, C. J. Beck, B. V. Coplan	6-1-54
*KAPL-M-DJS-2	Centrifugation Tests [on] KAPL Thorex Head-End.	D. J. Smith	3-30-55
*KAPL-M-ELS-8	The Decontamination of a Primary Coolant Water Loop After a Magnesia Incident.	E. L. Shirley	11-26-57

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MISC-1958-174 #8	Accession List No. 8 [Covering the Period] January 1 to January 31, 1958.	Battelle Memorial Inst. Radiation Effects Information Center, Columbus, Ohio	2-15-58
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NAA-SR-2168	Separations Chemistry. Quarterly Progress Report [for] April - June, 1957.	G. E. Brand, A. G. Buyers, W. J. Gardner, et al.	3-1-58
NLCO-713	Recording Thermogravimetric Balance.	F. M. Teetzel, M. A. Munroe, J. A. Williamson, et.al.	1-24-58
NP-6538	(U) Graphite Technology. Progress Report No. 4 for the Period October 1, 1957 to December 1, 1957.	Ill. Inst. of Tech., Chicago. Armour Res. Foundation	12-1-57
NYO-6633	Long-Lived Aluminum-26 (Thesis)	R. A. Rightmire, Carnegie Inst. of Tech., Pittsburgh	6-3-57
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SCTM-297-57(51)	Air-Gun Studies of Ferroelectric Materials.	E. A. Ripperger, A. F. Beck Sandia Corp., Albuquerque, N. Mex.	2-6-58
USNRDL-TR-197	Application of Gas Chromatography to Problems in Rapid Degradative Reactions of Solids.	S. B. Martin	10-7-57
USNRDL-TR-198	Radiation Received by an Uncollimated Receiver from a 4-PI Source.	M. G. Gibbons	11-15-57
USNRDL-TR-208	The Nature of Individual Radioactive Particles. VI. Fallout Particles from a Tower Shot. Operation Redwing.	C. E. Adams, J. D. O'Connor	12-2-57
WADC-TN-57-229	Formulation of an Environmental Testing Philosophy for ANP Weapon Systems. Bibliography.	P. M. Van Arsdell Cook Electric Co. Inland Testing Labs. Div., Chicago	6-57
WIN-78	Acid Leach Resin-In-Pulp and CCD Solvent Extraction Pilot Plant Testing of Lakeview Ore.	W. A. Millsap, R. L. Shimmin	
Y-1188	Portable Mercury Vapor Detector.	C. S. McMurray, J. W. Redmond	3-14-58

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*CF-54-8-225	Some Observations made on Cavitating Sodium Flow in a Venturi.	J. M. Trummel Oak Ridge National Lab., Tenn.	8-31-54
*CF-56-2-168	Pressure Measurement by Displacement of a Restrained Diaphragm.	D. M. Richardson Oak Ridge National Lab., Tenn.	2-15-56

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*CF-57-11-57	High Pressure Ejector Test.	B. A. Hannaford Oak Ridge National Lab., Tenn.	11-12-57
*CT-57-11-65	An Extension of the Esslinger Shell Relationships to Include Effects of Axial Load and Temperature.	B. L. Greenstreet, D. M. Miller Oak Ridge National Lab., Tenn.	11-19-57
*CT-57-11-111	Stress Analysis of Flat Circular Plates.	F. J. Stanek Same	11-25-57
*GAT-215	Committee Report of Transformer No. 309 Failure, X-533 Electrical Switchyard Portsmouth Area Plant.	Goodyear Atomic Corp., Portsmouth, Ohio	11-18-57
*HARD(F)/P-4	Heat Transfer Correlations for some Solid Liquid Systems.	J. Richards Gt. Brit. Atomic Energy Research Establishment, Harwell, Berks, Eng.	10-57
*KAPL-M-DDA-2	Temperature Transients in Evaporators.	D. D. Adams	[1956]
*KAPL-M-DRM-12	Thermo-Elastic Stability Analysis.	D. R. Miller	4-12-56
*KAPL-M-EDL-61	Free Convection Flow Studies.	R. G. Jacoby, G. C. Capelianis, J. J. Stewart	7-1-54
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*AERE-R/R-1891	Some Preliminary Tests on Bearing Materials to Operate Under Liquid Sodium. Revised Interim Report, June 1954.	D. F. Elliott, E. Holland, K. A. Tomblin	4-23-56
*ANL-4763(Del.)	Some Radiation Chemistry Aspects of the Corrosion of Metals on Irradiation.	W. L. Primak, L. H. Fuchs	4-21-52
*ANL-4847(Rev.)	The Manufacture of Enriched Uranium Fuel Slugs for the Experimental Breeder Reactor.	A. B. Shuck	4-20-53
*ANL-5110(Del.)	Development of a Process to Produce Zirconium Hanford Type Process Tubing by Roll Forming and Inert Arc Welding.	R. A. Noland, G. B. O'Keefe	5-1-53
*ANL-5153(Del.)	Metallurgy Division Quarterly Report [for] July, August, and September 1953.		9-30-53
ANL-5628	Roll Cladding Uranium-Zirconium and Uranium-Zirconium-Niobium Alloys with Zircaloy-2 for Plate-Type Fuel Elements.	C. H. Bean, R. E. Macherey, J. R. Lindgren	2-58
*ANL-RCV-SL-1180 (Pt. I and II)	Metal Oxidation and Ignition. Parts I and II.		2-12-57
*BM-RI-5365	The Titanium-Germanium System from 0 to 30 Percent Germanium.	V. C. Petersen, R. W. Huber Bur. of Mines	6-55
*BMI-863(Rev.)	Differential Thermal-Expansion Effects on Brazed Joints.	H. A. Saller, E. M. Baroody, H. W. Deem, et al.	9-4-53

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*CF-55-8-69(Del.)	Examination of Inconel-Fluoride Pump Loops 4935-3 and 4935-4.	G. M. Adamson, R. S. Crouse Oak Ridge Natl. Lab., Tenn.	8-12-55
*CF-55-10-31(Del.)	Examination of Fluoride Pump Loops 4935-5 and 4935-7.	R. S. Crouse, J. H. DeVan, E. A. Kovacevich Same	10-5-55
*CF-56-2-37	HRP Dynamic Corrosion Studies. Summary of Run D-61: 3.7m UO_2SO_4, 3.7m Li_2SO_4, 330-350°C.	J. C. Griess, R. S. Greeley, S. R. Buxton Same	2-9-56
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*CF-56-8-188	Corrosion of Platinum by UO_2SO_4 Solutions Under Irradiation.	G. H. Jenks Oak Ridge Natl. Lab., Tenn.	8-30-56
*CF-57-1-21	Operation of In-Pile Loop L-4-12.	F. J. Walter Same	1-7-57
*CF-57-11-140	Design and Development of a 1/2-Inch Titanium to Stainless Flange.	B. D. Draper, H. C. Roller Same	11-27-57
*CF-57-12-66	Stresses Caused by Internal Pressure and Uniform Temperature Changes in Clad Spherical Vessels.	R. D. Cheverton Same	12-17-57
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*FMPC-516(Del.)	Production of Enriched Slugs for North American Aviation, Inc. Completion Report.	H. Carroll, J. Mead, S. L. Reese, et al. Natl. Lead Co. of Ohio, Cin innati	1-28-55
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*HW-53961 A2	Plutonium Recycle Program Monthly Report [for] November 1957.	F. W. Albaugh, L. P. Bupp, P. F. Gast	12-10-57
HW-54605	Effects of Various Preferred Orientations on the Dimensional Stability of Uranium.	O. K. Shupe, W. V. Cummings, E. C. Watts	1-20-58
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*KAPL-M-CCR-1	Remote Braze Seal Study.	C. C. Ripley, E. C. Reynolds	8-3-50
*KAPL-M-CME-2	Comparison of Requirements in Various Government Procurement Specifications for Stainless Steel.	C. M. Erb	5-23-56
*KAPL-M-CTW-1	Evaluation of Titanium Powder for Metallurgical Use.	C. T. Waldo	4-25-56
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ORNL-2351	The Application of a Nominal 48 Wt % U-Al Alloy to Plate-Type Aluminum Research Reactor Fuel Elements.	W. C. Thurber, J. H. Erwin, R. J. Beaver Oak Ridge Natl. Lab., (Tenn.)	3-11-58
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*AERE-NP/R-1938	The Analysis of Neutron Spectrometer Resonance Data.	J. E. Lynn, E. R. Rae	7-56
AERE-R/R-2403	The Diffusion Length of Thermal Neutrons in Portland Concrete.	R. A. Dugdale, E. Healy	10-57
*ASAE-20	Some Reactor Physics Computing Methods in Use at American-Standard.	E. J. Leshan Amer. Radiator and Standard Sanitary Corp. Atomic Energy Div., Redwood City, Calif.	6-57
BNL-3426	A Possible Model for Strong Interactions.	S. Barshay	11-5-57
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*CF-49-8-81	Reactor Shield Analysis.	N. M. Smith, Jr., D. W. Whitcombe Oak Ridge Natl. Lab., Tenn.	8-8-49
*CF-55-8-104	Ionization Chamber Measurement of Backscatter and Absorption of Beta Particles.	T. E. Bortner, H. K. Richards Same	9-1-55
*CRT-725	Effective Cross-Sections and Neutron Flux Distributions in a Natural Uranium Rod. Application to Rod 683.	S. A. Kushneriuk Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	9-57
*IDO-16345	Alternate Gamma Irradiation Facilities at the MTR.	A. W. Brown, O. J. Elgert, W. C. Francis Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	1-20-56
*KAPL-M-EBF-6	Use of IBM-650 in Reduction of Foil Counting Data.	E. B. Fehr	1-10-55
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*A-4716	Critical Mass Studies, Part I.	C. K. Beck, D. Callihan, R. L. Murray Clinton Engineer Works, Oak Ridge, Tenn.	6-10-47
*AMF-GR-2-54(Del.)	Preliminary Study of Systems Utilizing Low Enrichment Fuels. Reactor Research Report.	S. Oestreicher, C. J. Brous	1-54
*ANL-4590(Del.)	Neutron Producer (CP-6) Program. Technical Progress Letter.	S. McLain	2-28-51
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*ANL-5492(Del.)	Fast Reactor Physics Calculations.	R. Avery	1-56
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*CF-55-3-40(Del.)	The Effect of Size of Thorex Plant on Processing Costs Associated with a Thermal Breeder Reactor Power Station.	E. D. Arnold Oak Ridge Natl. Lab., Tenn.	3-3-55
*CF-56-2-81	Removal of Iodine from Homogeneous Reactors.	D. E. Ferguson Same	2-16-56
*CF-56-3-42 and Add.	HRT Oxygen Addition System.	F. C. Zapp Same	3-2-56
*CF-56-3-159	Critical Experiments for a Proposed Tower Shielding Reactor.	D. W. Magnuson, A. D. Callihan Same	3-28-56
*CF-56-3-178(Del.)	Two-Group Perturbation Calculation of Change in Multiplication Constant with Mass for the ARE.	J. Bengston Same	3-12-56
*CF-56-4-29	Uranium Investment in a Circulating Fluoride Power-Producing Reactor.	W. K. Ergen Same	4-4-56

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*CF-56-4-99	Procedure for Testing Refrigeration System and Cold Traps--HRT Test VII A.	N. W. Curtis Same	4-14-56
*CF-56-4-105	HRT Leak Detection System.	J. E. Kuster Same	4-20-56
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*CF-56-4-204	Convectional Heat Transfer Considerations in the Design of Freeze Units for HRT Process Lines.	S. H. Jury, Same	4-10-56
*CF-56-5-6	Test of APPR Type Control Rod in the MTR.	E. E. Gross, F. H. Neill Same	5-1-56
*CF-56-6-168	Fuel Solution for the HRR.	R. A. McNees Same	6-28-56
*CF-56-7-117	Volume Calibration of Blanket High-Pressure System. Results of HRT Test III B 5a.	N. W. Curtis, P. N. Haubenreich Same	6-30-56
*CF-57-7-105	A Calculation of the Gamma-Ray Spectrum of the Bulk Shielding Reactor.	G. deSaussure Same	7-31-57
*CF-57-10-110	Life of HRE-3 Core Tanks.	J. A. Larrimore Same	10-21-57
*CF-57-11-15	An Estimate of the Nonleakage Probability for Bare Aqueous Homogeneous U^{235} Reactors.	D. K. Trubey, H. S. Moran, A. M. Weinberg Same	11-8-57

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*CF-57-11-32	Change in Critical Concentration in a Cylindrical Reactor due to a Longitudinal Hole.	M. Tobias Oak Ridge Natl. Lab., Tenn.	11-8-57
*CF-57-11-83	Possibility of Peroxide Precipitation When the Reactor Cell is Flooded.	P. N. Haubenreich Same	11-15-57
*CF-57-11-148	Inlet Nozzles for Slurry for HRT Blanket.	J. M. Trumrel Same	11-15-57
*CRL-49	The NRU Reactor.	G. C. Laurence Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	11-57
*DP-147(Del.)	The Nuclear Test Gauge.	T. F. Parkinson, M. H. Goosey, W. M. Heston, et al.	6-56
DP-262	Heat Flux at Burnout in Stagnant Water.	S. Mirshak	12-57
*FIAT-SEN-R-1	Preliminary Calculations on Power Extractable by Forced Convection from a "Swimming Pool" Reactor. (In Italian)	A. Potesta Fiat. Sezione Energia Nucleare, Turin	4-57
*FIAT-SEN-R-2	Evaluation of the Maximum Power Extractable by Natural Convection from Swimming Pool Reactors. (In Italian)	A. Tettamanzi Same	4-57
*FIAT-SEN-R-4	Dimensioning of the Plant for the Demineralization of Water of the Primary Circuit of a "Swimming Pool" Reactor of 5 MW. (In Italian)	L. Pizzi, A. Rosatelli Same	5-57
*FPP-9	Proposal for Steam Boiler for CO_2 Pressurized Production Pile.	K. B. Clarke Gt. Brit. Atomic Energy Research Establishment, Harwell, Berks, England	2-25-48

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*FPP-12	The Performance of a CO_2-Cooled Pile in a Pressure Envelope Heat Tranfer and Pressure Drop Calculations.	J. Hodge, J. Smith Gt. Brit. Atomic Energy Res. Establishment, Harwell, Berks, England	5-6-48
*HARD(A)/P-21	An Interim Report on Solution Control Circuits for the H.A.R.	C. L. Brown Same	9-25-56
*HARD(A)/P-33	The Use of the Homogeneous Aqueous System as a Burner Reactor.	C. L. Brown, P. N. Cooper, J. R. Harrison et al. Same	9-57
*HW-33531(Del.)	The Nuclear Power Industry--A Study of Influencing Factors.	W. K. MacCready, W. J. Dowis, K. L. Robertson et al.	1-31-55
*HW-34388(Del.)	A Preliminary Study of the Economical Incentives of In-Pile Boiling as Applied to Dual Market Reactor Plants.	W. C. A. Woods	1-10-55
*HW-36672(Del.)	Moderator Evaluation for the K Piles--AGHT (CHF) and 185W Graphite.	G. R. Sparks, W. C. Riley	5-11-55
HW-44703(Del.)	Program Study Report Plutonium Fuel Cycle.	F. W. Albaugh, R. M. Fryar	7-30-56
*IDO-16346	Capacity of the MTR Cooling System.	J. H. Rainwater, V. A. Walker Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	2-13-56
*IDO-16347	Effect on Uneven Fuel Burnout in MTR on Maximum Heat Flux.	J. H. Rainwater, V. A. Walker Same	2-24-56

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IDO-16348	A Critical Facility for the ETR--A Proposal.	D. R. deBoisblanc Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	3-5-56
IDO-16350	Determination of Permissible MTR Power Following a Junior Scram.	J. H. Rainwater, V. A. Walker Same	3-29-56
*IDO-16351	Proposed Fuel Loadings for 600 MWD Operation of the MTR.	J. H. Rainwater, V. A. Walker Same	4-17-56
*IDO-16353	Advanced Testing Reactors.	J. R. Huffman, W. P. Conner, G. H. Hanson Same	5-28-56
*IDO-16357	Nuclear Calculations for the MTR with Geneva Fuel.	H. L. McMurry, R. Haldin, L. L. Marsden Same	7-25-56
*IDO-16360	Safety of MTR Fuel Shipping Boxes.	H. L. McMurry, B. L. Hanson Same	10-15-56
*IDO-16363	Variation of Fuel Requirements for Fixed MTR Operating Cycles.	G. A. Cazier Same	9-7-56
*IDO-16365	Effect of Cycle Time of MTR with 20% Enriched Fuel Due to Changes in Metal/H_2O Volume Ratio.	H. L. McMurry Same	10-15-56
*IDO-16367	Equations for MTR Burnup Apportionment.	F. P. Vance Same	12-3-56

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IDO-16404	Kinetic Studies on the Spert I Reactor. II. On the Initial Shutdown of the Spert I Reactor for Periods Greater than 50 Milliseconds.	L. I. Deverall, G. W. Griffing Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	12-26-57
*IGR-TM/S-080	Calculations on the Bowing Characterisitcs of Various Pippa Fuel Elements.	R. O. Hughes Gt. Brit. Springfields Works, Springfields, Lancs, England	4-6-56
*IGR-TN/C-656	An Assessment of the Gaseous Compatibility Problems of the Sodium Graphite Reactor.	H. C. Cowen, M. T. Jaquiss Gt. Brit. Culcheth Labs., Culcheth, Lancs, England	8-57
*K-126	Critical Mass Studies. Part II.	C. K. Beck, A. D. Callihan, R. L. Murray	1-23-48
*KAPL-238(Del. 2)	Technical Feasibility Report for the KAPL West Milton Area Reactor.		2-14-50
*KAPL-M-CM-2	Summary of Experimental Work Relating to Schenectady Power Pile.	C. Mannal	12-15-47
*KAPL-M-CRDM-4	Gas Filled Control Rod Drive Mechanism Study. KAPL Memorandum CRDM-4.	J. R. Thompson	11-13-57
*KAPL-M-EDL-103	Development of a Flow Metering Rod for Mark B Flow Model.	D. J. Oakley, J. H. Whitman	9-26-55
*KAPL-M-EJ-5	S4G Unit Cell Shock Analysis.	E. B. Johansson	10-14-57
*KAPL-M-EL-1	S3G/S4G Cold Water Accident Analysis.	E. Lantz	4-27-56

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*KAPL-M-ELS-2	The Analysis of KAPL-30 By-Pass Purification Resin Column.	E. L. Shirley	2-8-56
*KAPL-M-ELS-3	Preliminary Study of the Instrumentation for the Emergency Cooling Test Loop.	F. D. Leipziger, E. L. Shirley	2-29-56
NAA-SR-2224	Reactor Safety. Quarterly Progress Report [for] April - June, 1957.	N. C. Miller	3-15-58
NYO-8503	Digital Rod Position Indicator System.	Ford Instrument Co., New York	12-2-57
PR-RRD-12	Reactor Research and Development Division. Progress Report [for] October 1, 1957 to December 31, 1957.	Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	
YAEC-54	Monthly Progress Report for the Period January 1 to 31, 1958.	I. H. Coen, R. W. Garbe Westinghouse Electric Corp. Atomic Power Dept., Pittsburgh	2-20-58

MISCELLANEOUS

ANL-5844	Additions to the Library. Report for the Period February 16-28, 1958. Technical Reports and Books.	P. A. Schulze Argonne National Lab., (Lemont, Ill.)	
MISC-1958-41, S.3474	85th Congress, 2D Session, Senate. A Bill to Amend the Atomic Energy Act of 1954, as Amended, [with Regard to Cooperation with other Nations,] Introduced by Mr. Pastore, Read Twice, and Referred to the Joint Committee on Atomic Energy, March 13, 1958.	U. S. Congress	
MISC-1958-63(Pt.1)	Hearing Before the Preparedness Investigating Subcommittee of the Committee on Armed Services, United States Senate, Eighty-Fifth Congress, First and Second Sessions, November 25, 26, 27, December 13, 14, 16 and 17, 1957, January 10, 13, 15, 16, 17, 20, 21, and 23, 1958. Part I.	U. S. Congress	1958

MISC-1958-64	85th Congress, 1st Session, Joint Committee on Atomic Energy. Atomic Energy Legislation Through 85th Congress, 1st Session.	U. S. Congress	12-57
MISC-1958-65	Doorway to Legal News. Vol. 3, No. 6 - February 28, 1958 -	Atomic Energy Commission (Washington, D. C.)	
Monograph 2919	Buried Distribution for Telephone Circuits. Reprinted from Wire and Wire Products 32. 1482-4, 1526 (1957).	C. C. Lawson Bell Telephone Labs., Inc., New York	2-58
NACA-ABSTRACTS-125	Research Abstracts and Reclassification Notice No. 125.	Natl. Advisory Committee for Aeronautics	3-18-58
TID-4023 (1st Rev.)	Consolidated Availability Listing of Secret Reports Announced to the Civilian Application Program.		1-1-58
TID-4022 (1st Rev.)	Consolidated Availability Listing of Confidential Reports Announced to the Civilian Application Program.		1-1-58
TID-4035 (Suppl. 1)	AEC Reports Declassified. List Number 2, July - December, 1957.		2-14-58
TID-4500 (13th ed., Rev.)	Standard Distribution Lists for Unclassified Scientific and Technical Reports.		2-15-58
TID-8016	Construction of Facilities for Radioactive Work.	C. N. Perleberg	2-58

UCRL REPORTS ISSUED DURING MARCH 16-31, 1958

UCRL-3905	Properties of Negative K Mesons	Francis M. Webb, Edwin L. Iloff, Frank H. Featherston, Warren W. Chupp, Gerson Goldhaber, Sulamith Goldhaber		9-1-57
UCRL-3985	Studies on Metabolic Dynamics with Carbon Fourteen and Phosphorous Thirty-two as Tracer Atoms	J.A.Bassham K.K.Lonberg-Holm	OUO	3-58
UCRL-3992	Mapping the Distribution of Gamma-Ray-Emitting Isotopes with the Scintillation Camera	Hal O. Anger	OUO	3-58
UCRL-8079 Abstract(Rev)	Electron Triplet Production in Hydrogen	J.D.Anderson D.C.Gates, T.L.Jenkins, R.W.Kenney, C.A.McDonald, Jr., W.P.Swanson	OUO	3-58
UCRL-8113	The Path of Carbon in Photosynthesis. XXII. The Identification of Carboxy-Ketopentitol Diphosphates as Products of Photosynthesis	V.Moses M. Calvin		1-9-58
UCRL-8182	Spins of Some Radioactive Iodine Isotopes	H.L.Garvin T.M.Green, Edgar Lipworth		2-17-58
UCRL-8188	Development of an Occluded-Gas Ion Source	Kenneth W. Ehlers, James D. Gow, Lawrence Ruby, John M. Wilcox		2-20-58
UCRL-8200	Interaction of High Energy Protons and Alpha Particles with Iodine-127	Inge-Maria Ladenbauer		3-58
UCRL-8205 Abstract	Fast-Neutron Surveys Using Indium-Foil Activation	Lloyd D. Stephens		3-12-58

UCRL-8206 Abstract	High-Energy Neutron Dosimeter	Joseph B. McCaslin	3-6-58
UCRL-8207 Abstract	The Stray-Radiation Field of the Bevatron	Alan R. Smith	3-11-58
UCRL-8208 Abstract	The Flux and Spectrum of Cosmic-Ray-Produced Neutrons as a Function of Altitude	H. Wade Patterson	3-7-58
UCRL-8209 Abstract	Noble Gas Scintillation for Neutron Spectroscopy	Theodore M. Jenkins	3-11-58
UCRL-8212	List of Unclassified Reports Received and Issued by the UCRL Information Division During the Period of March 1-15, 1958		3-17-58
UCRL-8213 Lecture 1	Lectures on "Continuous Groups and Reflections in Quantum Mechanics" by W. Pauli	R. J. Riddell, Jr.	3-17-58
UCRL-8214 Abstract	The Radiation Chemistry of the Symmetrical Dichloroethylenes and Related Compounds	Jean H. Futrell Amos S. Newton	3-58
UCRL-Translation 359	Certain Properties of Spontaneous Fission of Heavy Nuclei, by V. N. Mekhedov. Trans. from Atomnaia Energiia 2, supol 1, Physics of Fission of Atomic Nuclei, 181-8 (1957).		
UCRL-Translation 363	An Electrical Mass Filter, by W. Paul and M. Raether. Trans. from Zeitschrift für Physik 140, 262-73 (1955).		
UCRL-Translation 368	An Analysis of the Thermodynamic Properties of Argon, Nitrogen and Argon-Nitrogen Mixture by the Methods of Statistical Thermodynamics, by I. A. Rogovaya (i.e., Rogovaia) and I. P. Ishkin. Trans. from Zhurnal Fizicheskoi Khimii 31, 573-81 (1957).		
UCRL-Translation 372	The Theory of Adsorption and Related Phenomena, by J. Frenkel (i.e., Ia. I. Frenkel). Trans. from Zeitschrift für Physik 26, 117-38 (1924).		
UCRL-Translation 379	Magnetic Properties of Some Paramagnetic Salts, by S. S. Shalyt. Trans. from Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki 8, 518-30 (1938).		

INFORMAL REPORTS ISSUED

Information Division

			Date No. Assigned
UCID-7 (EN 7913-01 M17)	72" Hydrogen Bubble Chamber - General Safety Sphere Design Proposal	H.P.Hernandez	3-5-58
UCID-8 (EN 3340-01M125)	Explosion Pressures in Industrial Piping Systems	H.P.Hernandez	3-5-58
UCID-9 (EN 3320-01 M112)	The Application of Commercial Electrical Equipment to Locations where Hydrogen Gas May Exist in Quantities Sufficient to Produce Explosive or Ignitable Mixtures	H.P.Hernandez	3-10-58
UCID-10 (EN 7913-30M42)	72" Hydrogen Bubble Chamber - Heat Exchange Surfaces	L.R.Lucas	3-6-58
UCID-11 (EN 4601-81 M2)	General Chemistry Research. High Current Cyclotron Preliminary Studies Magnet Optimization Part A, Optimum Field	R. Burleigh	3-6-58
UCID-12 (EN 4601-81M3)	General Chemistry Research. High Current Cyclotron Preliminary Studies. Magnet Optimization, Part B Optimum Iron in Return Path	R. Burleigh	3-6-58
UCID-13 (EN 4601-81M4)	General Chemistry Research. High Current Cyclotron Preliminary Studies. Magnet Optimization, Part C Optimum Current Density	R. Burleigh	3-6-58
UCID-14 (EN 7307-01M25)	Bevatron-Exp. Facilities. Preliminary Study toward Decreasing 8" Quadrupole Magnet Power by Increasing Copper	R.A.Kilpatrick	3-6-58
UCID-15 (EN 4310-15MT1)	Pantograph Cloud Chamber Magnet, AEC 30500 Magnet Test 21501	P.G.Watson	3-11-58
UCID-16 (EN 4310-15MT2)	Cloud Chamber Magnet, AEC 30500-Magnetic Measurements with GAP Geometries for 35 Atmosphere Diffusion Chamber and Propane Bubble Chamber	P.G.Watson	3-11-58
UCID-17 (EN 7913-30M43)	72" Hydrogen Bubble Chamber Fabrication. Chamber Assembly Heat Exchanges Pressure Drop	R. Burns	3-11-58

UCID-18 (CRU-2)	Results of Preliminary Tests on Two RCA LE 59 Photomultiplier Tubes	Q. Kerns F. Kirsten	3-13-58
UCID-19 (CRU-3)	Results of Transit-Time Measurements on Three C7187A Photomultiplier Tubes	F. Kirsten	3-13-58
UCID-20 (EN 7900-61M1)	Maximum Power Ratings and Water Interlock Requirements for 4" Quadrupole Magnets	W. W. Salsig, Jr.	3-12-58
UCID-21 (EN 4312-07 M13)	Bubble Density Measurements with the Van Rossum Densitometer	W. Isbell	3-17-58
UCID-22 (EN4312-07 M16)	Specifications for a Film Reader for Bubble Chamber Photographs: III	Art Rosenfeld	3-17-58
UCID-23 (EN 4312-03 M15)	Large Bubble Chamber Development - Cryogenics 4" Deuterium Run	J. Donald Gow	3-17-58
UCID-24 (EN 4311-17 M31)	Physics Projects - 10" Bubble Chamber Development Bubble Chamber Expansion Systems	L. Alvarez H. P. Hernandez	3-17-58
UCID-25 (EN 4311-17 M7)	10" Bubble Chamber - Safety vent System Modification	H. P. Hernandez	3-17-58
UCID-26 (EN 4312-05 EE-385)	72" Bubble Chamber Building - Utilities Route Alternates	A. J. Shand	3-17-58
UCID-27 (EN 4311-14 M4)	20 x 50 Bubble Chamber Magnet Arrangement	H. P. Hernandez	3-17-58
UCID-28 (EN 4311-14 M7)	20 x 50 Bubble Chamber Magnet Studies	H. P. Hernandez	3-17-58
UCID-29 (EN 4311-14 M8)	Bubble Chamber Development - Bubble chamber camera Optical Design Factors	Myron L. Good	3-17-58
UCID-30 (EN 4311-14 M9)	20 x 50 Bubble Chamber - Optics Study	D. U. Norgren	3-17-58
UCID-31 (EN 4311-14 M12)	Bubble Chamber Development - Refrigeration and Cool Down of Large Bubble Chamber	D. B. Chelton B. W. Birmingham	3-17-58

UCID-32 (EN 4311-14 M13)	15 x 20 x 72 Bubble Chamber - Work of Compression in Superheating System	B. Birmingham D. Chelton	3-17-58
UCID-33 (EN 4311-14 M14)	15 x 20 x 72 Bubble Chamber--Some Aspects of a Hydrogen Shield	D. Chelton B. Birmingham	3-17-58
UCID-34 (EN 4311-14 M15)	Liquid Hydrogen Expansion	B. Birmingham D. Chelton	3-17-58
UCID-35 (EN 4311-14 M16.A)	Effects of Multiple Coulomb Scattering on Measurements of Particle Curvature in Liquid Hydrogen	Hugh Bradner	3-17-58
UCID-36 (EN 4311-14 M17)	10" Bubble Chamber--Hydrogen Thermodynamic Liquid Vapor System	H. Paul Hernandez	3-17-58
UCID-37 (EN 4311-14 M18)	10" Bubble Chamber Development Program--The Compressibility of Liquid Hydrogen at 25°, 26°, and 27° K	M. L. Stevenson	3-17-58
UCID-38 (EN 4311-14 M19)	Bubble Chamber Development 10" Bubble Chamber: Heat of Compression	M. L. Good	3-17-58
UCID-39 (EN 4311-14 M20)	Optimum Operating Conditions for Bubble Chambers	D. Chelton B. Birmingham	3-17-58
UCID-40 (EN 4311-14 M21)	Preliminary Specifications for a Film Reader for Bubble Chamber Photographs	H. Bradner	3-17-58
UCID-41 (EN 4311-14 M22)	10" Bubble Chamber - Energy of Compression and Regeneration	B. Birmingham D. Chelton	3-17-58
UCID-42 (EN 4311-14 M24)	72 Bubble Chamber - Liquid Hydrogen Pressure - Temperature Design Limits		3-17-58
UCID-43 (EN 4311-14 M29)	A High Efficiency, Self Contained Liquid Expansion System for the 72" Bubble Chamber	L. W. Alvarez	3-17-58
UCID-44 (EN 4311-14 M30)	Bubble Chamber - Repressurization Phenomena and Expansion Systems	D. B. Chelton B. Birmingham	3-17-58
UCID-45 (EN 4311-14 M32)	Illumination Systems for "single window" Bubble Chambers	L. W. Alvarez	3-17-58

UCID-46 (EN 4311-14 M33)	4" Bubble Chamber Pressure Rise Due to Hydrogen-Oxygen Reaction	D.B.Chelton D.B.Mann	3-17-58
UCID-47 (EN 4311-14 M35)	Preliminary Report: 4" Bubble Chamber Bevatron Test Run-- Nov. 14 thru Nov. 19	F.S.Crawford, Jr.	3-17-58
UCID-48 (EN 4311-17 M2)	Liquid Hydrogen Supply for 10" Bubble Chamber	R.C.Mathewson	3-17-58
UCID-49 (EN 4311-17 M6C)	Operating Instructions 10" Bubble Chamber	D.Chelton	3-17-58
UCID-50 (EN 4311-17 M10)	10" Bubble Chamber Safety	J.W.Mark	3-17-58
UCID-51 (EN 4311-17 M12)	10" Bubble Chamber - Fast Thermocouples for Gas Temperature Measurement	John Mark	3-17-58
UCID-52 (EN 4311-17 M15)	Bubble Chamber Purification System	D.B.Chelton D.B.Mann	3-17-58
UCID-53 (EN 4311-17 M16)	10" Bubble Chamber Development Stereo Recordak Camera MK. I - Performance Analysis and Recommendations - Indicators	D.Norgren	3-17-58
UCID-54 (EN 4311-17 M18)	Bubble Rise in Liquid Hydrogen	R.Donaldson R. Watt	3-17-58
UCID-55 (EN 4311-17 M20)	10" Bubble Chamber - Resonance	Paul Hernandez	3-17-58
UCID-56 (EN 4311-17 M21)	10" Bubble Chamber - Window Failure Test	John Randall	3-17-58
UCID-57 (EN 4311-17 M22)	10" Bubble Chamber Development and Operation - Summary of fourth run	Paul Hernandez	3-17-58
UCID-58 (EN 4312-03 M3)	Hydrogen PV Diagram, Calculated from Van Der Waals' Equation of State	Dr.R.E.Donaldson	3-17-58
UCID-59 (EN 4311-17 M26)	10" Bubble Chamber - Test data summary 7-17 to 7-22-56 (8-7-56 added)	R.A. Byrns	3-17-58

Theory Group

			EN Date
4310-03 LA16	Electron Contamination of the 1.12 Bev/c π^- Beam	F. Crawford	3-15-58
4310-03 LA17	Maximum Liklihood Solutions for K and Λ Lifetimes and Neutral Branching Ratios	F. Crawford	3-26-58

Mechanical Engineering

4310-11 M6	Gen. Physics Research - Lofgren's Group - 12" Wide Angle Liquid H_2 Target - Design of Beam Port Vacuum Windows	W.W.Salsig, Jr.	8-23-57
7301-04 M14	Bevatron - Bldg. Utilities - Design Studies for Bldg 51A Heavy Duty Trench Covers	Callahan Gunn Salsig	3-14-58
7301-04 M15	Bevatron - Bldg. Utilities - Permanent Bracing of Trenches in Bldg. 51 Exp. Area	O.W.Callahan	10-8-57
7302-04 M26	Bevatron - Magnet Power Supply - Preliminary Study of Devices to Rotate Main Gen Shaft During Alignment	Shuck Yee	7-11-56
7303-02 M22	Bev. Vacuum System Envelope West Tangent Tank I.R. Reintrant Cover Plate Handling Fixture	A.O.DuBois	5-27-55
7302-02 M93	Bevatron Magnet Core Basic Dimensions Reference Dimensions of Magnet, Coil and Vacuum Tank Components	Phil Bean	6-10-53
7304-08 M8	Bevatron - Injector Ion Gun - Stress in Accelerating Tube Support Flange (Ass'y 4Q4713)	K. Stone	12-7-54
7305-03 M3	Bevatron - Accelerating System - Osc. and Amp. Sys. Estimated Heat Loads on ICW Water System	R. Kilpatrick	5-11-54
7305-03 M4	Bevatron - Accel. System - Osc. Amplifier - Design of Evacuated Oil Reservoir Tank for Reactor Oil System	A. Glicksman	8-20-57
7307-01 M29	Bevatron - Experimental Facilities - Beam Clipper Reference Positions	DeYoung	9-9-56

7306-01 M94	Bevatron-Misc General - Design of Drop Leaf High Level Platform for Outside North Straight Section	O.W.Callahan	1-11-57
7306-01 M95	Bevatron-Misc General - Drawbridge Between Concrete Shield and North High Level Platform	O.W.Callahan	1-11-57
7306-01 M96	Bevatron - Misc. Gen.-Design of Heavy Duty Platform Between Magnet and Main Shielding Wall	O.Callahan	11-8-56
7307-01 M27	Bevatron Experimental Facilities - 6" - 16,000" gauss "C" Magnet Deficiencies Corrections	K. Lou	3-12-58
7307-01 M28	Bevatron - Exp. Facilities - Gap Mounted Flip up Targets Preliminary Estimate of required Driving Torque-MKI Target	W.W.Salsig, Jr.	1-18-55
7311-29 M13	Bevatron - Shielding - Utilization of Surplus Armor Plate Available at Idaho Falls	W.W.Salsig, Jr.	3-10-58
7311-29 M14	Bevatron - Shielding - Cutting and Shipping Charges and Possible Shapes available from Idaho Falls Surplus Armor Pl.	R.A.Frey, Sr.	11-25-57
7911-01 M20	72" Hydrogen Bubble Chamber Fabrication General Assembly 72 Bubble Chamber Bldg. Requirements - Bldg. 59 (April 56')	H.P.Hernandez	3-4-58
7911-30 M44	72" Hydrogen Bubble Chamber - Homalite Reflector Mounting	L.R.Lucas	2-14-58
7911-30 M45	72 Bubble Chamber, Chamber Assembly Hydrostatic Test	Hart Tanforan Lucas	3-3-58
Magnet Test			
4310-11 MT-3	Bev. H. Magnet with 4" Gap and Pole tip extended to 18" x 40" from 18" x 36"	L.G.Ratner	3-11-58