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 QUARTERLY PROGRESS REPORT
 FOR PERIOD ENDING DECEMBER 10, 1955

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Contract No. W-7405-eng-26

AIRCRAFT NUCLEAR PROPULSION PROJECT
QUARTERLY PROGRESS REPORT
For Period Ending December 10, 1955

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DATE ISSUED

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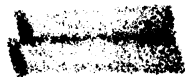
FOREWORD

This quarterly progress report of the Aircraft Nuclear Propulsion Project at ORNL records the technical progress of the research on circulating-fuel reactors and other ANP research at the Laboratory under its Contract W-7405-eng-26. The report is divided into three major parts: I. Reactor Theory, Component Development, and Construction, II. Materials Research, and III. Shielding Research.

The ANP Project is comprised of about 530 technical and scientific personnel engaged in many phases of research directed toward the achievement of nuclear propulsion of aircraft. A considerable portion of this research is performed in support of the work of other organizations participating in the national ANP effort. However, the bulk of the ANP research at ORNL is directed toward the development of a circulating-fuel type of reactor.

The design, construction, and operation of the Aircraft Reactor Test (ART), with the cooperation of the Pratt & Whitney Aircraft Division, are the specific objectives of the project. The ART is to be a power plant system that will include a 60-Mw circulating-fuel reflector-moderated reactor and adequate means for heat disposal. Operation of the system will be for the purpose of determining the feasibility, and the problems associated with the design, construction, and operation, of a high-power, circulating-fuel, reflector-moderated aircraft reactor system.






CONTENTS

FOREWORD	vii
SUMMARY	1
PART I. REACTOR THEORY, COMPONENT DEVELOPMENT, AND CONSTRUCTION	
1. REFLECTOR-MODERATED REACTOR	15
ART Facility Design and Construction	15
ART Design	19
System Flow Sheets	19
Fuel-to-NaK Heat Exchanger	19
Fuel Fill-and-Drain System	20
Reactor Shield	20
Core Flow Studies	23
Engineering Test Unit	25
Controls and Instrumentation	25
Procurement of Special Reactor Materials and Components	25
Beryllium	25
Shell Fabrication	26
CX-900 Inconel	26
Main Heat Exchangers and Radiators	26
Operation of ZrF_4 Vapor Traps in the High-Temperature Critical Experiment	26
2. EXPERIMENTAL REACTOR ENGINEERING	27
In-Pile Loop Development and Tests	27
In-Pile Loop Operation	27
Loop Purge System	29
Forced-Circulation Corrosion and Mass Transfer Tests	30
Fused-Salt-Inconel Systems	30
Liquid Metals in Multimetal Loops	32
Pump Development	33
Bearing-and-Seal Tests	33
Sodium-Pump Water Performance Tests	35
High-Temperature Tests of ART MF-2 Fuel Pump with NaK	36
High-Temperature Pump-Performance Test Stands	41
Heat Exchanger Development	41
Intermediate Heat Exchanger Tests	41
Small Heat Exchanger Tests	49
Heat-Transfer and Pressure-Drop Correlations	49
Structural Tests	54
Outer-Core-Shell Thermal-Stability Test	54
Inconel Strain-Cycling Tests	56
Thermal-Cycling Test of Sodium-Inconel-Beryllium System	58
Reactor Component Development	59
Dump Valve	59
Cold Trap and Plugging Indicator	60



Zirconium Fluoride Vapor Trap	60
Water Test of Aluminum Mockup of Top of ART	64
3. CRITICAL EXPERIMENTS	66
Room-Temperature Reflector-Moderated-Reactor Critical Experiments.....	66
Power and Neutron-Flux Distributions	66
Neutron Production in the Fuel-to-NaK Heat Exchanger	66
Radial Importance of Uranium in the Fuel Annulus.....	67
Importance of Beryllium at End of Reactor	67
Axial Importance of a Neutron Source	70
High-Temperature Reflector-Moderated-Reactor Critical Experiments	71
Compact-Core Reflector-Moderated-Reactor Critical Experiments.....	73

PART II. MATERIALS RESEARCH

4. CHEMISTRY OF REACTOR MATERIALS.....	77
Phase Equilibrium Studies.....	77
The System ZrF_4 - UF_4	77
The System LiF - UF_4	77
The System NaF - LiF - UF_4	78
The System KF - UF_4	78
The System NaF - KF - ZrF_4	79
The System NaF - LiF - BeF_2	80
The System NaF - LiF - BeF_2 - UF_4	83
The System KF - BeF_2	84
The System NaF - KF - BeF_2	84
Systems Containing Alkaline-Earth Fluorides	84
Chemical Reactions in Molten Salts.....	85
Equilibrium Reduction of FeF_2 by H_2 in $NaZrF_5$	85
Reduction of UF_4 by Structural Metals	86
Stability and Solubility of Chromium Fluorides in Various Molten Fluorides	88
Reaction of UF_3 with Alkali Fluorides.....	90
Reduction of Alkali Fluorides by Uranium Metal.....	91
Experimental Preparation of Pure Fluorides	91
Production of Purified Fluorides	92
Removal of CrF_2 from NaF - ZrF_4 - UF_4 Mixtures.....	92
Laboratory-Scale Purification Operations.....	94
Special Preparation of NaF - ZrF_4 - UF_3 - UF_4	94
Evaluation of Raw Materials for Fuel Preparation	94
Pilot-Scale Purification Operations.....	95
Production-Scale Operations.....	95
Batching and Dispensing Operations.....	95
Special Services	96
Fundamental Chemistry of Fused Salts	96
Relative Viscosity-Composition Studies of NaF - LiF - ZrF_4 Mixtures at $600^\circ C$	96
EMF Measurements in Fused Salts	97
Optical Properties and X-Ray Patterns for Various Compounds in Fluoride Systems	99
5. CORROSION RESEARCH.....	103
Forced-Circulation Studies	103



Fluorides in Inconel.....	103
Sodium in Inconel	106
Thermal-Convection Studies	107
Effect of Difference Between Loop Wall Temperature and Fluid Temperature	107
Effect of Zirconium Hydride Additions to Fluoride Mixture.....	107
Loops Fabricated from Special Inconel-Type Alloys	110
Nickel-Molybdenum Alloy Loops	111
Effect of Nitrogen Atmosphere	111
General Corrosion Studies	112
Thermal-Convection Loop Tests of Brazed Inconel T-Joints in NaF-ZrF ₄ -UF ₄	112
Seesaw Tests of Brazed Inconel T-Joints in Sodium and in Fuel Mixtures.....	113
Static Tests of Brazed Materials	117
Static Tests of Brazed Hastelloy B T-Joints in Sodium and in NaF-ZrF ₄ -UF ₄	120
Seesaw Tests of Chromel-Alumel Thermocouple Joins to Inconel Thermocouple Wells	120
Effect of Ruthenium on Physical Properties of Inconel	122
Boiling Sodium in Inconel Loop	122
Decarburization of Mild Steel by Sodium.....	123
Static Tests of Special Stellite Heats in Lithium	124
Solubility of Lithium in NaK.....	125
Seesaw Tests of Titanium Carbide Cermets in NaF-ZrF ₄ -UF ₄	127
Thermal-Cycling Tests of Inconel Valve Disks and Seats Flame-Plated with a Mixture of Tungsten Carbide and Cobalt	130
Static Tests in NaF-ZrF ₄ -UF ₄ of Kentanium Cermet Valve Parts Brazed to Inconel	131
Effect of an Air Leak Into an Inconel-Fused-Salt Test System	131
Fundamental Corrosion Research	133
Self-Decomposition of Fused Hydroxides.....	133
Mass Transfer and Corrosion of Various Materials in Fused Sodium Hydroxide	133
Chemical Studies of Corrosion	138
Reaction of Inconel with Sodium and NaK	138
Reaction of Sodium Hydroxide with Nickel.....	139
Study of Eutectic Mixtures by Zone Melting.....	139
6. METALLURGY AND CERAMICS	141
Fabrication of Test Components.....	141
NaK-to-Air High-Conductivity-Fin Radiators	141
Twenty-Tube Fuel-to-NaK Heat Exchangers	143
Intermediate Heat Exchanger No. 3	143
Intermediate Heat Exchanger Job-Sample Evaluations	144
Examination of NaK-to-Air Radiators That Failed in Service	145
Brazing-Alloy Development	149
Mechanical-Property Studies of Nickel-Molybdenum Alloys	152
Influence of Aging Heat Treatments on the Creep Properties of Hastelloy B.....	152
Preliminary Investigation of Creep Properties of Hastelloy W	153
Investigation of the Creep Properties of Some New Nickel-Molybdenum Alloys.....	153
Special Materials Studies.....	155
Extrusion of Seamless Duplex Tubing.....	155
Neutron Shielding Material for ART	162
Inconel-Clad Niobium.....	163
Gamma-Ray Shield Material for ART Pumps.....	163



Control-Rod Fabrication	163
Nondestructive Testing	164
Ceramic Research	167
Rare-Earth Cermet Fabrication.....	167
Boron Carbide Shield Material	168
7. HEAT TRANSFER AND PHYSICAL PROPERTIES	170
Fused-Salt Heat Transfer.....	170
ART Fuel-to-NaK Heat Exchanger	170
ART Core Hydrodynamics	171
ART Core Heat Transfer	174
Volume-Heat-Source Convection Analyses	177
Heat Removal from Fuel Dump Tank	177
Heat Transfer in Helical Pipes.....	177
Heat Capacity Measurements on Fluoride Mixtures	178
Heats of Fusion of Fluoride Mixtures	179
Viscosity Measurements on Fluoride Mixtures	179
Thermal Conductivities of Liquids.....	181
8. RADIATION DAMAGE	182
Disassembly and Examination of Irradiated Equipment.....	182
MTR In-Pile Loop.....	182
LITR Miniature In-Pile Loop	182
ARE Components	183
Thermocouple Errors in In-Pile Loop Temperature Measurements.....	183
Holdup of Fission Gases by Charcoal Traps	183
Creep and Stress Corrosion	184
In-Pile Tube-Burst Creep Tests	184
Alternate In-Pile Apparatus	184
9. ANALYTICAL CHEMISTRY OF REACTOR MATERIALS	186
Determination of Oxygen in Sodium	186
<i>n</i> -Butyl Bromide Method.....	186
Distillation Method.....	187
Determination of Traces of Rare-Earth Elements in Stainless Steels.....	189
Spectrophotometric Determination of Aluminum in Fluoride Salts with Aurin Tricarboxylic Acid	189
Determination of Water in Hydrogen Fluoride Gas	190
Determination of Oxygen in Zirconium Oxide by Bromination	191
Determination of Tantalum in Fused Fluoride Salts	192
Direct Determination of Traces of Fe(III) in NaF-KF-LiF-UF ₄	192
Determination of Traces of Fe(III) in Mixtures of Alkali-Metal Fluoride Salts	192
ANP Service Laboratory.....	193





10. RECOVERY AND REPROCESSING OF REACTOR FUEL	194
Pilot Plant Design	194
Engineering Developments.....	194
Contactor	194
Freeze Valves.....	194
Resistance Heating of Transfer Pipes and Waste-Discharge Nozzle	194
Process Development	195
Fused-Salt Fluorination Studies.....	195
NaF Absorption Capacity and UF_6 Loss on Desorption.....	196
UF_6 Decontamination in NaF Absorption Step.....	197

PART III. SHIELDING RESEARCH

11. SHIELDING ANALYSIS	203
Air Scattering of Co^{60} Gamma Rays: Theory vs Experiment.....	203
Energy Absorption Resulting from Gamma Radiation Incident on a Multiregion Shield with Slab Geometry.....	203
Integral Equations for the Flux Density near a Thin Foil and for Neutron Scattering in Air in the Presence of the Ground	203
12. SHIELD DESIGN	204
Calculation of the Sodium Activation in the Heat Exchangers of Circulating-Fuel Reactors	204
Calculation of Activation by Core Neutrons.....	204
Calculation of Activation by Delayed Neutrons.....	207
Calculated Total Activations for Several Reactors.....	209
13. LID TANK SHIELDING FACILITY	210
Static Source Tests with Mockups of a Reflector-Moderated Reactor and Shield	210
Effect of Varying Lead Thickness.....	210
Study of Secondary Gamma-Ray Production	213
Effect of Heavy Metals in the Reflector	218
Effect of Borating the Water Shield	219
Dynamic Source Tests with Mockups of a Reflector-Moderated Reactor and Shield	219
Sodium Activation in the Heat Exchanger.....	220
Fission-Product Gamma-Ray Spectrum	223



