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Explosives Department
Wilmington 98, Delaware

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March 15, 1955

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MINUTES OF TECHNICAL DIVISION STEERING COMMITTEE MEETING
MARCH 8, 1955, SAVANNAH RIVER LABORATORY

Committee Members Present

- D. F. Babcock
- J. W. Croach
- G. Dessauer
- L. C. Evans
- W. C. Kay
- J. W. Morris
- V. R. Thayer
- M. H. Wahl
- C. W. J. Wende
- J. C. Woodhouse
- H. Worthington

Others Assisting In Program Proposals

- R. I. Martens
- J. O. Morrison
- H. M. Kelley
- E. S. Johnson, Jr.
- D. G. Karraker

APPROVALS

The following Studies were approved for the programs outlined in the appendixes:

Study No.	Title	Man Months	From	To
8510	Purex Design Testing	Inactive	3/1/55	5/31/55
8511	Separations Process and Equipment Demonstration	35	3/1/55	5/31/55
8512	Separations Process Chemistry	45	3/1/55	5/31/55
8513	Separations Engineering Development	40	3/1/55	5/31/55
8517	Separations Process Hazards	3	3/1/55	5/31/55
8521	Hydriside Development	3	3/1/55	5/31/55
8522	Analytical Chemistry Development	20	3/1/55	5/31/55
8523	Waste Handling	3	3/1/55	5/31/55
8527	Process Development	12	3/1/55	5/31/55

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MASTER

Reviewing Official: C. J. Banick
C. J. Banick, AED Class Officer

Date: 2/4/89

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INFORMATION AND AGREEMENTS REACHED1. Safety

The Laboratory's minor injury frequency for February was 0.26, slightly lower than the 0.28 for each of the two preceding months. An analysis shows that a number of these minor injuries occurred because the people involved were not paying attention. The importance of safety awareness was covered in safety meetings during the month. Stress also was placed on the necessity for wearing safety glasses in certain parts of the Laboratory.

2. The Laboratory had six security violations (safes unlocked, papers left out, etc.) in February, an increase from three in January. Consideration is being given to having Laboratory people inspect for violations.

3. The Laboratory shop force was increased according to plan, and the backlog of work has since been reduced to a tolerable level.

4. Most of the separations development efforts for the next three months will be placed on Purex because of the current Plant need for assistance and because of the early future need for increased capacity.

5. The analytical development section of the Laboratory will transfer to Works Technical as much as possible of any work on general analytical improvement and of work aimed at establishing close coupled (sample aisle) analytical techniques.

6. The Laboratory will make a hydraulic test on a tubular fuel and tubular target assembly using a down-up-down moderator flow path. Members of the Wilmington technical section and of the Laboratory will work together on a comparison of the various versions of extended surface fuel and target assemblies.

7. The next Steering Committee meeting will be held at the Laboratory on April 5. This date is a departure from the usual schedule.

8. Attached for information are:

Appendix A - Financial Status

Appendix B - Separations Program

Appendix C - Analytical Chemistry Program

Appendix D - Technical Division Study Status

TECHNICAL DIVISION



L. C. Evans

LCE:hw
Attachs.

APPENDIX AFINANCIAL STATUS

For FY-1955 through January, Technical Division expenditures were \$49,000, or 1.1%, in excess of the Financial Plan although January expenditures were \$14,000 under the Plan for that month. The Financial Plan increases in somewhat linear fashion from \$703,000 for January to \$757,000 for June. Because of certain factors not predictable earlier, it is believed that the current Financial Plan will be overrun substantially by the end of FY-1955. This situation is being watched closely and will be reviewed in about a month for the purpose of requesting any necessary additional funds for the remainder of FY-1955. The SROO has been alerted to the probable need for an increase of up to, perhaps, \$650,000.

Factors that will keep costs up include the following:

1. Additional engineering work requests for mechanical development work.
2. An increased level of shop work.
3. A continuation of tubular enriched fuel work and later the advent of tubular thorium work in Bldg. 320.
4. The purchase of components for new fuel element assemblies.
5. The construction of the fluid pressure facility. The cost of constructing this facility was included in the current Financial Plan. However, it now appears that this facility will cost in the neighborhood of \$350,000 instead of the \$225,000 initially forecast.
6. Construction of the development facility for the thorium recycle process. The current Financial Plan does not include funds for this purpose. However, the SROO was made aware of this potential need several months ago and are expecting a modification of the Plan to cover this item.

It is interesting to note that the Technical Division actual cost per budgeted man year has been over \$30,000 (the budget basis) for the past six successive months and has averaged \$33,500 per budgeted man year for the past four months. One factor that alleviates the overrun that this situation might cause is the fact that we budgeted for more men than are presently engaged in direct work. Our budget for Fiscal Years 1956 and 1957 is based on an average of \$34,000 per man year and for approximately 25 more men than are now on direct work.

APPENDIX B

SEPARATIONS PROGRAM
March 1, 1955 - May 31, 1955

<u>Study No.</u>	<u>Title</u>	<u>Manpower Forecast</u>	<u>Estimated Man Months</u>
8510	Purex Design Testing		--
8511	Separations Process and Equipment Demonstration		35
8512	Separations Process Chemistry		45
8513	Separations Engineering Development		40
8517	Separations Process Hazards		3
8521	Hydriside Development		3
8523	Waste Handling		3
8527	Recycle Development		<u>12</u>
		Total	141

Program

Man Months

Purex

<u>Short Term (200-F) Assistance</u>	77
Equipment	
M-S, Jets, Pumps, Solvent Recovery, Evaporators	
Sampler	
Solvent Extraction Process	
Solvent Degradation and Recovery	
Product Finishing	
Miscellaneous	
<u>Longer Term Improvements</u>	40
Equipment	
Process Changes (e.g. solvent extraction at higher temp.)	
Capacity Studies	

APPENDIX B (Cont.)

	<u>Man Months</u>
<u>Thorium</u>	117
Separations Process	4
Recycle	12
<u>U-235 Separations</u>	2
<u>Tritium</u>	6
Thermal Column	
D-Line	
E-Line	
Total	<u>141</u>

APPENDIX CANALYTICAL CHEMISTRY PROGRAM
March 1, 1955 - May 31, 1955Summary of Man-Months Expenditures

	<u>Estimated Man Months</u>
Study 8522 - Analytical Chemistry Development	20
<u>Proposed Distribution by Areas</u>	
<u>Short Term 200 Area Studies</u>	16 *
Direct Laboratory Assistance	
Close Coupled Analysis	
In-Line Analysis	
Solvent Degradation	
<u>Long Term 200 Area Studies</u>	10
Increased Capacity	
Methods Improvement	
Isotopic Analysis	
Special Counting Instruments	
<u>100 Area Studies</u>	2
In-Line Moderator Analysis	
Detection of Leakage Tracers	
<u>300 Area Studies</u>	2
Thorium metal analysis	—
Total	<u>30</u> *

* Includes 10 man months for direct assistance - not charged against Study 8522.

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APPENDIX D

TECHNICAL DIVISION STUDY STATUS

DPW-55-15-3

Study No.	Title	Man Mo.	From	To	Man Mo. used to 2/28	Total Man Mo. used FY-1955	Program	Budget
8501	Non-destructive Testing	12	1/1/55	3/31/55	7.00	61.55	40% MD 30% MD 30% MD	2802 2961 2922
8502	300 Area Process Development - Present Components	3	1/1/55	3/31/55	1.40	8.65	MD	2802
8503	New Fuel Element Fabrication	7	1/1/55	3/31/55	5.60	24.55	MD	2802
8504	Protective Coatings for New Fuel Elements	25	1/1/55	3/31/55	16.00	55.75	MD	2802
8505	Corrosion	12	1/1/55	3/31/55	6.95	30.75	30% MD 50% MD 20% MD	2802 2922 2961
8506	100 Area Process Development - General	19.5	2/1/55	4/30/55	3.80	39.15	60% RPD 40% RPD	2803 2923
8507	Heat Transfer and Water Quality					0	RPD	2803
8508	Instrument Development - 300 Area	25	1/1/55	3/31/55	13.15	13.15	40% MD 30% MD 30% MD	2802 2922 2961
8509	Design and Evaluation of Fuel Elements	41.5	2/1/55	4/30/55	14.90	112.15	50% RPD 50% RPD	2803 2923
8510	Purex Design Testing			Inactive			CPD	2804
8511	Separations Process and Equipment Demonstration	35	3/1/55	5/31/55	0	84.35	95% CPD 5% CPD	2804 2910
8512	Separations Process Chemistry	45	3/1/55	5/31/55	0	125.00	85% CPD 5% CPD 10% CPD	2804 2910 2924

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APPENDIX D

TECHNICAL DIVISION STUDY STATUS (Cont.)

DPW-55-15-3

Study No.	Title	Man Mo.	From	To	Man Mo. used to 2/28	Total Man Mo. used FY-1955	Program	Budget	
8513	Separations Engineering Development	40	3/1/55	5/31/55	0	88.95	90% CPD 5% CPD 5% CPD	2804 2910 2924	
8514	Instrument Development - 200 Area	23	1/1/55	3/31/55	15.75	15.75	70% CPD 10% CPD 20% CPD	2804 2910 2924	
8515	Instrument Development - 100 Area	19	1/1/55	3/31/55	13.10	13.10	50% RPD 50% RPD	2803 2923	
8517	Separations Process Hazards	3	3/1/55	5/31/55	0	9.20	CPD	2804	
8518	Theoretical Physics	40	2/1/55	4/30/55	9.45	80.65	55% RPD 45% RPD	2803 2923	
8519	Experimental Pile Physics	70	2/1/55	4/30/55	22.15	170.40	60% RPD 40% RPD	2803 2923	
8520	100 Area Mechanical Development	38	2/1/55	4/30/55	13.05	92.50	60% RPD 40% RPD	2803 2923	
8521	Hydriside Development	3	3/1/55	5/31/55	0	19.35	CPD	2804	
8522	Analytical Chemistry Development	20	3/1/55	5/31/55	0	74.55	10% RPD 50% CPD 10% MD 30% CPD	2803 2804 2922 2924	
8523	Waste Handling	3	3/1/55	5/31/55	0	1.90	CPD	2804	
8524	New LM Elements	40	1/1/55	3/31/55	23.50	103.70	35% MD 65% MD	2922 2961	
8525	Fluid Pressure Facility		(For construction cost only)					MD	2802
8526	Recycle Facility		(For construction cost only)					CPD	2604
8527	Recycle Development	12	3/1/55	5/31/55	0	0	CPD	2604	