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TO: Director, Division of Production
USAEC, Washington, D. C.

FROM: J. E. Travis, Manager, Hanford Operations
Office, USAEC, Richland, Washington

SUBJECT: MONTHLY STATUS AND PROGRESS REPORT

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Enclosed herewith is Part I [REDACTED] of subject report for the month of [REDACTED]. The "Official Use Only" portion, Part II, is forwarded as a separate report.

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U. S. ATOMIC ENERGY COMMISSION
HANFORD OPERATIONS OFFICE

MONTHLY STATUS AND PROGRESS REPORT

MARCH 1960

PART I

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MONTHLY STATUS AND PROGRESS REPORT

HANFORD OPERATIONS OFFICE

MARCH 1960

PART I

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HIGHLIGHT STATEMENT - MARCH 1960

OPERATIONS

CANNED FUEL ELEMENT PRODUCTION TOTALLED 711 TONS, 103.3% OF FORECAST. THE TOTAL CONSISTED OF 61 TONS OF SOLID AND 597 TONS OF I&E NORMAL-URANIUM AND 53 TONS OF I&E 94-METAL. YIELDS WERE 90.2% FOR SOLID AND 85.4% FOR I&E NORMAL-URANIUM AND 86.5% FOR 94-METAL PIECES.

IN-REACTOR PRODUCTION TOTALLED 105.9% OF FORECAST. THE OVER-ALL REACTOR TIME-OPERATED EFFICIENCY WAS 80.9%. A NEW MAXIMUM POWER LEVEL WAS ACHIEVED AT DR REACTOR. DURING THE MONTH, THERE WERE 14 FUEL ELEMENT FAILURES. OF THESE, 11 WERE I&E NORMAL-URANIUM, 1 WAS SOLID NORMAL-URANIUM, AND 2 WERE I&E 94-METAL.

TOTAL SEPARATIONS PLANT PLUTONIUM PRODUCTION WAS 48.9% OF FORECAST WITH 76.5% OF THE TOTAL PRODUCED BY PUREX AND 23.5% BY REDOX. PRODUCTION FELL BELOW FORECAST BECAUSE OF UNEXPECTED OUTAGE TIME FOR PUREX MAINTENANCE.

PRODUCTION OF NORMAL UO_3 TOTALLED 357 TONS, 79.3% OF FORECAST. PRODUCTION OF 94-METAL UO_3 TOTALLED 98 TONS, 200% OF FORECAST. ALL SHIPPING SCHEDULES WERE MET.

PLANT ACQUISITION AND CONSTRUCTION

NEW PRODUCTION REACTOR - DESIGN IS 46% COMPLETE AND CONSTRUCTION IS 0.7% COMPLETE VS. 1.6% SCHEDULED; PROCUREMENT TO APRIL 1 AMOUNTED TO \$14,412,000. THE FEDERAL POWER COMMISSION REPORT ON POWER CONVERSION WAS TRANSMITTED TO THE WASHINGTON OFFICE. (SEE PART I, PAGES 9 AND 11.)

REACTOR CONFINEMENT - DESIGN IS 90% COMPLETE, CONSTRUCTION IS 37% COMPLETE VS. 41% SCHEDULED. A REVISED PROPOSAL INCLUDES AN ESTIMATE OF \$6,380,000. (SEE PART I, PAGES 9 AND 11.)

PRTR - CONSTRUCTION IS 82% COMPLETE AGAINST 90% SCHEDULED. (SEE PART I, PAGE 11.)

PFPP - DESIGN IS COMPLETE AND CONSTRUCTION IS 88% COMPLETE VS. THE SCHEDULED 86%. (SEE PART I, PAGE 11.)

COMMUNITY

PROPERTY DISPOSAL - 5,154 SALE PROPERTIES OF A 5,361 TOTAL HAVE BEEN SOLD AND AN ADDITIONAL 27 GOOD FAITH DEPOSITS HAVE BEEN RECEIVED.

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PLANT OPERATIONS

METAL PREPARATION

CANNING - NET PRODUCTION OF CANNED FUEL ELEMENTS TOTALED 711 TONS, 103.3% OF FORECAST ^{1/}. THIS TOTAL CONSISTED OF:

NORMAL URANIUM			
SOLID	61 TONS	90.2% YIELD	
I&E	597 "	85.4% "	
94 METAL - I&E	53 "	85.5% "	

THE 597 TONS OF NORMAL-URANIUM I&E PIECES INCLUDED 10 TONS OF WATER MIXING ELEMENTS. FIVE CANNING LINES WERE OPERATED ON EACH OF TWO SHIFTS ON A FIVE-DAY-PER-WEEK BASIS. CANNING LINE TIME-OPERATED EFFICIENCY WAS 93.3%.

AT THE END OF THE REPORT PERIOD, THE COMBINED INVENTORY OF BARE CORES AND FINISHED ACCEPTABLE NORMAL-URANIUM FUEL ELEMENTS FOR ROUTINE PRODUCTION MODELS VARIED BY TYPE FROM 1.8 MONTHS' SUPPLY TO 4.0 MONTHS' SUPPLY. COMBINED INVENTORIES OF BARE AND ACCEPTABLE FINISHED 94-METAL PIECES VARIED BY TYPE FROM 2.4 MONTHS' TO 3.6 MONTHS' SUPPLY. THE INVENTORY OF CAPS AND CANS ON HAND AT MONTH END WAS ABOUT 3.3 MONTHS' SUPPLY.

AUTOCLOVE FAILURES - FIVE FUEL ELEMENTS FAILED DURING AUTOCLOVE TESTING IN MARCH. TWO OF THESE WERE CAUSED BY PINHOLES IN THE CAP WELDS, ONE WAS CAUSED BY WATER ENTRY AT THE ARC STRIKE-OVER POINT, AND TWO RESULTED FROM WATER ENTRY AT OR NEAR THE SPOT WELDS ON BUMPER SUPPORTS ON SLUGS BEING PREPARED FOR A PRODUCTION TEST. THE LATTER TWO FAILURES ARE BEING CAREFULLY STUDIED AND THE WELDING EVALUATED BECAUSE OF THEIR RELATIONSHIP TO THE SELF-SUPPORTED FUEL ELEMENT PROGRAM.

SCRAP SHIPMENTS - NO SCRAP SHIPMENTS WERE MADE FROM HANFORD DURING MARCH.

REACTOR OPERATION

DURING MARCH, REACTOR PRODUCTION RATES IN TERMS OF INDEX ^{2/} WERE:

	<u>B</u>	<u>C</u>	<u>D</u>	<u>DR</u>	<u>F</u>	<u>H</u>	<u>KE</u>	<u>KW</u>	<u>TOTAL</u>
MAXIMUM POWER LEVEL DURING MONTH (INCLUDES ALL PRODUCTION)	85.5	101.2	88.2	91.5	89.0	92.8	181.2	190.8	920.2
AVERAGE LEVEL WHILE OPERATING (INCLUDES ALL PRODUCTION)	77.2	89.2	81.6	86.7	79.5	88.0	164.4	177.0	843.6
TIME-OPERATED EFFICIENCY	80.1	81.6	79.2	84.6	74.8	79.2	85.2	82.3	80.9

IN-REACTOR PRODUCTION WAS 105.9% OF FORECAST ^{1/}. THE OVER-ALL TIME-OPERATED EFFICIENCY WAS 80.9% COMPARED WITH A FORECAST OF 81.5%. THE PRODUCTION EFFICIENCY ^{3/} WAS 81.5%. A NEW MAXIMUM POWER LEVEL WAS ESTABLISHED AT DR REACTOR.

DURING MARCH, THERE WERE 14 FUEL ELEMENT FAILURES. OF THESE, 11 WERE I&E NORMAL; TWO WERE I&E 94-METAL; AND ONE WAS A SOLID NORMAL. THE CUMULATIVE NUMBER OF NORMAL-URANIUM RUPTURE INCIDENTS IS NOW 1,174, INVOLVING 1,194 PIECES (INCLUDING 113 I&E PIECES). THE CUMULATIVE NUMBER OF 94-METAL RUPTURE INCIDENTS IS NOW 68, INVOLVING 70 PIECES.

AT THE END OF THE MONTH, EQUILIBRIUM POWER LEVELS WERE LIMITED BY FUEL ELEMENT FAILURE CONTROL CONSIDERATIONS AT ALL REACTORS EXCEPT DR. AT DR REACTOR, THE EQUILIBRIUM POWER LEVEL WAS LIMITED BY BULK OUTLET WATER TEMPERATURE.

^{1/} "SECRET" DOCUMENT HW-63547 (HAN-74442) MACCREADY/TRAVIS, DATED JANUARY 25, 1960, SUBJECT "HAPO PRODUCTION FORECAST."

^{2/} "SECRET" MEMORANDUM BLOCH/TRAVIS, DATED JUNE 8, 1959, SUBJECT "REVISION OF INDEX NUMBERS," SYMBOL PRP:EFG.

^{3/} PRODUCTION EFFICIENCY = $\frac{\text{SUM OF 8 AVERAGE POWER LEVELS FOR THE MONTH}}{\text{SUM OF 8 AVERAGE POWER LEVELS WHILE OPERATING}}$

PLANT OPERATIONS (CONT'D)

REACTOR OPERATION (CONT'D)

FOLLOWING IS A SUMMARY OF MARCH REACTOR OUTAGES:

<u>DATE DOWN</u>	<u>DATE UP</u>	<u>OUTAGE HOURS</u>	<u>REMARKS</u>
<u>B REACTOR:</u>			
3-3	3-6	74.2	LEAK TESTING AND TUBE REPLACEMENT.
3-13	3-14	37.7	REMOVAL OF A STUCK I&E NORMAL-URANIUM RUPTURE FROM TUBE 2184. COMPLETED CHARGE-DISCHARGE.
3-22	3-23	36.0	PANELLIT TRIP DUE TO PIGTAIL FAILURE. PERFORMED CHARGE-DISCHARGE AND MISCELLANEOUS MAINTENANCE.
<u>C REACTOR:</u>			
2-29	3-2	49.7	CONCLUDED RUPTURE REMOVAL FOLLOWED BY CHARGE-DISCHARGE.
3-2	3-2	0.5	PANELLIT TRIP.
3-2	3-2	4.0	POISON DISCHARGE.
3-4	3-5	30.5	A HEAT IMBALANCE CAUSED BY VSR NO. 35 DROPPING. PERFORMED CHARGE-DISCHARGE.
3-17	3-19	35.5	REMOVAL OF AN I&E 94-METAL RUPTURE FROM TUBE 0566. PERFORMED CHARGE-DISCHARGE AND MAINTENANCE.
3-19	3-19	2.5	REPAIR OF TWO FAULTY THERMOCOUPLES.
3-29	3-31	33.5	REMOVAL OF A STUCK I&E NORMAL-URANIUM RUPTURE FROM TUBE 2567. COMPLETED CHARGE-DISCHARGE.
<u>D REACTOR:</u>			
3-3	3-5	34.3	REMOVAL OF AN UNCONFIRMED I&E NORMAL-URANIUM (MIXER) RUPTURE FROM TUBE 4187. COMPLETED CHARGE-DISCHARGE.
3-21	3-25	85.5	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 3563. PERFORMED MAINTENANCE, CHARGE-DISCHARGE, AND TUBE REPLACEMENT.
3-25	3-27	35.4	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 1463. PERFORMED MAINTENANCE.
<u>DR REACTOR:</u>			
3-9	3-11	38.5	LEAK TESTING AND TUBE REPLACEMENT.
3-22	3-23	44.1	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 3877. COMPLETED CHARGE-DISCHARGE.
3-25	3-26	32.0	REMOVAL OF AN I&E 94-METAL RUPTURE FROM TUBE 0859, FOLLOWED BY MISCELLANEOUS MAINTENANCE.
<u>F REACTOR:</u>			
3-1	3-3	48.3	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 2369. COMPLETED CHARGE-DISCHARGE.
3-3	3-3	3.7	PANELLIT TRIP DUE TO A TUBULAR DUMMY IN THE NOZZLE AT THE REAR PIGTAIL.
3-9	3-11	52.1	LEAK TESTING AND CHARGE-DISCHARGE.
3-28	STILL DOWN		REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 3873. CHARGE-DISCHARGE AND TUBE REPLACEMENT ARE IN PROGRESS.
<u>H REACTOR:</u>			
3-2	3-5	67.1	LEAK TESTING AND CHARGE-DISCHARGE.
3-11	3-12	34.1	POWER FAILURE CAUSED BY THE FAILURE OF NO. 2 PROCESS PUMP AT F REACTOR. PERFORMED CHARGE-DISCHARGE AND MAINTENANCE.
3-12	3-13	2.1	PANELLIT TRIP DUE TO A HOKE VALVE BEING PARTIALLY CLOSED.
3-15	3-17	41.6	LEAK TESTING, TUBE REPLACEMENT, AND CHARGE-DISCHARGE.
3-31	3-31	0.5	HIGH PRESSURE PANELLIT TRIP ON TUBE 1464.
3-31	STILL DOWN		REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 1464.

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PLANT OPERATIONS (CONT'D)

REACTOR OPERATION (CONT'D)

DATE DOWN	DATE UP	OUTAGE HOURS	REMARKS
<u>KE REACTOR:</u>			
3-10	3-12	49.0	PANELLIT TRIP DUE TO THE FAILURE OF A PUMP SERVICING SINGLE-PASS TUBES 4557 AND 4863. COMPLETED CHARGE-DISCHARGE.
3-19	3-21	30.0	POWER LOSS CAUSED BY FAULTY CONTACT ON INCOMING LINE, FOLLOWED BY CHARGE-DISCHARGE.
3-23	3-24	30.9	REMOVAL OF A SOLID NORMAL-URANIUM RUPTURE FROM TUBE 2044. COMPLETED CHARGE-DISCHARGE.
<u>KW REACTOR:</u>			
3-11	3-13	66.2	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 2060. COMPLETED CHARGE-DISCHARGE.
3-13	3-14	21.2	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 2562, FOLLOWED BY MISCELLANEOUS MAINTENANCE.
3-15	3-15	6.0	POISON DISCHARGE.
3-17	3-18	38.0	REMOVAL OF AN I&E NORMAL-URANIUM RUPTURE FROM TUBE 3557. COMPLETED CHARGE-DISCHARGE.

FUEL ELEMENT FAILURES - FOLLOWING IS A SUMMARY OF MARCH FUEL ELEMENT FAILURES:

TABULATION OF RUPTURED URANIUM SLUGS							
TUBE NO.	DATE RUPTURED	TUBE POWER ^{1/}	CONCENTRATION (MWD/T)	ASSIGNED LOSS MWD	LOSS DAYS	METAL	TYPE FAILURE
(NORMAL)							
2369-F	3-1	1230	376	1977	1.24	I&E	HOT SPOT.
2060-KW	3-11	1461	661	6316	1.78	I&E	NOT DETERMINED.
2184-B	3-13	1201	571	1660	1.07	I&E	NOT DETERMINED.
2562-KW	3-13	1397	373	2357	0.66	I&E	NOT DETERMINED.
3557-KW	3-17	1398	387	4290	1.21	I&E	NOT DETERMINED.
3563-D	3-21	1187	548	2075	1.27	I&E	SIDE OTHER.
3877-DR	3-22	1120	212	1932	1.11	I&E	SIDE OTHER.
2044-KE	3-23	784	402	4599	1.40	SOLID	SPLIT.
1463-D	3-25	1135	557	2651	1.62	I&E	UNCLASSIFIED
3873-F	3-28	-	553	1010	0.64	I&E	SIDE OTHER.
2567-C	3-29	1106	429	1460	0.82	I&E	HOT SPOT.
1464-H	3-31	1133	659	659	0.37	I&E	UNCLASSIFIED.
(94 METAL)							
0566-C	3-17	1174	442	582	0.33	I&E	HOT SPOT.
0859-DR	3-25	902	377	1415	0.82	I&E	HOT SPOT.

TUBE REPLACEMENT - FIFTY-FIVE PROCESS TUBES WERE REPLACED: 35 AT F; 11 AT D; 3 AT KW; AND 2 EACH AT B, DR, AND H. TEN WATER LEAKS WERE CORRECTED (5 TUBE LEAKS AND 5 VAN STONE LEAKS). TWO TUBE LEAKS WERE AT H AND ONE EACH AT B, DR, AND F. FOUR VAN STONE LEAKS WERE AT F AND ONE AT B.

DINGOT URANIUM TESTING - THE PRODUCTION TEST, "IRRADIATION OF ALLOYED DINGOT URANIUM FUEL ELEMENTS," CONTINUED DURING MARCH. FOUR OF THE 12 CONTROL COLUMNS WERE DISCHARGED AT AN EXPOSURE OF 400 MWD/T FOR SPECIAL MEASUREMENTS AND TO CHECK FOR EARLY STABILITY EFFECTS. RESULTS OF THESE MEASUREMENTS WILL FORM A BASIS FOR THE GOAL EXPOSURE OF THE REMAINDER OF THE 30 TONS STILL UNDER IRRADIATION. THE ONLY MEASUREMENT PERFORMED TO DATE ON THIS METAL IS FOR WARP, AND THE RESULT INDICATES NO SIGNIFICANT DIFFERENCE BETWEEN INGOT AND DINGOT.

IN-PILE CORROSION TEST - TWO CHARGES OF FUEL ELEMENTS WHICH HAD BEEN COATED WITH A WATER-SOLUBLE SILICATE COATING WERE IRRADIATED IN C REACTOR FOR 10 DAYS UNDER A PRODUCTION TEST. THE COATING CAUSED NO DETECTABLE ILL EFFECTS AND DID REDUCE THE DEGREE OF RIB GALLING. THE MAIN PART OF THE PRODUCTION TEST WILL NOW BE CHARGED TO DETERMINE LONG-TERM CORROSION EFFECTS.

^{1/} AT TIME OF RUPTURE.

PLANT OPERATIONS (Cont'd)SEPARATIONS

TOTAL SEPARATIONS PLANT PLUTONIUM PRODUCTION WAS 48.9% OF FORECAST ^{1/} WITH 76.5% OF THE TOTAL PRODUCED BY PUREX AND 23.5% BY REDOX. PRODUCTION FELL BELOW FORECAST BECAUSE OF UNEXPECTED OUTAGE TIME FOR PUREX MAINTENANCE. THE LARGEST SINGLE ITEM WAS THE REPLACEMENT OF THE F-5 RECOVERED ACID ABSORBER. TOTAL PLUTONIUM PRODUCTION FOR THE QUARTER WAS ONLY 8.6% BELOW FORECAST.

PUREX - THE PLANT PROCESSED 233.6 TONS OF NORMAL URANIUM DURING MARCH. OPERATIONS WERE DOWN AT THE BEGINNING OF THE MONTH FOR NEPTUNIUM RECOVERY AND TO PERFORM EXTENSIVE EQUIPMENT FLUSHING IN CONNECTION WITH THE 1C COLUMN REPLACEMENT FOR CAPACITY INCREASE. DURING THE NEPTUNIUM RECOVERY RUN, 1420 GRAMS OF NEPTUNIUM WERE SEPARATED FROM AN ESTIMATED INVENTORY OF 1,760 GRAMS, REPRESENTING A RECOVERY YIELD OF 81% AND A TOTAL RECOVERY OF 56%. THE FINAL CONCENTRATED NEPTUNIUM PRODUCT WAS UNUSUALLY LOW IN PLUTONIUM AND URANIUM (0.4% AND 0.02%, RESPECTIVELY) WITH BETTER-THAN-USUAL GAMMA DECONTAMINATION.

PROCESSING OF NORMAL URANIUM WAS STARTED ON MARCH 15. ON MARCH 17, OPERATIONS WERE DISCONTINUED TO REPLACE THE F-5 RECOVERED ACID ABSORBER. OPERATIONS WERE RESUMED ON MARCH 22 AND WERE CONTINUOUS FOR THE REMAINDER OF THE MONTH.

THE SILICA-GEL FACILITY PROCESSED ALL OF THE URANIUM THROUGHPUT TO PRODUCE IN-SPECIFICATION MATERIAL.

WASTE LOSSES WERE HIGH FOR THE MONTH DUE TO RIGOROUS FLUSHING DURING SHUTDOWN. WASTE LOSSES TOTALLED 1.33% OF PLUTONIUM THROUGHPUT AND 0.46% OF URANIUM THROUGHPUT.

THE ATMOSPHERIC RELEASE OF RADIOACTIVE IODINE AVERAGED 0.19 CURIES PER DAY FOR THE MONTH. THE MONTHLY TOTAL WAS 6.03 CURIES, WITH A DAILY MAXIMUM OF 0.76 CURIES.

ALL AVAILABLE MANPOWER WAS UTILIZED TO REMOVE THE CONTAMINATION THAT RESULTED FROM THE FIRE IN N CELL LAST MONTH. PROGRESS WAS SLOW BUT ENCOURAGING; AND, BY MONTH'S END, THE MAJORITY OF THE CLEANUP WAS COMPLETED.

REDOX - THE REDOX PLANT PROCESSED 42.5 TONS OF 94 METAL IN ABOUT NINE DAYS OF OPERATION DURING MARCH.

OPERATIONS PROGRESSED SATISFACTORILY UNTIL THE QUARTERLY PRODUCTION FORECAST WAS MET ON MARCH 10. AT THIS TIME, REWORK OF OFF-SPECIFICATION URANIUM WAS BEGUN AND CONTINUED UNTIL MARCH 11. THE REMAINDER OF THE MONTH WAS USED FOR A NEPTUNIUM RECOVERY RUN, REPLACEMENT OF THE OLD B DISSOLVER WITH A MULTIPURPOSE UNIT, 60% ACID FLUSH OF EQUIPMENT, AND MISCELLANEOUS MAINTENANCE AND PLANT IMPROVEMENT ITEMS.

THE MULTIPURPOSE DISSOLVER WAS DESIGNED TO PROVIDE: (1) A VESSEL CRITICALLY SAFE BY GEOMETRY FOR DISSOLVING FUELS OF ENRICHMENTS UP TO ONE PERCENT EQUIVALENT U-235; (2) A VESSEL THAT CAN BE CHARGED WITH FUEL ELEMENTS UP TO TEN FEET LONG; (3) A VESSEL IN WHICH SMALL CHARGES CAN BE DISSOLVED WITHOUT USING MORE CHEMICALS THAN NEEDED; (4) A BYPASS ROUTING AROUND THE SILVER REACTOR DURING CLADDING REMOVAL; AND (5) AN ALTERNATE OFF-GAS ROUTING REQUIRED FOR USE WITH NOVEL DE-CLADDING PROCESSES, INCLUDING THE ZIRFLEX PROCESS.

A NEW TECHNIQUE FOR INCREASING THE DISSOLVING RATE OF URANIUM METAL WAS TESTED. THIS WAS A RESULT OF LABORATORY EXPERIMENTS ESTABLISHING THAT THE PRESENCE OF FERRIC ION IN THE DISSOLVER SOLUTION NEAR THE END OF A "CUT" INCREASES THE NORMALLY LOW DISSOLVING RATE CONSIDERABLY. FORTY POUNDS OF SCRAP IRON WAS ADDED TO THE DISSOLVER WITH 2-TON CHARGE OF ENRICHED METAL. AN AVERAGE TIME CYCLE OF APPROXIMATELY TWENTY-FOUR HOURS WAS OBSERVED FOR THE TEST DISSOLVINGS, IN CONTRAST WITH THIRTY-SIX HOURS FOR THE PREVIOUS CONDITIONS.

THE SECOND NEPTUNIUM RECOVERY RUN AT REDOX WAS MADE. THE ORIGINAL REMOVAL SCHEME WAS MODIFIED TO EXTRACT NEPTUNIUM, URANIUM, AND PLUTONIUM TOGETHER IN THE SECOND EXTRACTION COLUMN AND OBTAIN SEPARATION OF THE NEPTUNIUM FROM THE URANIUM AND PLUTONIUM IN AN ACID-DEFICIENT PARTITIONING COLUMN. DIFFICULTY WAS EXPERIENCED WHEN TOO MUCH ACID WAS CARRIED FROM THE 1A EXTRACTION COLUMN INTO THE 1B PARTITIONING COLUMN. THIS PREVENTED THE ACID-DEFICIENCY NEEDED TO REDUCE THE NEPTUNIUM.

DUE TO RECYCLED LOSSES, IN-CELL EQUIPMENT LEAK, AND CONDENSATE LOSSES WHEN A STRIPPING VESSEL WAS USED AS A CONCENTRATOR, ONLY 210 GRAMS OF NEPTUNIUM WERE ACTUALLY REMOVED. ABOUT 50 GRAMS WERE PERMANENTLY LOST TO WASTE TANKS, AND ROUGHLY 240 GRAMS REMAINED IN WASTES TANKED FOR RETURN TO THE INTERNAL RECYCLE FLOW PATTERN.

1/ "SECRET" DOCUMENT HW-63547 (HAN-74442) MACCREADY/TRAVIS, DATED JANUARY 25, 1960, SUBJECT "HAPO PRODUCTION FORECAST."

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PLANT OPERATIONS (CONT'D)

SEPARATIONS (CONT'D)

REDOX (CONT'D)

THE ATMOSPHERIC RELEASE OF RADIOACTIVE IODINE AVERAGED 0.035 CURIES PER DAY FOR THE MONTH. A MONTHLY TOTAL OF 1.07 CURIES, WITH A ONE-DAY MAXIMUM OF 0.29 CURIES, WERE MEASURED.

UO₃ - UO₃ PRODUCTION FOR MARCH TOTALED 357 TONS, 79.3% OF FORECAST, FOR NORMAL URANIUM AND 98 TONS, 200% OF FORECAST, FOR 94 METAL. ALL SHIPPING SCHEDULES WERE MET.

RESEARCH AND DEVELOPMENT

NEPTUNIUM PROCESSING - DURING MARCH, 1,420 GRAMS OF NEPTUNIUM WERE SEPARATED AT PUREX AND 210 GRAMS WERE SEPARATED AT REDOX.

TO IMPROVE THE STRAIGHTNESS OF THE ELEMENTS, A CYLINDER OF ALUMINUM IS BEING PLACED IN THE EXTRUSION CHAMBER BEHIND THE NEPTUNIUM BILLETS TO APPROXIMATELY DOUBLE THE LENGTH OF THE EXTRUDED ROD. THE RODS CAN NOW BE PASSED THROUGH THE SAME ROLLER STRAIGHTENER USED FOR THE TRANSPLUTONIUM RODS. AFTER CORE LOCATION, THE 12-INCH NEPTUNIUM ELEMENT IS SAWED FROM THE 6-FOOT ROD. IN ADDITION TO BEING MORE NEARLY STRAIGHT, THE ELEMENTS HAVE A MUCH BETTER SURFACE FINISH.

OF THE FIRST 118 FUEL RODS PROCESSED THROUGH THE ULTRASONIC BOND TESTER, 80% MET THE SPECIFICATIONS FOR ACCEPTABLE RODS. OF THE NEXT GROUP OF 89 RODS, 88% WERE SATISFACTORY. NO RODS HAVE BEEN REJECTED BECAUSE OF SEGREGATION IN THE AL-Pu CORE.

OVER 100 BILLETS HAVE BEEN CAST WITH BOTH END CONFIGURATIONS, THUS COMPLETELY ELIMINATING MACHINING AND SCRAP GENERATION WITH THE EXCEPTION OF CHIPS FROM CUTTING OFF ONE END. ALL BILLETS FOR FABRICATION ARE NOW BEING CAST TO SHAPE.

ANL PYROPHORICITY STUDIES - AT PRESENT, 8 KG OF Pu HAVE BEEN VACUUM CAST INTO 2 KG BILLETS PRIOR TO WHAT IS HOPED WILL BE A FURTHER PURIFICATION OPERATION BY MELTING IN THE ELECTRON BEAM MELTING FACILITY. THIS "PURE" PLUTONIUM WILL BE THE FEED FOR THE ALLOY PROGRAM. CARBON, IRON, AND NICKEL ALLOYS ARE SCHEDULED TO BE THE FIRST ALLOYS MADE.

THE ROLLING FACILITY (6" X 8" VACUUM HOODED MILL) IS NEARING COMPLETION.

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DOCUMENT NO. HAN-75122 *del*

PLANT ACQUISITION AND CONSTRUCTION

PROJECT AND DESIGN STUDIES

AEC-167, PLUTONIUM RECYCLE TEST REACTOR - A REVISED PROPOSAL REQUESTING AUTHORIZATION OF \$12,750,000 AS TOTAL PROJECT FUNDS HAS BEEN APPROVED.

CGI-791, REACTOR CONFINEMENT - A PROJECT PROPOSAL COVERING PHASE III (VENTILATION MODIFICATION) AND A TOTAL PROJECT COST ESTIMATE OF \$6,380,000 HAS BEEN GIVEN LOCAL APPROVAL AND WILL BE FORWARDED FOR HEADQUARTERS APPROVAL. AN INTERIM DIRECTIVE HAS BEEN ISSUED TO PERMIT ORDERLY AND UNINTERRUPTED PROGRESS OF THE WORK.

PHASES I AND II DETAILED DESIGN ARE COMPLETE. PHASE III DETAILED DESIGN IS 72% COMPLETE VERSUS 82% SCHEDULED. UNCOMPLETED DESIGN IS NOT CONTRIBUTING TO CONSTRUCTION DELAY.

DURING THE MONTH, PHASE III SCOPE DESIGN WAS APPROVED FOR THE FOLLOWING:

1. BUILDING SEALING FOR VENTILATION CONTROL.
2. BACKUP DIESEL DRIVES FOR K AREA FANS.
3. MOTOR, FAN, AND TURBINE MODIFICATIONS AND REPLACEMENT.
4. MODIFICATION OF VENTILATION INTAKES TO RAISE LEVEL OF ENTRY AIR AND ASSURE NONFREEZING OF AIR HEATING COILS.
5. INSTALLATION OF DUPLICATE SERIES OF HIGH EFFICIENCY FILTERS.

MASTER COPIES OF THE FIRST PART OF A TWO-PART REPORT HAVE BEEN RECEIVED FROM THE A. D. LITTLE COMPANY ON THE RESULTS OF TESTING FILTER MEDIA FOR HALOGEN REMOVAL.

SAMPLE FILTER TRAINS HAVE BEEN IN B AREA FOR OVER FIVE MONTHS AND F AREA FOR THREE MONTHS. THE PRESSURE DROP ACROSS ROUGHING FILTERS HAS BEEN NEGLIGIBLE. THE DROP ACROSS THE HIGH EFFICIENCY FILTERS INDICATES A FILTER LIFE OF TWO YEARS.

CAI-816, NEW PRODUCTION REACTOR - DETAILED DESIGN IS 46% COMPLETE AND ON SCHEDULE.

FEDERAL POWER COMMISSION: THE FPC REPORT ON CONVERSION OF THE REACTOR TO POWER PRODUCTION WAS TRANSMITTED TO THE WASHINGTON OFFICE. THE UNCLASSIFIED PORTION WAS RELEASED TO THE PUBLIC. CLARIFICATION OF CERTAIN ITEMS IN THE REPORT HAS ALSO BEEN SUBMITTED. IN PORTLAND, OREGON, ON MARCH 16, MESSRS. J. E. TRAVIS, I. L. LIND, AND M. H. ARNDT PRESENTED A REPORT TO THE NORTHWEST UTILITIES CONFERENCE COMMITTEE GIVING RESULTS OF THE RECENT FPC REPORT ON THE ECONOMICS OF NPR CONVERSION. AEC PARTICIPATION WAS LIMITED TO REACTOR AND POWER PLANT CHARACTERISTICS AND COSTS.

RESEARCH AND DEVELOPMENT: HEAT TRANSFER APPARATUS AT THE 189-D LABORATORY HAS BEEN MODIFIED TO PROVIDE A LOOP TO DETERMINE HIGH TEMPERATURE HEAT TRANSFER AND TRANSIENTS.

THE CORPS OF ENGINEERS IS PERFORMING TESTS ON HIGH DENSITY CONCRETE TO BE USED FOR INLET AND OUTLET BIOLOGICAL SHIELDS. THIS CONCRETE, WHICH CONTAINS IRON AND SERPENTINE (MINERAL OF HYDROUS MAGNESIUM SILICATE) AGGREGATE, MUST HAVE SATISFACTORY SHIELDING AND STRUCTURAL PROPERTIES WHEN EXPOSED TO TEMPERATURES AS HIGH AS 575°F. COMPLETION AND RESULTS ARE EXPECTED IN ABOUT THREE MONTHS.

TWO METHODS FOR DETECTION AND MEASUREMENT OF NEUTRON FLUX DISTRIBUTION AND LEVELS IN THE REACTOR CORE ARE UNDER DEVELOPMENT. ONE SYSTEM USES A GAMMA SENSITIVE CHAMBER AND THE OTHER A NEUTRON SENSITIVE DETECTOR. MATERIALS FOR THE DETECTORS THAT WILL WITHSTAND THE REACTOR NEUTRON FLUX ARE BEING INVESTIGATED.

AN ENGINEERING CONTRACT HAS BEEN GIVEN TO THE ELECTRIC BOAT DIVISION TO MAKE STRESS ANALYSES OF THE NPR PIPING. PHASE I COVERS AN ANALYSIS OF CRITICAL POINTS AND SUPPORT LOCATIONS IN THE PRIMARY PIPING. PHASE II IS A COMPLETE OVER-ALL REVIEW TO DETERMINE STRESS AND VIBRATION, AND PHASE III IS AN OPTIONAL EARTHQUAKE ANALYSIS.

CRITERIA HAVE BEEN CHANGED FOR VENTING THE HEAT EXCHANGER BUILDING. UNDER THE NEW CRITERIA, THE VENTING SYSTEMS FOR BOTH THE HEAT EXCHANGER (109) BUILDING AND REACTOR (105) BUILDING SYSTEMS HAVE BEEN INTEGRATED INTO A MORE EFFECTIVE SYSTEM FOR ROUTING RELEASED STEAM. UNDER THE NEW CRITERIA, FEWER BUTTERFLY VALVES WILL BE REQUIRED IN THE VENTS. ANOTHER DESIGN CHANGE INVOLVES THE SUBSTITUTION OF A HINGED FLAPPER CLOSURE, WITH A CALIBRATED RESTRAINING LATCH, FOR THE RUPTURE DISK PROVIDED FOR RELEASE OF OVER PRESSURE. BACKUP FOR THE BUTTERFLY VALVES ALSO IS UNDER CONSIDERATION.

PROJECT AUTHORIZATIONS: A REVISED PROPOSAL WAS APPROVED FOR ALLOCATION OF ADDITIONAL PROJECT FUNDS TO A NEW TOTAL OF \$110,000,000.

PLANT ACQUISITION AND CONSTRUCTION (CONT'D)

PROJECT AND DESIGN STUDIES (CONT'D)

CGC-854, CONVERSION OF PUREX PU ANION EXCHANGE UNIT - A DIRECTIVE HAS BEEN ISSUED FOR \$95,500 AUTHORIZING ADDITIONAL SCOPE TO COVER A NEW STAINLESS STEEL EXHAUST STACK AND EXHAUST FAN.

CAH-870, FACILITIES FOR RECOVERY OF RADIOACTIVE MATERIALS - A REVISED PROPOSAL COVERING CONSTRUCTION HAS BEEN APPROVED. THE TITLE OF THE PROJECT WAS CHANGED FROM THE PREVIOUS "FACILITIES FOR RECOVERY OF RADIOACTIVE CERIUM" TO THAT SHOWN ABOVE. DETAILED DESIGN HAS BEEN COMPLETED, AND A BID PACKAGE IS UNDER PREPARATION.

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PLANT ACQUISITION AND CONSTRUCTION (CONT'D)

PLANT CONSTRUCTION

MAJOR CONSTRUCTION - THE STATUS OF MAJOR CONSTRUCTION IS INDICATED BELOW:

MAJOR PROJECTS							
PROJECT	PROJECT PROPOSAL NUMBER	CONSTRUCTION				DESIGN	PRESENT
		ACTUAL STARTING DATE	SCHED. COMPL. DATE	COMPLETION		%	WORKING
				%	%	ACTUAL	ESTIMATE
				SCHED.	ACTUAL	COMPL.	(THOUSANDS)
PRTR	AEC-167	3-6-58	8-30-60	90	82	100	\$ 12,750
RMC BUTTON LINE, 234-5	CG-734	2-18-58	7-15-60	92	89	100	1,845
PU FAB. PILOT PLANT	CA-747	3-6-58	11-1-60	86	88	100	4,230
MET. DEV. FAC., 306							
BLDG. ADDITION	CA-744	3-20-59	9-1-60	66	66	100	2,685
REACTOR CONFINEMENT	CGI-791	3-31-59	1-1-61	41	37	90	6,380
306 BLDG. PILOT PLANT							
MODIFICATION	CGF-810	1-29-59	3-15-60	100	100	100	755
CRITICAL MASS LAB.	CG-731	6-4-59	6-30-60	87	78	100	1,000
ADD'L PU. FAB. FAC.							
234-5 BLDG.	CGC-811	8-24-59	7-1-61	30	21	95	3,500
NEW PROD. REACTOR	CAI-816	5-1-59	10-1-62	1.6	0.7	46	145,000
NEW FUEL CLAD. FAC.	CAF-847	7-27-59	12-31-60 ^{1/}	15	15	27	3,600

^{1/} BASED ON PRELIMINARY CONSTRUCTION SCHEDULE PREPARED AND APPROVED ON JANUARY 15, 1960.

CONTRACT AT(45-1)-1410, PROJECT AEC-167, PRTR, SHAW & ESTES

PHASE III - THE THERMAL SHIELD BLOCKS WERE SET IN PLACE AND THE RING HEADERS INSTALLED.

THE TOP AND BOTTOM STATIONARY SHIELDS ALONG WITH THE ROTATING SHIELDS AND STEP PLUGS WERE TESTED, PACKED WITH HEAVY AGGREGATE, AND PUMPED WITH GROUT.

POSITIONING OF THE BOTTOM PRIMARY SHIELD, EP PR-122 IN THE CORE OF THE REACTOR WAS COMPLETED.

THE TOP PRIMARY SHIELD, EP PR-121, WAS DELIVERED TO THE CONTRACTOR ON MARCH 31, 1960.

THE CALANDRIA WAS DELIVERED TO THE CONTRACTOR AND IS NOW IN THE CONTAINMENT VESSEL ON THE 0th - 0th LEVEL.

CONTRACT AT(45-1)-1483, PROJECT CGI-791, REACTOR CONFINEMENT, R. B. MILES CONSTRUCTION CO.

PHASE II-B:

100-B - THE SETTING OF FORMS AND REINFORCING STEEL FOR THE FIRST-WALL PLACEMENT WAS STARTED.

100-C - THE FIRST-WALL LIFT WAS PLACED ON MARCH 21, 1960.

100-D - PLACEMENT OF THE FOUNDATION SLAB WAS MADE ON MARCH 25, 1960.

100-DR - ON MARCH 14, 1960, THE CONCRETE WAS PLACED IN THE FOUNDATION SLAB.

100-F - THE CONTRACTOR HAS RECEIVED THE FILTER FRAME INSERTS FROM HIS FABRICATOR. THE SECOND-WALL LIFT WAS PLACED AND SANDBLASTING AND SACKING OF THE PLACEMENT HAS BEEN COMPLETED.

100-H - PLACEMENT OF THE FIRST AND SECOND-WALL LIFTS WAS COMPLETED.

100-KE - EXCAVATION FOR THE FILTER BUILDING WAS COMPLETED AND ERECTION OF FORMS AND REINFORCING STEEL FOR THE FOUNDATION SLAB WAS STARTED.

100-KW - EXCAVATION FOR THE FILTER BUILDING IS IN PROGRESS.

PLANT ACQUISITION AND CONSTRUCTION (CONT'D)

PLANT CONSTRUCTION (CONT'D)

CONTRACT AT(45-1)-1491, PROJECT CGC-811, INSPECTION FACILITY, 234-S BUILDING, W. G. CLARK CONSTRUCTION COMPANY - DEMOLITION WORK IN THE EXISTING BUILDING IS NOW COMPLETE.

CONTRACT AT(45-1)-1455, PROJECT CAI-816, NEW PRODUCTION REACTOR, KAISER ENGINEERS.

JENSEN-RASMUSSEN AND B-E-C-K (SC-13) - THE BASE SLAB FOR THE 181-N BUILDING WAS PLACED ON MARCH 4, 1960; 2,286 CUBIC YARDS WERE REQUIRED IN THIS CONTINUOUS PLACEMENT.

BY MARCH 29, 1960, THE PLACEMENT OF CONCRETE IN PIERS AND WALLS HAD BEEN COMPLETED TO ELEVATION 370'. ON MARCH 31, 1960, THE PLACEMENT OF CONCRETE IN WALLS AND PIERS TO ELEVATION 384' WAS STARTED.

IT IS CONTEMPLATED THAT ELEVATION 415', WHICH IS THE HIGH WATER ELEVATION, WILL BE REACHED BEFORE THE SPRING RUN-OFF OCCURS.

THE TULLAR POWER CONSTRUCTION COMPANY COMPLETED INSTALLATION OF THE TELEPHONE CABLE FROM KCB EXCHANGE TO N-AREA ON MARCH 4, 1960.

THE BUILDING NO. FOR THE 190-N HEAT EXCHANGER BUILDING WAS CHANGED TO 109-N.

MOVING OF THE 1101 BUILDING TO 100-N AREA, WHERE IT WILL BE USED AS A TEMPORARY ADMINISTRATION BUILDING, WAS COMPLETED ON MARCH 11, 1960, UNDER SUBCONTRACT SC-11, GEORGE A. GRANT, INC.

SOUND CONSTRUCTION AND ENGINEERING COMPANY (SC-16) STARTED EXCAVATION FOR THE 105 AND 109-N BUILDINGS ON MARCH 21, 1960.

THE CENTRAL MIXING PLANT AND ACCOMPANYING FACILITIES WERE TRANSFERRED TO KAISER ENGINEERS ON MARCH 21, 1960 AND WERE RELEASED BY KAISER TO CURTIS CONSTRUCTION COMPANY (SC-17) FOR THE MIXING AND DELIVERY OF CONCRETE ON THE SAME DAY.

THE NPR INFORMATION CENTER AT HANFORD OPERATIONS OFFICE WAS VISITED BY MORE THAN 100 OFF-SITE AND PROJECT PERSONNEL DURING MARCH. ONE OF THE LARGEST GROUPS WAS FROM THE PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE. THIS GROUP OF TWELVE USED THE NPR CENTER AS A MEETING PLACE DURING A ONE-DAY STUDY OF ATOMIC POWER FEASIBILITY.

PROCUREMENT

THE ATOMIC ENERGY COMMISSION APPROVED 24 AWARDS MADE BY GENERAL ELECTRIC COMPANY IN THE TOTAL AMOUNT OF \$603,255.92.

TEN AWARDS MADE BY KAISER ENGINEERS WERE APPROVED BY AEC IN THE AMOUNT OF \$1,970,428.58.

THE ATOMIC ENERGY COMMISSION PLACED 412 PURCHASE ORDERS FOR THE TOTAL AMOUNT OF \$623,900.85.

PROCUREMENT ACTIONS - PROJECT CAI-816

SIX HUNDRED AND FIFTY PURCHASE ORDERS HAVE BEEN PLACED THROUGH APRIL 1, 1960, WITH A TOTAL VALUE OF \$14,412,000.

ONE HUNDRED EIGHTEEN PURCHASE ORDERS WERE PLACED FROM FEBRUARY 29, 1960, THROUGH APRIL 4, 1960, FOR A TOTAL VALUE OF \$2,183,034.

THIRTY-NINE REQUISITIONS ARE OUT FOR BID WITH AN ESTIMATED VALUE OF \$9,445,000.

SOME OF THE LARGER PROCUREMENT ACTIONS ON PROJECT CAI-816 ARE LISTED BELOW:

1. BIDS WERE OPENED ON MARCH 28, 1960, BY THE GENERAL ELECTRIC COMPANY, FOR 800 NPR ZIRCALOY-2 PROCESS TUBES (105-N BUILDING).

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PLANT ACQUISITION AND CONSTRUCTION (CONT'D)

PROCUREMENT (CONT'D)

2. AN ORDER WAS PLACED WITH BETHLEHEM STEEL IN THE AMOUNT OF \$84,353 FOR 580 TONS OF STEEL PLATE TO BE USED ON NPR.
3. AN ORDER WAS PLACED WITH PACIFIC COAST ENGINEERING COMPANY FOR THE PURCHASE OF A GANTRY CRANE TO BE INSTALLED AT 181-N, IN THE AMOUNT OF \$115,050.
4. AN ORDER WAS PLACED ON MARCH 25, 1960, FOR DRIVE TURBINES AND PONY MOTORS WITH THE ELLIOT COMPANY, IN THE AMOUNT OF \$1,092,500.
5. AN ORDER FOR CIRCULATION WATER PUMP MOTORS WITH FAIRBANKS, MORSE AND COMPANY WAS PLACED ON MARCH 25, 1960, IN THE AMOUNT OF \$407,331.
6. AN ORDER FOR A SURFACE CONDENSER WAS PLACED WITH WORTHINGTON CORPORATION, HARRISON, NEW JERSEY, ON MARCH 28, 1960, IN THE AMOUNT OF \$94,385.
7. AN ORDER FOR A 230-KV SUBSTATION AND OIL CIRCUIT BREAKER WAS PLACED ON MARCH 11, 1960, WITH ALLIS CHALMERS MANUFACTURING COMPANY, IN THE AMOUNT OF \$113,400.
8. LIFT STATION PUMPS WERE PURCHASED FROM FAIRBANKS, MORSE AND COMPANY, PORTLAND, OREGON, IN THE AMOUNT OF \$25,514, ON MARCH 16, 1960.
9. BIOLOGICAL SHIELD PLATES WERE PURCHASED FROM BETHLEHEM STEEL ON MARCH 4, 1960, IN THE AMOUNT OF \$84,353.

CONTRACTS

THREE CONTRACTS WERE AWARDED BY THE ATOMIC ENERGY COMMISSION DURING MARCH WITH A COMBINED VALUE OF \$62,763.60.

THE FOLLOWING MAJOR SUBCONTRACTS WERE AWARDED BY KAISER ENGINEERS DURING THE MONTH OF MARCH.

1. SC-14 - 184-N STEAM GENERATOR AND ACCESSORIES, FOSTER WHEELER CORPORATION, \$546,700.
2. SC-15 - 184-N TURBINE GENERATOR AND ACCESSORIES, GENERAL ELECTRIC COMPANY, \$897,000.
3. SC-16 - EXCAVATION TO 22' 0", 190-N BUILDING AND 105-N BUILDING, EXCAVATION AND SUBSTRUCTURE, SOUND CONSTRUCTION AND ENGINEERING, \$1,694,719.
4. SC-17 - BATCH PLANT OPERATION, CURTIS CONSTRUCTION COMPANY, \$683,380.
5. SC-21 - T-C AREA LIGHTING AND REVISION TO 13.8 KV LINE, DUKE'S ELECTRIC COMPANY, \$19,550.

AIR MAIL

TO: Director, Division of Production
USAEC, Washington, D. C.

FROM: J. E. Travis, Manager, Hanford Operations
Office, USAEC, Richland, Washington

SUBJECT: MONTHLY STATUS AND PROGRESS REPORT

SYMBOL: B:RHL

APR 13 1960

Enclosed herewith is Part II ("Official Use Only" portion) of subject report for the month of March 1960. The "Secret" portion, Part I, is forwarded as a separate report.

Enclosure:
Monthly Status and Progress Report, Part II

DISTRIBUTION:

- 10 Copies - Addressee
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AIR MAIL

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U. S. ATOMIC ENERGY COMMISSION
HANFORD OPERATIONS OFFICE

MONTHLY STATUS AND PROGRESS REPORT

MARCH 1960

PART II

RECEIVED
MAR 10 1960
U. S. ATOMIC ENERGY COMMISSION
HANFORD OPERATIONS OFFICE

[REDACTED]

MONTHLY STATUS AND PROGRESS REPORT
HANFORD OPERATIONS OFFICE

MARCH 1960

PART II

C O N T E N T S

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<u>PERSONNEL (ON-SITE)</u>	4

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COMMUNITY OPERATIONS

GOVERNMENT HOUSING:

THE FOLLOWING ARE HOUSING STATISTICS FOR MARCH 1960:

	MARCH 1	MARCH 31
A. TOTAL HOUSES AVAILABLE FOR OCCUPANCY	3	3
1. TOTAL HOUSES OCCUPIED	1	1
2. TOTAL HOUSES UNOCCUPIED	2	2
(A TOTAL OF 3,787 SINGLE HOUSES AND 1,017 DUPLEXES SOLD - 5,324 UNITS.)		
B. TOTAL APARTMENTS AVAILABLE FOR OCCUPANCY	134	134
1. TOTAL APARTMENTS OCCUPIED	134	133
2. TOTAL APARTMENTS UNOCCUPIED	0	1
C. THERE ARE THREE DORMITORIES NOW IN OPERATION BY A COMMERCIAL OPERATOR.		

PRIVATE HOUSING UNITS (WHERRY ACT):

	COLUMBIA HEIGHTS		SPOKANE HOUSING		TOTAL UNITS
	HOUSES	APTS.	HOUSES	APTS.	
TOTAL UNITS	280	220	400	100	1,000
RENTED	167	107	395	91	760
VACANT	113	113	5	9	240

DISPOSAL:

THE NAMES OF THE SUCCESSFUL PRIORITY HOLDERS ON THE LAST TWO UNSOLD HOUSES - AN "H" HOUSE AND AN "A" DUPLEX - WERE POSTED ON MARCH 7, 1960. THREE APPEALS WERE RECEIVED ON THE AWARD OF THE "H" HOUSE AND AN APPEAL'S BOARD HEARING HAS BEEN SET FOR APRIL 12.

HHFA OPENED BIDS ON 91 VACANT RESIDENTIAL, COMMERCIAL AND INDUSTRIAL PROPERTIES; BIDS WERE RECEIVED ON 18 PROPERTIES.

LOCAL HHFA REPRESENTATIVES ADVISED HOD THAT HHFA WASHINGTON HEADQUARTERS IS ABOUT TO CLOSE ON A CONTRACT WITH A SEATTLE FIRM FOR STUDY OF THE METHODS OF DISPOSAL OF COMMERCIAL BLOCK 732.

THE REPORT OF SALES FOR THE MONTH ENDING MARCH 31, 1960 IS AS FOLLOWS:

	TOTAL INVENTORY	SALES CLOSED		UNSOLD	GOOD FAITH DEPOSITS
		PAST MONTH	TOTAL		
<u>PRIORITY PROPERTIES</u>					
SINGLE HOUSES	3,788	0	3,787	1	0
DUPLEX HOUSES	1,018	0	1,017	1	1
COMMERCIALS	127	7	55	72	15
CHURCHES	6	0	6	0	0
NON-PROFITS	7	0	3	4	0
RESIDENTIAL LOTS	97	0	97	0	0
DORMITORY SITES	0	0	0	0	0
WHERRY SITES	1	0	0	1	0
<u>BID PROPERTIES</u>					
APARTMENTS	17	0	0	17	0
RESIDENTIAL LOTS	108	4	63	45	2
RESIDENTIAL TRACTS	87	0	64	23	8
COMMERCIALS	24	1	6	18	0
INDUSTRIALS	42	1	20	22	1
FLOOD PLAINS	39	4	36	3	0
TOTAL	5,361	17	5,154	207	27

[REDACTED]

COMMUNITY OPERATIONS (CONT'D)

MUNICIPAL:

THE CITY AND SCHOOL BOARD ELECTIONS WERE HELD ON MARCH 8, 1960. KELLY, ROBERTSON, BRACKENBUSH AND MCKEE WERE ELECTED AS COUNCILMEN. ROBERTSON AND MCKEE REPLACE COON AND STREET. THE CHARTER AMENDMENT WAS DEFEATED. DIETRICH AND WOOD WERE REELECTED TO THE SCHOOL BOARD.

A CHECK IN THE AMOUNT OF \$24,500 WAS SENT TO THE CITY AS PART PAYMENT ON PENSION FUND COSTS FOR PAST SERVICE CREDITS.

SCHOOLS:

GROVER DAWSON WAS ELECTED PRESIDENT OF RICHLAND SCHOOL DISTRICT #400.

COMMERCIALS:

HOO WAS ADVISED THAT THE DEPARTMENT OF JUSTICE IN WASHINGTON HAS NOT YET FILED ITS BRIEF WITH THE NINTH CIRCUIT COURT OF APPEALS IN THE CHARLES WELLS CASE, WHICH MEANS NO RULING CAN BE EXPECTED BEFORE FALL.

ADRIAN PHIPPS, LAUGHRY AND HOUSTON OPENED THEIR RESTAURANT IN THE AMERICAN LEGION BUILDING ON MARCH 25, 1960.

HOUSTON, HIGGINS AND HENDERSON OPENED THEIR NEW 24-LANE BOWLING ALLEY ON WELLSTAN WAY, ON A 24-HOUR BASIS, ON MARCH 25, 1960.

MISCELLANEOUS:

REPRESENTATIVES OF LOS ALAMOS PLANNING COMMITTEE'S VARIOUS TASK GROUPS ON RECREATION AND CULTURAL FACILITIES, HOSPITAL AND MEDICAL OPERATION, RESIDENTIAL PROPERTIES, SCHOOLS AND GOVERNMENTAL STUDIES RELATING TO A POSSIBLE DISPOSAL PROGRAM VISITED HOO DURING THE MONTH. ALSO, A REPRESENTATIVE AND PHOTOGRAPHER OF THE PLANT NEWSPAPER PUT OUT BY THE UNIVERSITY OF CALIFORNIA LABORATORIES AT LOS ALAMOS INTERVIEWED A NUMBER OF RICHLAND RESIDENTS REGARDING THEIR ATTITUDE TO OUR DISPOSAL PROGRAM.

REAL ESTATE

THE POST OFFICE DEPARTMENT ACCEPTED THE RICHLAND POST OFFICE BUILDING AT 4:30 P.M. ON MARCH 2, 1960.

A MEETING WAS HELD BETWEEN REPRESENTATIVES OF HOO AND THE BENTON PORT DISTRICT COMMISSIONERS, AND THEIR ATTORNEY, TO DISCUSS TRANSFER OF PARCEL 29 TO THE PORT DISTRICT, WHICH ADJOINS THE AEC AIRPORT. RESPECTIVE ATTORNEYS OF HOO AND THE PORT DISTRICT WILL DRAFT THE NECESSARY AGREEMENT DOCUMENTS.

THE 20-ACRE CEMETERY RESERVE SITE WAS TRANSFERRED TO THE RICHLAND CEMETERY ASSOCIATION.

A MEETING WAS HELD WITH REPRESENTATIVES OF AEC, POST OFFICE DEPARTMENT AND GENERAL SERVICES ADMINISTRATION REGARDING A NEW FEDERAL OFFICE BUILDING TO BE BUILT IN RICHLAND BY GSA. THE LOCATION OF THE BUILDING ON APPROXIMATELY THE EXISTING 703 BUILDING SITE WAS AGREED UPON.

PERSONNEL (ON-SITE)

	<u>MARCH 1</u>	<u>MARCH 31</u>
ATOMIC ENERGY COMMISSION	284	286
GENERAL ELECTRIC COMPANY	7,778	7,784
TOTAL CONSTRUCTION PERSONNEL	<u>987</u>	<u>1,071</u>
TOTAL PROJECT PERSONNEL	<u>9,049</u>	<u>9,141</u>

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**DATE
FILMED
9/01/92**