[redacted]

MANHATTAN DISTRICT HISTORY
BOOK IV - PILE PROJECT
X-10
VOLUME 6 - OPERATION
APPENDIX B, C, D, & E

[redacted]

SECRET

MANHATTAN DISTRICT HISTORY
BOOK IV - PILE PROJECT
X-10
VOLUME 6 - OPERATION
APPENDIX B, C, D, & E

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MANHATTAN DISTRICT HISTORY

BOOK IV - X10 PROJECT

VOLUME 6 - OPERATION

APPENDIX B

CHARTS AND TABULATIONS

No.	Description
1	Conditions for Inserting Safety Rods
2	Hanford Engineer Works Safety Record
3	Nursery School Attendance
4	Tabulation of Commercial Operators
5	Richland Village Data
6	Tabulation of Operating Costs Through December 1946
7	Graph Hanford Engineer Works Operating Costs January 1944 to December 1946 - Monthly and Accumulated
8	Hanford Engineer Works Organization Charts - Area Engineer (1 July 1945)
9	Hanford Engineer Works Organization Charts - Area Engineer (3 October 1946)
10	Hanford Engineer Works Organization Charts - Contractor (du Pont - 1 July 1945)
11	Hanford Engineer Works Organization Charts - Contractor (du Pont - 1 May 1946)
12	Hanford Engineer Works Organization Charts - Contractor (General Electric - 1 November 1946)
13	Status of Special Request Samples as of 31 December 1946
14	Samples of Security Education for Personnel

[redacted]

CONDITIONS FOR INSERTING SAFETY RODS

No. 1 Safety Circuit

The following events which actuate the No. 1 safety circuit are:

1. Low water pressure on either unchilled riser.
2. Low water pressure on either chilled riser.
3. High power level (discharge water activity) indicated by the ion chamber with No. 1 Beckman.
4. High power level (neutron density) indicated by the ion chamber with No. 2 Beckman.
5. High power level (neutron density) indicated by the ion chamber with No. 3 Beckman.
6. High power level (neutron density) indicated by ion chamber with No. 4 Beckman.
7. Electric power failure at the process pump building.
8. Depression of a manual push button at the control desk.

No. 2 Safety Circuit

A second safety circuit has been incorporated in the instrumentation of the Pile control to allow the unit to be shut down by the shim rods alone. It was expected that minor abnormal disturbances, not sufficiently important to justify the insertion of the vertical safety rods, would cause the No. 2 safety circuit to operate. Experience has shown that only those circumstances which cause the No. 1 circuit to trip are sufficiently urgent to justify the shutdown of the Pile. Therefore the No. 2 circuit can be tripped only with the control desk push-button. (See Vol. 3).

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HANFORD ENGINEER WORKS
SAFETY RECORD

Period	Man-Hours	Frequency	Severity	No. Lost-Time Accidents	No. Days Lost
Dec. 1943 - July 1945	18,284,126	1.23	0.08	15	415
July 1945 - Dec. 1945	4,681,211	0.62	1.28	3•	6143••
Jan. 1946 - Dec. 1946	8,766,697	0.34	0.01	3	122
TOTAL (Dec. 1943 - Dec. 1946)	28,902,042	0.61	0.26	21•	6678••

• Includes 1 fatality

•• Includes 6000 day penalty for fatality

[redacted]

(1) 1946 Safety Record - 236 days in which there were no lost-time injuries.

(a) Frequency rate: 0.34; 1945: 0.93

(b) Severity rate: 0.017; 1945: 0.54

(c) 3 lost-time injuries; 1 each in 200-W, 200-E, and 700 Areas.

(1) All injuries on day shift.

(2) Types of injuries: 1 fractured arm
1 acid burn, H.F.
1 infected blister

(d) Temporary-partial injuries

(1) All injuries on day shift; 52% in first part of work shift.

(2) Types of injuries: fractures - 53%
contusions - 9%
punctures - 4%

(a) Hands and arms - 54%

(b) Toes and feet - 37%

(e) Minor injuries

(1) 56% were lacerations or abrasions.

(f) Responsibility for lost-time and temporary-partial injuries:

(1) Insufficient supervision 42%
(2) Insufficient safety morale 39%
(3) Machinery & Equipment 7%
(4) Safety device not provided 5%
(5) Physical deficiency of employee . . 3%
(6) Incorrect type of safety device . . 2%
(7) Methods of process 1%
(8) Housekeeping 1%

In all, 93% of all lost-time and temporary-partial injuries chargeable to human element.

(g) Four (4) departments without injury during year.

[redacted]

[redacted]

SCHOOLS - NURSERY

MONTH	TOTAL ATTENDANCE	NO. ENROLLED	AVERAGE ATTENDAN
September 1944	576	32	18
October	752	35	25
November	910	35	26
December	706	37	19
January 1945	950	36	25
February	1782	54	35
March	2652	68	39
April	2769	71	39
May	3572	76	47
June	4626	89	53
July	2640	60	44
August	2788	68	41
September 1945	4860	90	54
October	6144	96	64
November	4620	84	55
December	4641	91	51
January 1946	5046	87	58
February	5100	85	60
March	4536	81	56
April	5187	91	57
May	3648	64	57
June	3120	78	40
July	1800	60	30
August	1680	56	30
September	5115	93	55
October	5590	86	65
November	5022	81	62
December	4212	78	54
Total	96,050	1962	1254
Average per month	8,395	70	46

[redacted]

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TABULATION OF COMMERCIAL OPERATORS

NAME OF FACILITY	CONTRACT AWARDED TO	OPERATING FIRM NAME
Food Store "A"	H. E. Garmo	Garmo's
Food Store "B"	Randall & Doyle	Groceteria
Food Store "C"	Safeway Stores, Inc.	Safeway Stores, Inc.
Food Store "D"	Gerritsen & Herring	Village Food Store
Food Store "E"	T. Kitchell & Fred Campbell	Campbell's
Drug Store "A"	L. M. Castleberry	The Drug Center
Drug Store "B"	C. W. Olberg & M. S. Morgan	Penny-Wise Drug Store
Drug Store "C"	C. W. Olberg & M. S. Morgan	Richland Thrifty Drug
Bank	Seattle First Nat. Bank	Seattle First Nat. Bank
Service Station No. 1	Tidewater-Associated Oil Co.	Tidewater-Associated Oil Co.
Service Station No. 2	Standard Oil Company	Standard Oil Company
Service Station No. 3	True's Oil Company	True's Oil Company
Barber Shop	C. E. Gansel	Gansel's Barber Shop
Beauty Shop	K. C. Siler	Richland Beauty Salon
Recreation Building	L. C. Foisey	Recreation Center
Hardware	Richland Supply Company	Richland Supply Company
Variety	Diamond's 5¢ to $1.00	Diamond's 5¢ to $1.00
Women's Apparel	Rodney Cox	The Style Center
Men's Apparel	Klopfenstein's, Inc.	Men's Apparel Shop
Shoe Store	B. J. Saad & S. S. Freeman	Richland Shoe Salon
Shoe Repair Shop	Mickey's Shoe Renewing	Mickey's Shoe Renewing
Theater No. 1	Mid-State Amusement Co.	Richland Theater
Theater No. 2	Mid-State Amusement Co.	Village Theater

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Optical Shop	Binyon Optical Company	Optical Shop
Electrical Shop	Bergquist & Wilson	Richland Electric Shop
General Merchandise Store	C. C. Anderson's Stores, Inc.	C. C. Anderson's Stores, Inc.
Cafeteria	Progressive Cafeteria's	Cafeteria
Transient Quarters-Hotel	Progressive Cafeteria's	Transient Quarters
Laundry	Richland Laundry	Richland Laundry
Milk Depot	Carnation Company	Carnation Company
Garage	Simons & Jewell	Richland Motor Co.
Express Office	American Railway Express	American Railway Express
Western Union	Western Union	Western Union
County-State License Office		Sub-Office, County Auditor
Bus Depot	Motor Coach Lunch Inc.	Motor Coach Lunch Room
Postoffice	U. S. Postoffice Dept.	U. S. Postoffice Dept.
Ration Office-89X	O. P. A.	Ration Board
Childs Nursery-98X		Childs Nursery
Robley L. Johnson Studio	Robley L. Johnson	Robley L. Johnson Studio
Riding Academy	F. H. Moller	Riverside Stables

[redacted]

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RICHLAND VILLAGE DATA

I. HOUSING DATA:

	No. Units	No. Bedrooms	Type	Unit Cost*	Monthly Rent (Includes Utilities) Unfurnished	Furnished
Regular						
A	816	3	2 Story-Duplex	$3,950.00	$37.50	$47.00
B	1040	2	1 Story-Duplex	3,770.00	33.50	42.00
D	8	4	2 Story-Single	6,025.00	67.50	84.50
E	84	3	1 Story-Single	5,325.00	62.50	78.00
F	250	3	2 Story-Single	4,820.00	50.00	62.50
G	8	4	2 Story-Single	6,030.00	67.50	84.50
H	250	3	1 Story-Single	4,700.00	50.00	62.50
L	44	4	2 Story-Single	6,580.00	62.50	80.00
Sub-Total	2500					

* Includes only modifications and revisions which have been approved and processed as of 27 March 1945. These unit costs probably will be revised upward by a few dollars when final costs are determined.

B-5

[redacted]

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HOUSING DATA (Continued)

Prefabs	No. Units	No. Bedrooms	Type	Unit Cost*	Monthly Rent (Includes Utilities) Furnished
A	402	1	1 Story-Single	$2,199.00	$27.50
B	802**	2	1 Story-Single	3,088.00	35.00
C	600	3	1 Story-Single	3,895.00	42.50
Sub-Total	1804***				
Grand Total	4304***				

II. DORMITORIES:

	No. of Buildings	Total No. of Beds
Men's Dormitories	8	304
Women's Dormitories	17	682
TOTAL	25	986

Monthly rental rates for dormitory rooms:

$15.00 - Half of double inside room $20.00 - Half of double corner room

$17.50 - Single inside room $22.50 - Single corner room

III. CHURCHES

New Buildings 2

Existing church buildings in use.....1

Grange Hall remodeled for church use.....1

Religious denominations using school buildings...7

** Includes one house which was destroyed by fire after acceptance for payment, but before acceptance for occupancy.

*** Includes 252 1-bedroom, 137 2-bedroom, and 85 3-bedroom prefabricated houses declared surplus and shipped to Pacific Northwest colleges and universities as well as Los Alamos and Sandia.

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IV. SCHOOLS:

Grade Schools ✓	4 (3 new - 1 existing) ✓
High School ✓	1 (new) ✓
Nursery ✓	1 (existing - remodeled) ✓

V. CEMETERY:

Cemetery	1 (existing)

VI. PUBLIC SERVICES AND FACILITIES:

Barber Shop	1
Beauty Salon	1
* Bus Depot	1
** Cafeteria	1
Dog Pound	1 (existing - remodeled)
*** Drug Stores	3
Electric - Radio Shop	1 (existing - remodeled)
Food Stores	5
Garage	1
General Merchandise Store	1
Hardware Store	1 (existing - remodeled)
Hospital	1
Hotel (Transient Quarters)	1
Laundry-Dry Cleaning	1
Library	1 (existing - remodeled)

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* Includes cafe and fountain service.

** Includes snack bar for lunches.

*** Includes fountain service and light lunches.

[redacted]

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PUBLIC SERVICES AND FACILITIES (Continued)

License Bureau	1 (existing - remodeled)
Medical - Dental Clinic	1
Men's Furnishings	1 (existing - remodeled)
Milk Depot	1
Newspaper	1 (existing - remodeled)
Optometrist	1 (existing - remodeled)
Photographic Studio	1 (existing - remodeled)
Railway Express	1
Ration Office	1 (existing - remodeled)
**** Recreation Building	1
Red Cross	1 (existing - remodeled)
Service Stations	3
Shoe Repair Shop	1
Shoe Store	1 (existing - remodeled)
Theaters	2
U. S. Employment Service	1
Variety Store	1
Western Union	1 (existing - remodeled)
Women's Apparel Shop	1
TOTAL	45

**** Includes cafe, fountain service, bowling, billiards, dance floor, tavern, and private party lounge rooms.

[redacted]

VII. TELEPHONES:

2395 Telephones on 1587 lines (varies)

87 Trunk lines to other exchanges

2 PBX Boards

12 Teletalks

3 Teletypes

18 Switchboard positions

VIII. POWER & LIGHT:

Power load, daily average (June '45), 7600 KW (high) 17,400 KW
design capacity, 20,000 KW

Power and light poles	2033
Street lights	410
Sub-stations	3
Wire, single	339 miles

IX. RAILROADS: (In Richland Village Only)

Railroad main line	3.7 miles
Railroad sidings	1.34 miles

X. IRRIGATION:

Irrigation ditch	1.33 miles
Irrigation pipe line	3.43 miles
Drainage ditch	3.77 miles

XI. FIRE PROTECTION:

Fire Stations	2
Fire Plugs	454
Fire Alarm Boxes	105

XII. POLICE PROTECTION:

24 hour patrol

Two way radio on prowl cars

XIII. OUTDOOR ATHLETIC FACILITIES:

Baseball diamonds	8
Football field	1
Playgrounds	9
Practice football field	1
Running track	1
Soft ball diamonds	11
Swimming pool	1 (existing)
Tennis courts	15
Volley ball courts	1
Wading pool	1

XIV. WATER SYSTEM:

Water Mains - 3 inches to 24 inches 48.3 miles

Gate valves on water system 391

Corporation cocks 1536

Water Towers (3) Capacity-100,000 gallons each

Water Wells - Number drilled 18

Water Wells - Number not used 1 (abandoned, wrong location)

Water Wells - Number in use 17

Water Wells - Well depths 32 ft. to 200 ft.

Water Wells - Well casing sizes 6 in. to 24 in.

WATER SYSTEM (Continued)

Water Wells - Volume, well flow = 50 to 2575 gals. per min. each

Gallons used daily (June average) = 4,580,000

high - 6,020,000

Total Water System	107 miles
Design capacity	30,000,000 gals. per day

XV. SEWERAGE:

Sewerage disposal plant (1)	Capacity - 1,000,000 gals. per day
Sewer mains	94.87 miles
Sewer man holes	478
Flush clean-outs	75

XVI. GENERAL MUNICIPAL DATA:

Bituminous surface parking compounds	275,000 square yards
Blacktop pads	1,400 square yards
Blacktop sidewalks	42.89 miles
City Area (2,355 acres)	3.68 square miles
Concrete pads	520 square yards
Concrete sidewalks	2.93 miles
Curbing	5.21 miles
Curb and gutter	4.45 miles
Streets	55.32 miles

[redacted]

HANFORD ENGINEER WORKS
OPERATING COSTS
THROUGH 31 DECEMBER 1946

	100 B	100 D	100 F	Fishery 100 Area	Total 100 Area	200 E	200 W	Building 231	Total 200 Area	Material Preparation 300 Area	Recovery 300 Area
Essential Materials	121,051.47	162,375.04	137,526.09		420,952.60	1,960,054.81	1,685,514.87		3,645,569.68	342,251.22	36,457.89
Supervision (Plant)	838,839.55	631,222.27	540,184.48	21,915.68	2,032,161.98	1,105,837.35	1,462,606.63	331,131.46	2,899,575.44	304,040.69	34,715.70
Operating Labor	1,367,956.86	1,430,275.70	1,215,903.74	36,318.67	4,050,454.97	2,748,896.75	3,272,108.63	625,281.30	6,646,286.68	911,270.83	71,600.89
Repair Labor	637,940.82	648,164.67	500,562.00	27,152.76	1,713,820.25	968,232.39	1,626,204.13	161,909.06	2,756,345.58	245,862.47	21,199.09
Maintenance Material	149,123.67	142,358.56	126,537.62	2,252.20	420,272.05	301,194.27	461,932.41	25,039.69	788,166.37	118,866.91	8,855.09
Operating Supplies	80,442.39	70,105.18	67,906.64	1,838.14	220,292.35	119,000.43	268,419.96	77,237.77	464,658.16	225,312.05	16,427.05
Technical Control	221,294.00	182,256.42	136,121.81		539,672.23	483,928.02	837,125.23	395,187.70	1,716,240.95	25,532.47	11,080.13
Technical Development	300,595.55	107,023.67	95,910.97		503,530.19	83,132.23	942,600.20	75,568.22	1,101,300.65	108,282.48	3,417.31
Power	8,838,262.61	8,989,584.47	7,211,025.77	16,755.02	25,055,627.87	1,783,965.83	2,720,618.37	164,530.38	4,669,114.58	288,146.49	46,022.34
Chemical Development						43,514.46	43,672.19		87,186.65	32,367.09	
Project 1553										1,019,458.54	
Extrusion Cost										490,698.55	
100 Technical Development Program											
TOTAL OPERATION COST	12,555,506.92	12,263,365.98	10,031,679.12	106,232.47	34,956,784.49	9,597,756.54	13,320,802.62	1,855,885.58	24,774,444.74	4,112,089.79	249,775.49

NOTE: Proration of Government and Contractor's overhead has been made on a dollar basis.

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HANFORD ENGINEER WORKS
OPERATING COSTS
THROUGH 31 DECEMBER 1946

100 F	Fishery 100 Area	Total 100 Area	200 E	200 W	Building 231	Total 200 Area	Material Preparation 300 Area	Recovery 300 Area	Chip Recovery 300 Area	Process #1 300 Area	Process #3 300 Area	Total 300 Area	Total Plant Cost
137,526.09		420,952.60	1,960,054.81	1,685,514.87		3,645,869.68	342,251.22	36,457.89		1,752,378.81		2,131,087.92	6,197,610.20
540,184.48	21,915.68	2,032,161.98	1,105,837.35	1,462,606.63	331,131.46	2,899,575.44	304,040.69	34,715.70	12,784.17	615,890.71	8,322.83	975,754.10	5,907,491.52
215,903.74	36,318.67	4,050,454.97	2,748,896.75	3,272,108.63	625,281.30	6,646,286.68	911,270.83	71,600.89	26,684.01	2,081,338.58	19,334.59	3,110,228.90	13,806,970.55
500,562.00	27,152.76	1,713,820.25	968,232.39	1,626,204.13	161,909.06	2,756,345.58	245,862.47	21,193.09	9,833.65	704,852.06	3,010.58	984,757.85	5,454,923.68
126,537.62	2,252.20	420,272.05	301,194.27	461,932.41	25,039.69	788,166.37	118,866.91	8,855.09	2,037.11	270,311.66	462.11	400,532.88	1,608,971.30
67,906.64	1,838.14	220,292.35	119,000.43	268,419.96	77,237.77	464,658.16	225,312.05	16,427.05	4,053.60	561,420.55	9,929.38	817,142.63	1,502,093.14
136,121.81		539,672.23	463,928.02	837,125.23	395,187.70	1,716,240.95	25,532.47	11,080.13	357.48	184,947.96	410.58	222,328.62	2,478,241.80
95,910.97		503,530.19	83,132.23	942,600.20	75,568.22	1,101,300.65	108,282.48	3,417.31	388.63	294,221.67	677.15	406,987.24	2,011,818.08
111,025.77	16,755.02	25,055,627.87	1,783,965.83	2,720,618.37	164,530.38	4,669,114.58	288,146.49	46,022.34	18,351.91	705,300.10	21,486.86	1,079,307.70	30,804,050.15
			43,514.46	43,672.19		87,186.65	32,367.09					32,367.09	119,553.74
							1,019,458.54					1,019,458.54	1,019,458.54
							490,698.55					490,698.55	490,698.55
										64,698.59		64,698.59	64,698.59
31,678.12	106,232.47	34,956,784.49	9,597,756.54	13,320,802.62	1,855,885.58	24,774,444.74	4,112,089.79	249,775.49	74,490.56	7,235,360.69	63,634.08	11,735,350.61	71,466,579.84

nd Contractor's overhead has been made on a dollar basis.

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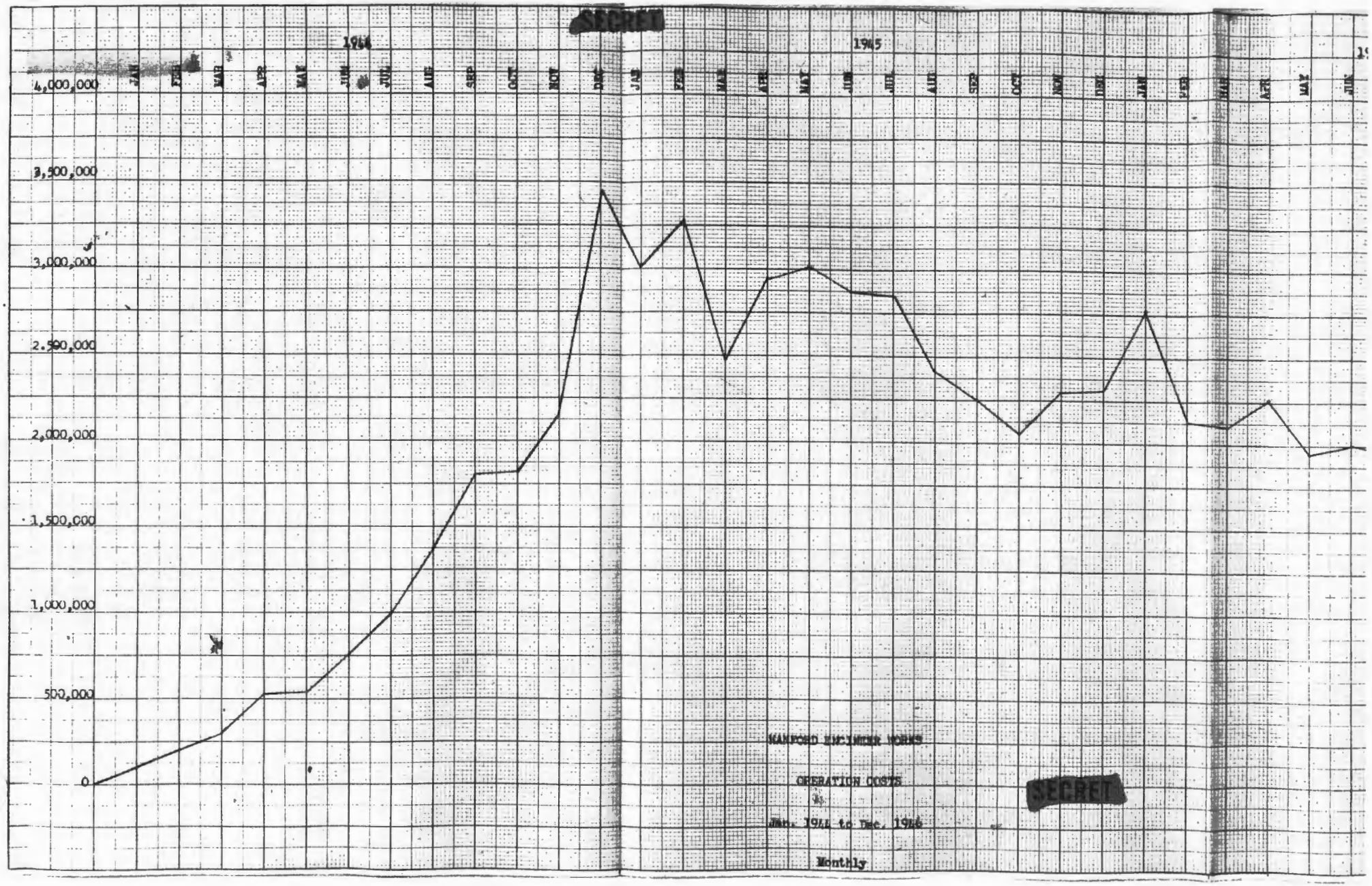

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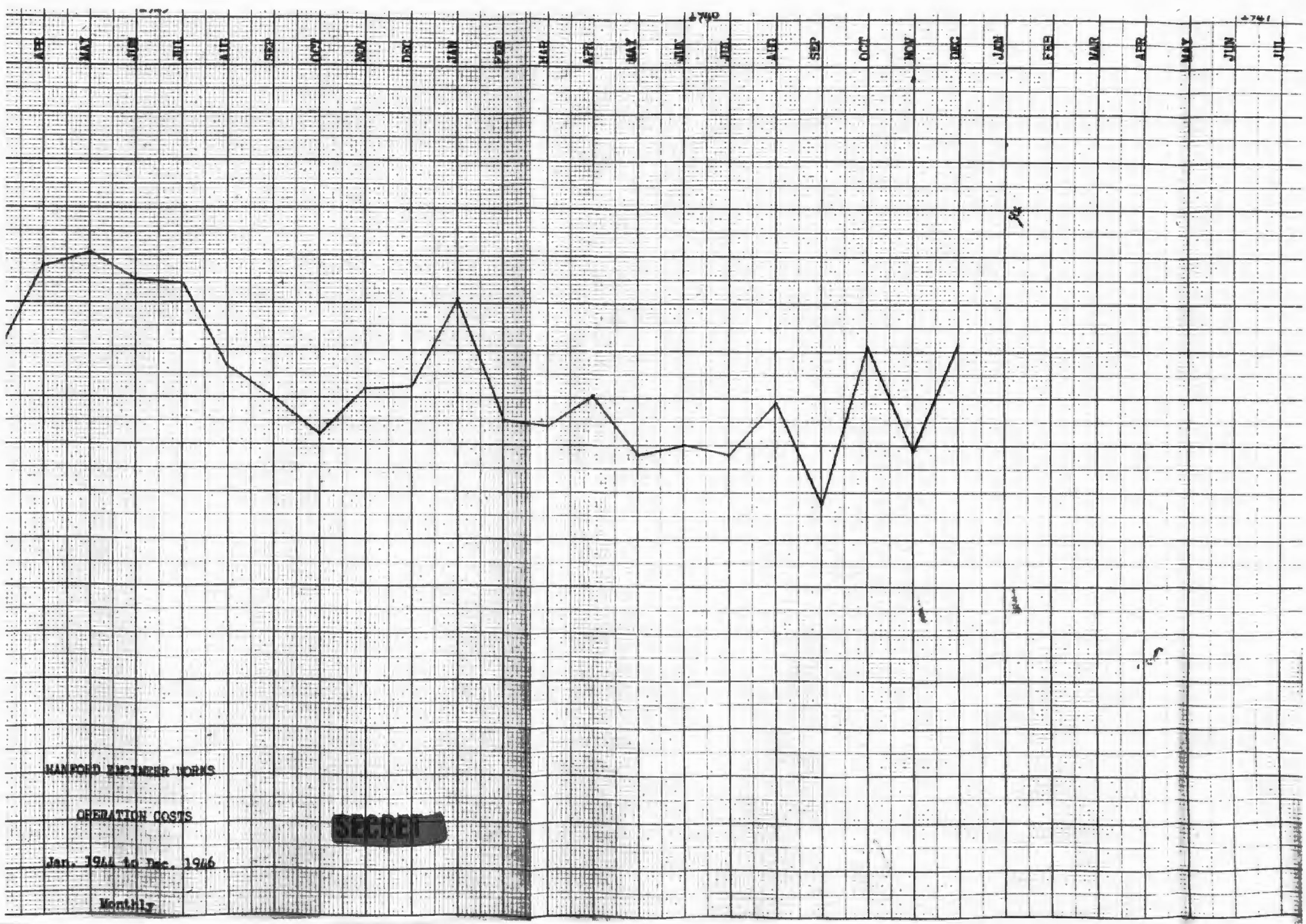
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HANFORD ENGINEER WORKS
OPERATION COSTS
Jan. 1944 to Dec. 1946
Monthly
SECRET

PERSON

OFFIC.	1
ENL.	1
P	
S P	
C A F	20
C P C	
MISCL.	
VAC.	
TOTAL	22

ADMINISTRATIVE DIVISION

Responsible for the planning, procedures and direction of work in all Administration Divisions and Offices.

Coordinates policies and plans with various divisions in this office and with the prime contractor.

MAJ R. H. D. RUFF, Chief

SELECTIVE SERVICE

Supervises the processing of Selective Service cases for Hanford Engineer Works' employees. Advisor on certifications under the West Coast plan.

SGT. I. ROSENBAUM

1 Clerk-Stenc CAF-3

FISCAL BRANCH

(See Sheet No. 6)

ADMINISTRATION BRANCH

As Chief Administrative Asst. is responsible for direct supervision of Personnel, Procurement and Mail & Records Section and indirect supervision of all functions in the Administrative Division acts as consultant to Administrative Officer on all administrative functions.

E. C. SCHULTE, Chief - Adm. Asst. CAF-11

1 Secretary CAF-6

PROPERTY & TRANSPORTATION BRANCH

(See Sheet No. 8)

CIVILIAN PERSONNEL SECTION

Supervises and directs the activities of pay roll, records and reports and the status classification subsections. Acts as advisor on all personnel problems. Interviews applicants for employment and makes recommendations as to their suitability.

J. M. DeMILLE, Chief-Adm. Asst.	CAF-9
H. J. DOYLE, Asst.-Adm. Asst.	CAF-7
1 Clerk	CAF-6
1 Clerk	CAF-4
1 Clerk-Stenc	CAF-3
1 Clerk	CAF-3

MAIL & RECORDS SECTION

Supervises employees engaged in receiving, classifying, indexing, dispatching and filing large volumes of correspondence and reports, also supervises messengers.

A. E. BRIDGE, Chief - Clerk	CAF-4
2 Clerks	CAF-3
1 Clerk	CAF-2

PROCUREMENT SECTION

Supervises all activities of Procurement Section, including interpretation of laws and requisitions, preparation of all necessary documents to effect purchase from TPS, QM or Navy contracts, and purchases on open market, reviews prime contractor's Records of Purchase to insure compliance with Government procurement policies and regulations.

B. C. ARNDT, Chief-Adm. Asst.	CAF-9
R. M. METZEL, Asst.-Adm. Asst.	CAF-8
1 Adm. Asst.	CAF-7
1 Clerk	CAF-5
1 Clerk	CAF-4
1 Clerk-Stenc	CAF-4
1 Clerk	CAF-3

ORGANIZATION CHART

MANHATTAN DISTRICT

E.E.No.

UNIT Administrative Division

SUBMITTED F. T. Matthias, Colonel, C of S DATE July 1945

RECOMMENDED DATE

APPROVED DATE

PERSONNEL	
OFFICERS	
ENL.	
P	14
S P	2
CAF	5
CPC	
MISCL.	28
VAC.	
TOTAL	49

ENGINEERING BRANCH

Coordinates and reviews work performed by sections of Engineering Division. Reviews and makes recommendations to higher authority on work of engineering character, including plans, specifications, contracts prepared by and performed under the direct supervision of the Prime Contractor or the Area Engineer. Acts as consultant to various branches of Prime Contractor's organization. Aids in establishing standards of performance, design factors and methods of accomplishing work of an engineering character. Approves drawings and specifications prepared by the Prime Contractor for work specifically authorized by higher authority.

C. S. CLARK, Chief - Engineer (Elec.) P-6
1 Clerk-Stenographer CAF-4

SPECIAL ASSISTANT

Coordinates work between the sections of the Engineering Division as directed by Division Chief. Acts as liaison between this office and the contractor in building maintenance, prepares minor construction data, supervises drafting, maintains register of du Pont Records of Purchase and handles Engineering Division correspondence as directed.

F. H. NINNEMAN, Chief - Engineer (Civil) P-4

OFFICE ENGINEER

Requisitions, receives, and distributes plans, specifications, prints, photostats, engineering records. Reviews and maintains record of contracts, subcontracts and amendments thereto. Files all records, plans, specifications, contracts and correspondence pertaining to the Engineering Division and prepares correspondence on miscellaneous matters in connection therewith.

F.N.WILDISH, Chief-Engineer (Civil) P-4
1 Clerk CAF-4

ELECTRICAL SECTION

Coordinates electrical design with the power companies and the contractor. Reviews and acts as consultant in all electrical design, general supervision of Government contracts covering electrical work. Conducts power studies and investigations for improvement of service and reduction of costs.

C.S.CLARK, Chief - Engineer (Elec.) P-6
1 Clerk-Stenographer CAF-4

INSIDE WORK SUB-SECTION

Detail inspection of electrical work and acceptance of completed work along with maintenance and detail records of work being done in individual units.

C.H.SHEPHERD, Chief-Engr. Elect.) P-5
1 Engr. (Elect.) P-3
1 Supt. (Elect.) P-3
1 Insp. (Elect.) SP-8
1 Supv. Aud. (Timekeeping) CAF-7
1 Administrative Asst. CAF-7

TRANSMISSION & DISTRIBUTION SUB-SEC.

Reports directly to the Chief of Elec. Section and is in charge of operation, repair, maint. and new construction on outside lines and sub stations operated by Government forces. Responds to trouble calls on lines and remote points on Government operated facilities.

A. J. LOFTUS, Chief - Superintendent Elec.) P-3

MECHANICAL SECTION

Reviews work submitted by prime contractor for approval and prepares plans and specs. as directed by higher authority. Correlates problems concerning mech. design, plans or specs. with the Operation Div. of this office or the Prime Contractor. Directly in charge of operation pumps, compressors, boilers, irrigation water systems, ice plant, barracks, and the maint. of such bldgs. and equipt. performed by this office. In charge of minor constr. facilities in connection with building equipment and functions performed by this office. As requested acts as consultant in mech. engr. operations and repairs to the Prime Contractor and the construction and production branches of this office.

J. M. MUSSER, Chief - Engineer (Mechanical) P-6
R. J. GIDNEY, Asst. - Engineer (Mechanical) P-3

3000 AREA SUB-SECTION

Responsible for operation and maint. of 3 high pressure boilers. Maint. of equipt. and minor maint. of bldgs. Operation of well pumps, booster pumps, chlorinator and sewer lines at 3000 Area. Operation of weather instruments. Responsible for tool room and obtaining and dispursing materials and supplies.

JOHN W. RIDER, Chief-Mech "C" 1.60 p/h
4 Boiler Firemen 1.15 p/h
1 Boiler Fireman 1.10 p/h
1 Tool & Store Attd. 1.25 p/h

IRRIGATION MAINTENANCE SUB-SECTION

Services, maintains, operates and repairs water pumps, keeping tanks full and maintaining line pressure for fire protection, chlorinates water and operates, repairs and maintains ice plant to produce cold storage temperatures for food and manufacturing ice.

B.W.MCEDE, Chief-Mechanic "B" 1.60 p/h
5 Mechanics "C" 1.60 p/h
4 Operators "A" 1.80 p/h

MAINTENANCE SHOP SUB-SECTION

Responsible for operation of area maint. shop including operation and repair of all mech. shop equipt. In charge of all maintenance and minor shop construction, including carpentry, plumbing, mech. work, elec., etc.

CLEMENT ALBERT, Chief-Mechanic C 1.50 p/h
7 Mechanics "C" 1.50 p/h

MINOR CONSTRUCTION & MAINTENANCE SUB-SECTION

In charge of inspection and repair of all tract houses outside of Richland. Responsible for necessary maint. and repair of all barricades, constr. bldgs. in Hanford, White Bluffs and Vernita, all area and general maintenance.

EDMUND ANDERSON, Chief - Mechanic "C" 1.80 p/h
2 Mechanics "C" 1.60 p/h

CIVIL SECTION

Checks work done by contractor, prepares plans and specifications, estimates of labor and material costs, engineering aspects of contracts for work involving civil engineering assigned to the Engineering Division, supervises and inspects performance of such work to the extent directed by higher authority and recommends the issuance of completion certificates. Initiates or recommends the issuance of completion certificates. Initiates or recommends on the desirability of methods for accomplishing improvements, maintenance, and repair in 700, 1100 and 3000 Areas as well as roads and general work, except railroads outside of the process areas. Does such work of civil engineering character as requested by the construction or production branches of this office.

LINDLEY M.KEITH, Chief-Engineer (Civil) P-3
1 Engineer (Civil) P-3
1 Engineer (Civil) P-2
1 Supt. (Const.) P-3
1 Engineering Aide SP-2

ORGANIZATION CHART
MANHATTAN DISTRICT
H.E.W.

UNIT Engineering Br., Engr. & Maint. Division

SUBMITTED F.T.Matthias, Colonel, C of E DATE 1 July 1945
RECOMMENDED DATE
APPROVED DATE

PERSONNEL
OFFICERS ... 8
ENL. ... 6
P ... 7
S P ...
CAF ... 2
CPC ... 25
MISCL. ... 18
VAC. ...
TOTAL ... 66

ENGINEERING & MAINTENANCE DIVISION

Responsible for the planning, procedure and directing of work in all engineering and maintenance divisions and offices.

Coordinates policies and plans with various divisions in this office and with the Prime Contractor.

MAJOR H. D. RILEY, Chief

COMMUNICATIONS BRANCH

Responsible for the operation and supervision of cryptographic security, teletype, telephones and all equipment required therefor. Acts as Liaison Officer between the Area Engineer, Signal Corps, Prime Contractor and other agencies of the Army.

CAPTAIN E. H. CARPLES, Chief

1 Supt.(Constr.) P-4
1 Clk.-Steno CAF-4

CONTRACTS & CLAIMS BRANCH

Prepares prime contracts, reviews and makes recommendations on all subcontracts and acts in an advisory capacity with the Contracting Officer and Prime Contractor on legal problems in connection with contracts, subcontracts or agreements; civilian assistant to the Assistant District Claims Officer, maintains liaison with various governmental and state agencies and civilian assistant to the Labor Relations Officer.

H. HAYDEN HECTOR, Chief - Attorney P-4
1 Clerk CAF-5

SAFETY BRANCH

Supervises and administers Community, Industrial and Construction Safety Programs, and Fire Prevention and Protection Program; organizes and coordinates accident prevention activities of the Safety Division. Also inspection of classified buildings in the 200 Areas.

VINCENT R. HOLMQUIST, Chief -Engineer (Safety) P-4
1 Clerk-Stenographer CAF-5

COMMUNITY MANAGEMENT BRANCH

Reviews specifications, invitations to bid and contracts on all community facilities, reviews renegotiation on facility contracts and all regulations for operation and maintenance of the community. Maintains records on facilities, leases and financial statements, establishes rentals on houses and dormitories and makes allocations to military and civilian employees, approves leases for same for the Contracting Officer, handles all real estate matters and assists Federal Prison Industries in the care and operation of all agricultural lands within the project.

H.G.FULLER, Chief-Adm.Asst., CAF-11
L.W.WARNKE, Asst.Chief-Adm.Asst. CAF-8
1 Adm.Asst. CAF-8
1 Clerk-Steno. CAF-4

TELETYPE

CAPTAIN E.H.CARPLES, Chief
SGT. I. E. MELVIN
1 T/5 (WAC)
1 T/5 (WAC)
1 Pvt. (WAC)

ENGINEERING BRANCH

(See Sheet No. 4)

MAINTENANCE SECTION

Responsible for supervision of installation, removal, and maintenance of telephones throughout the area; maintains miscellaneous circuits such as teletype, tactical communications, power dispatching, train dispatching, radio control, monitor circuits for which wire facilities are furnished by this section. Maintains all switchboards, telephone records, cooperates with contractor analyzing traffic data and with the Signal Corps in obtaining equipment, materials and facilities. Requisitions stores, issues tools, and maintains all necessary records in connection therewith.

A.PARLETT,Jr., Chief -Supt.(Const.) P-4
1 Clerk CAF-4
1 Storekeeper CAF-7
3 Tel.Lineman Foremen 1.70 p/h
14 Linemen 1.65 p/h
1 Groundman 1.10 p/h

COMMUNITY SAFETY SECTION

Serves as consultant to Safety Director on all community safety activities, including traffic and sanitation. Supervises the community safety program to insure enforcement of safety measures, and reduce absenteeism due to accidents, in the home and school. Responsible for all Government employees' Safety Program. Inspects sanitation of all food handling establishments

J.M. AUSTIN, Chief - Engineer(Safety) P-3

FIRE PREVENTION AND PROTECTION SECTION

Serves as consultant to the Safety Director on all fire prevention and protection matters. Responsible for the inspection of all construction and operations activities for fire hazards. Insures adequate fire fighting equipment and personnel in all areas on the project. In direct charge of the Hanford Patrol Department.

V.P.SHERRILL,Chief-Eng.(Safety) P-3
HANFORD PATROL DEPT.
3 Patrolmen CPC-8
1 Patrolman CPC-7
19 Patrolmen CPC-6

INDUSTRIAL SAFETY SECTION

Serves as consultant on all technical safety problems in 100 and 300 Areas. Inspects all operations activities; supervises contractors' safety programs in those Areas. Also, inspects non-classified buildings in 200 Areas.

V.R.HOLMQUIST,Chief-Engr.(Safety) P-3

ORGANIZATION CHART
MANHATTAN DISTRICT
E.E.W.

UNIT Engineering & Maintenance Division

SUBMITTED [signature] dated July 1945
P.T.Matthias, Colonel, C of E

RECOMMENDED ... DATE ...

APPROVED ... DATE ...

SHEET NO 3 OF 6 SHEETS

PERSONNEL
OFFICERS 12
ENL. 208
P
S P
CAF 3
CPC
MISCL.
VAC.
TOTAL 220

EXECUTIVE OFFICER

MAJOR WILLIAM L. SAPPER

1 Clerk CAF-4

MILITARY AFFAIRS

Responsible for proper coordination of all affairs involving Officers, M.P.Det., WAC and SED.
MAJOR WILLIAM L. SAPPER, Chief
Capt.T.A.Sterling-Sum.Crt.Off.
Capt.W.Y.Bush-M.P.Commander
Capt.J.L.Dickson-SED Commander
1st Lt.D.H.Varner-WAC Commander

M. P. DETACHMENT NO. 2

4 - 1st.Lts.	19 - Sgts.
1 - 1st Sgt.	14 - T/5
4 - T/Sgts.	11 - Cpls.
5 - S/Sgts.	79 - Pfc.
6 - T/4	65 - Pvts.

EXECUTIVE ASSISTANT

Supervises and is responsible for proper conduct and performance of all civilian personnel activities, procurement of supplies and equipment, and preservation of records. Investigates procedures and functioning of civilian department for the Executive Officer to assure that overall policies of the Government are being properly carried out within prescribed regulations. Responsible for maintenance of employees' morale and special services.

N. D. STURGIS-Adm. Asst. CAF-13

LABOR RELATIONS

Liaison between District and areas in connection with Labor Relations problems. Establishment and maintenance of wage and salary ranges.
MAJOR WILLIAM L. SAPPER, Chief

1 Clerk CAF-5

CLASSIFIED FILES

Responsible for proper cataloging, filing, issuing and receiving of classified documents and correspondence.
S. A. SHERMAN T/3, Chief

1 T/5 (WAC)
1 Pvt. (WAC)

SURVEY

Conducts surveys and recommends disposition of Government property, equipment, etc.
MAJOR H. D. RILEY, Chief

ENGINEERING & MAINTENANCE DIVISION

(See Sheet No. 3)

ADMINISTRATIVE DIVISION

(See Sheet No. 5)

PRODUCTION DIVISION

(See Sheet No. 9)

ORGANIZATION CHART
MANHATTAN DISTRICT
E.E.W.

UNIT Executive Office

SUBMITTED DATE 1 July 194
P.T.Matthias, Colonel, C.of E.
RECOMMENDED DATE
APPROVED DATE

PERS
OFFICERS 22
ENL 221
P 30
S P 7
CAP 108
GPG 28
ENGR 76
VAC
TOTAL 492

AREA ENGINEER

COLONEL F. T. MATTHIAS

1 Secretary CAF-5

DEPUTY AREA ENGINEER and CHIEF OF CONSTRUCTION

LT. COL. BENJAMIN T. ROGERS

John T. Flanagan - Supt.(Constr.) P-4

1 Clerk-Stenographer CAF-4

MEDICAL

General supervision of all medical facilities. Responsible for proper functioning of Industrial and Internal Medicine, Public Health, etc.

MAJOR A. A. WHITE, Chief
1ST LT. MAX DEHN, Asst.Chief
1 T/4 (MAC)

LEGAL

Renders legal advice and opinions, directs the handling of all legal matters, confers with federal, state and contractor officials, arranging methods for enforcement of all laws, including matters relating to federal and state jurisdiction, taxation, contracts, claims by or against the Government and renders legal assistance to military personnel.

ROGER I. HARRIS, Chief-Attorney, P-5
1 T/3 (MAC)

MILITARY INTELLIGENCE

Responsible for proper functioning of M. I. activities.

CAPTAIN LYALL E. JOHNSON, Chief
Capt. T. S. Sterling
1st Lt. J. V. White
1st Lt. P. J. Gahan
2nd Lt. W. J. Devlin
2nd Lt. J. H. Dunn
2nd Lt. O. R. Simpson
2nd Lt. C. L. Johnson

2 Guards CPC-7

PUBLIC RELATIONS

Responsible for control of publicity.
1ST. LT. MILTON R. CYRIL, Chief
1 T/4 (MAC)

EXECUTIVE OFFICER

(See Sheet No. 2)

ENGINEERING & MAINTENANCE DIVISION

(See Sheet No. 3)

ADMINISTRATIVE DIVISION

(See Sheet No. 5)

PRODUCTION DIVISION

(See Sheet No. 9)

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED F. T. Matthias, Colonel, C of E DATE 1 July 1945

RECOMMENDED _____ DATE _____

APPROVED _____ DATE 9/19/45

B-8

[redacted]

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

PERSONNEL

OFFICERS	
ENL.	
P	13
S P	1
C A F	1
S P S	
MISCL.	60
VAC.	9
TOTAL	84

ENGINEERING & MAINTENANCE DIVISION

Responsible for the planning, procedure and directing of all work in the engineering and maintenance division.

Coordinates policies and plans with various divisions in this office and with the Prime Contractor.

C.S.Clark, Chief-Engineer, Electrical P-6
P.H.Winneman, Asst.-Engineer, Civil P-4
1 Secretary CAF-5

MECHANICAL BRANCH

Directs the preparation of plans, designs, specifications and estimates in connection with mechanical engineering activities. Prepares special studies and acts as consultant to other divisions of the office. Directs operation of irrigation pumping and irrigation water distribution systems in the Vernita and Hanford Areas. Directs the operation and maintenance of the White Bluffs ice and cold storage plant. Directs the maintenance of buildings in the 3000 Area. Responsible for minor construction and maintenance in connection with all buildings, equipment and functions assigned to this office.

J.M. MUSSER, Chief-Engineer (Mechanical) P-5
R. J. Gidney, Asst. - Engineer (Mechanical) P-3
1 Vacancy, Clerk CAF-2

CIVIL ENG'R. BRANCH

Directs the preparation of plans, specifications and estimates for work involving civil engineering assigned to the Engineering Div. Directs the supervision and/or inspection of such work as directed by higher authority. Acts as consultant on problems of an engineering nature.

L. M. REITH, Chief-Engr.(Civil) P-4
1 Engineer(Civil) P-3
1 Superintendent (Constr.) P-3

OFFICE ENGINEER

Requisitions, receives and distributes plans, specifications, photostats, engineering records. Assembles and compiles quarterly budget to cover activity of Engineering and Maintenance Division. Compiles and maintains record of work orders and construction projects, routes through office and submits to District for approval as required. Maintains records and files of plans, specifications, contracts and documents pertaining to the Engineering Division. Maintains property account for Engineering Division.

F. N. WILDISH, Chief - Engineer (Civil) P-4

MINOR CONSTR. & MAINT. SECTION

Responsible for operation of 3000 Area maint. shop, including operation and repair of all mech. shop equipment. In charge of all maintenance and minor construction, including carpentry, plumbing, machine work, electrical, etc.

E.B.WORKMAN, Chief-Maint. Foreman $214 p.h.

1 Foreman, Constr.& Maint.	$2.14
2 Electricians	1.88
1 Mechanic, Sr.	1.94
2 Plumber-Steamfitters, Sr.	1.94
1 Carpenter, Sr.	1.94
1 Carpenter, Sr., Vacancy	1.94
1 Welder, Mechanic	1.82
3 Electrician, Lineman	1.88
4 Mechanics, General	1.82
1 Mechanic, Gen., Vacancy	1.82
2 Plumber-Steamfitters	1.82
3 Carpenters, Field & Shop	1.82

IRRIGATION MAINT. & COLD STOR. SEC.

Services, maintains, operates and repairs water pumps, keeping tanks full and maintaining line pressure for fire protection at White Bluffs; chlorinates water and operates, repairs and maintains ice plant to produce cold storage temperatures for food and manufacturing ice.

B.M.MCKEE, Chief-Superintendent P-2

1 Mechanic, Sr. - Vacancy	$1.94
1 Mechanic, General	1.82
7 Refrigeration Opers.	1.59

3000 AREA SECTION

Responsible for operation and maint. of 5 high pressure boilers. Operation of well pumps, booster pumps, chlorinator and sewer lines at 3000 Area. Operation of weather instruments. Responsible for tool room and obtaining and disbursing materials and supplies.

JOHN W. RIDER, Chief-Mech, Sr. $1.94

1 Mech, Sr.	1.94
1 Mech., Genl.	1.82
11 Fireman, Boiler	1.33
2 Fireman, Boiler, Vacancy	1.33

INSIDE ELECTRICAL BRANCH

Inspects installed electrical equipment in government operated plant, makes special installations as required. Prepares special engineering studies and assignments. Directs salvage operations to recover electrical and other equipment in Central Shops, Hanford and other areas.

C. H. SHEPHERD, Chief- Engineer, Electrical P-5

1 Engineer, Electrical	P-3
1 Supt., Electrical	P-3
1 Inspector, Electrical	SP-8
7 Mechanics, Gen'l.	$1.82 ph
10 Mechanic, Helper, Gen.	1.33 ph
3 Mech., Helper, Gen., Vacancy	1.33

ELECTRICAL DISTR. & TRANSM. BRANCH

Responsible for operation, patrol, maint. and new construction on outside lines and substations operated by Government forces. Responds to trouble calls on lines and remote points on Government operated facilities.

A.J.LOFTUS, Chief-Supt.(Elect.) P-3

SAFETY BRANCH

(SEE SHEET #5)

COMMUNITY MANAGEMENT BRANCH

(SEE SHEET #5)

COMMUNICATIONS BRANCH

(SEE SHEET #5)

[redacted]

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Construction Engineer Works

SUBMITTED Lt. Col. Frederick J. Clarke, Area Engineer DATE 3 Oct. 194

RECOMMENDED DATE

APPROVED DATE 4 Oct. 44

PERSONNEL

OFFICERS 4

ENL. 2

P 9

S P

C A F 6

C P C

MISCL.

VAC. 7

TOTAL 27

AREA ENGINEER AND EXECUTIVE OFFICER

PRODUCTION DIVISION

Supervises all matters pertaining to plant operations including plant maintenance.

LT.COL.HARRY E.SKINNER - Chief

R.C.HAGEMAN - TECHNICAL ASST. Engineer(Mech.) P-7

1 Physicist P-4

1 Information Specialist CAF-7

100 AREA

Responsible for the Government supervision of the contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 100 Areas, including all associated technical and laboratory work, maintenance of records of primary manufacturing operations and manufacturing operations and materials in preparation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

MAJOR F.A.VALENTE - Chief

2 Industrial Engineers P-4

1 Vacancy - Indust.Engr. P-4

2 Vacancies - Engineer P-4

1 Physicist P-3

1 Clerk-Steno CAF-4

200 AREA

Responsible for the Government supervision of the Contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 200 Areas, including all associated technical and laboratory work, maintenance of records of primary manufacturing operations and materials in preparation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

CAPT.J.L.YUCKER - Chief

1 Vacancy - Engineer P-5

3 Vacancies - Engineers P-4

1 Engineer(Chemical) P-3

1 T/3 (M. P.)

1 T/4 (M. P.)

300 AREA

Responsible for the Government supervision of the contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 300 Area, including all associated technical and laboratory work, maintenance of records of primary manufacturing operations and materials in preperation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

RUSSELL E.STANFORD, Chief - Metallurgist P-5

2nd Lt.H.C.Smith, Assistant

1 Industrial Engineer P-4

1 Vacancy, Clerk-Steno CAF-4

PRODUCT CONTROL BR.

Maintains production records, reviews and verifies contractor's daily and control reports, prepares receiving and shipping documents for classified materials, reviews and is responsible for various administrative functions, and maintains production control files and reviews contractor's selective deferment requests and contractor's accountability records.

H.R.FREITAG, Chief-Adm.Asst. CAF-10

1 Clerk-Steno CAF-3

REQUIREMENTS & PROCUREMENT BR.

Maintains record of requirements for essential production material. Checks bi-monthly reports to determine that orders and inventory are sufficient. Maintains file on laboratory analyses of essential materials, reviews purchase orders and requisitions determining essentiality and source of supply, assists in procurement through War Production Board, Washington Liaison Office, and other agencies, renders priority service, maintains all necessary records in connection therewith, and keeps Chief of Production and Area Engineer advised.

P.A.WELLS, Chief - Engr.(Matls.) P-5

1 Clerk CAF-5

100 B | 100 D | 100 F

200 E | 200 W | 200 H

[redacted]

ORGANIZATION CHART

MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED [signature] DATE 3 Oct. 1946

Lt. Col. Frederick J. Clarke, Area Engineer

RECOMMENDED ____ DATE ____

APPROVED [signature] DATE 5 Oct 46

WAR DEPARTMENT

[redacted]

CORPS OF ENGINEERS, U.S. ARMY

AREA ENGINEER
LT. COL. FREDERICK J. CLARKE
1 Secretary CAF-5

ASSISTANT
MAJOR J. E. TRAVIS

EXECUTIVE OFFICER
MAJOR WILLIAM L. SAPPER
LT. C. E. FILIPI - ADJUTANT
1 Vacancy, Clerk-Steno CAF-4

PERSONNEL

OFFICERS	22
ENL.	237
P	2
S P	
C A F	16
C P C	
MISCL.	
VAC.	11
TOTAL	288

MILITARY INTELLIGENCE DIVISION
CAPTAIN P. B. MCUNTJOY, Chief
CAPTAIN T. A. STERLING, Deputy

INVESTIGATION BRANCH
Conducts and supervises the Investigative, S.M.I., Censorship, and Laboratory of the Intelligence Office. Investigates alleged violations of Espionage and Sabotage statutes by project employees. Investigates violations by persons residing within project boundaries. Maintains liaison with F. B. I., C. N. I., etc. Reviews and examines case reports of employees.
CAPTAIN J. N. HULL, Chief
2 Intelligence & Security Officers CAF-11
1 Vacancy - Investigator CAF-11
2 Vacancies - Investigators CAF-9

PLANT & SHIPMENT SECURITY BRANCH
Directs and assists in establishment, operation, and maintenance of transportation system for delivery of essential materials to destinations. Initiates and personally maintains security measures necessary to materials enroute. Maintains inspection and repair program for vehicles utilized in transportation. Directs, supervises, aids and assists plant management in physical security of Prime Contractors patrol force. Prepares formal survey of plants at the various Class A and B Installations at H.E.W. and elsewhere.
CAPTAIN J. F. COPPS, Chief
3 1st Lts.
2 Inspectors (Plant Protection) CAF-9
1 Vacancy - Inspector (Plant Protection) CAF-9
1 Vacancy - Clerk CAF-4

PERSONNEL CLEARANCE, GUARD AND RANGE BRANCH
Responsible for proper functioning of clearances. Maintains liaison between Federal and State Investigative bodies necessary for conducting investigations. Supervises and maintains all Military Intelligence office files and property records. Responsible for Range & Trng. facilities of Civilian Guard.
1st. Lt. D. A. KLEIN - Chief
1 Clerk-Typist CAF-3
1 Vacancy, Clerk-Typist CAF-3
2 Clerk-Typists CAF-2
1 Telephone Operator CAF-2
1 Clerk-Steno CAF-3
3 Vacancies, Clerk-Typist CAF-2
1 Patrolman CPC-7

MILITARY POLICE
Responsible for proper coordination of all affairs involving M.P. Detachment #2.
CAPTAIN W.Y.BUCK, COMMANDING OFFICER

4 Captains	1 T/S
3 1st Lts.	16 Sgts.
1 2nd Lt.	5 T/4
1 M/Sgt	26 Cpls.
1 1st Sgt.	15 T/5
9 T/Sgts.	100 Pfcs.
8 S/Sgts.	55 Pvts.

LABOR AND PUBLIC RELATIONS DIV.
Reviews all Labor Relations Matters and advises Area Engineer of policies and procedures which are pertinent thereto. Responsible for the control and release of all publicity.
MILTON R.CYDELL, Chief - Labor and Public Relations Officer, CAF-11
1 Clerk CAF-4

MEDICAL
General supervision of all medical facilities. Responsible for proper functioning of Industrial and Internal Medicine, Public Health, etc.
CAPTAIN HUGH DWYER, Chief

CONSTRUCTION DIV.
JOHN T. FLANAGAN, Chief - Supt. (Constr.) P-3

LEGAL
Renders legal advice to Area Engineer and contractor on all activities, directs handling of litigation, maintains liaison with Federal, State and Contractor officials regarding methods of administering and enforcing laws and regulations, including problems of Federal & State jurisdiction, police power, taxation, labor, contractor, claims, workmen's compensation, insurance, price and wage regulations; acts as Claims Officer and Legal Assistance Officer; supervises and directs activities of Contracts & Claims and Insurance Section.
ROGER I. HARRIS, Chief, Attorney P-6
1 Clerk-Steno. CAF-6

CONTRACTS & CLAIMS BRANCH
Prepares prime contracts, reviews all subcontracts, acts as advisor to contracting officer and prime contractor on contracts, subcontracts and miscellaneous agreements; serves as assistant to Claims Officer and Legal Assistance Officer; maintains liaison with and coordinates activities of various departments of Prime Contractor responsible for preparation of all sub-contracts and agreements.
BUFORD M. BRYANT, Chief, Attorney P-4

INSURANCE BRANCH
Administers and supervises project insurance program; advises A.E. as to adequacy of coverage, insurance cost; supervises investigation of all liability and compensation claims and assists in preparing defenses thereto; reviews and audits activities of State Dept. of Labor and Industries and of Travelers Insurance Co. to insure regularity of proceedings, correctness of payments and security protection; maintains liaison with insurance carriers; maintains claims file, indices and records in regard to all insurance matters; (conducts periodic audits of records of Dept. of Labor and Industries and Travelers Insurance Co.)
1 VACANCY, Chief, Adm. Asst. CAF-11
1 Clerk-Steno. CAF-2

PRODUCTION DIV.
(SEE SHEET #6)

ENGINEER. & MAINT.
(SEE SHEET #4)

ADMINISTRATIVE DIV.
(SEE SHEET #6)

[redacted]

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED Lt. Col. Frederick J. Clarke, Area Engineer DATE 3 Oct. 1946

RECOMMENDED ____ DATE ____

APPROVED [signature] DATE [illegible]

WAR DEPARTMENT

[redacted]

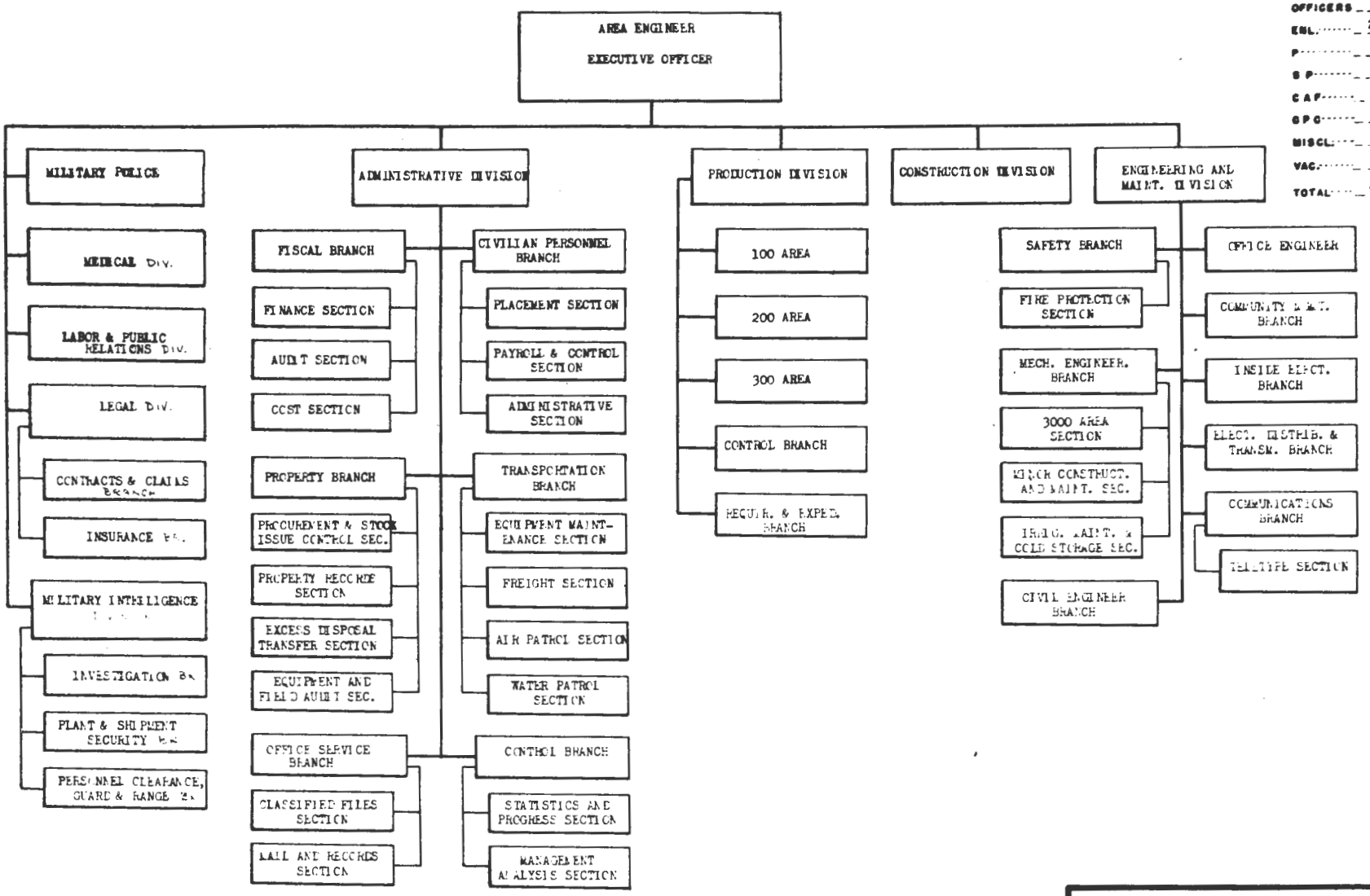
CORPS OF ENGINEERS, U.S. ARMY

M

B-9

PERSONNEL

OFFICERS	30
ENL.	239
P	32
S P	4
C A P	191
G P C	32
MISCL.	80
VAC.	35
TOTAL	603



ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED [redacted] DATE 3 Oct. 194[illegible]
Lt. Col. Frederick J. Clarke, Area Engineer

RECOMMENDED [redacted] DATE [redacted]

APPROVED [redacted] DATE 15 Feb 194[illegible]

[redacted]

SHEET NO. 1 OF 10 SHEETS

PERS

OFFICERS	1
ENL.	7
P	6
S P	
C A F	8
C P C	
MISCL.	
VAC.	
TOTAL	21

PRODUCTION DIVISION

Supervises all matters pertaining to plant operations including plant maintenance.

MAJ R. J. F. SALLY, Chief
TECHNICAL ASSISTANT
R.C.PAGEMAN-Engr.,Mech.) P-6
1 S/Sgt (WAC)
1 T/4 (WAC)

PRODUCTION CONTROL BRANCH

Maintains production records, reviews and verifies contractor's daily and control reports, prepares receiving and shipping documents for classified materials, reviews and is responsible for various administrative functions, and maintains production control files and reviews contractor's selective deferment requests and Contractor's accountability records.

H.B.FREITAG, Chief- Adm.Asst. CAF-10
1 Clerk-Steno CAF-4

REQUIREMENTS & PROCUREMENT BRANCH

Maintains record of requirements for essential production material. Checks bi-monthly reports rendered by the contractor to determine that orders and inventory are sufficient. Maintains file on laboratory analyses of essential materials, reviews purchase orders and requisitions, determining essentiality and source of supply,assists in procurement through War Production Board, Washington Liaison Office, and other agencies, renders priority service, maintains all necessary records in connection therewith, and keeps Chief of Production and Area Engineer advised.

P.A.WELLS,Chief-Engr.(Matls.) P-5
1 Clerk CAF-6
1 Clerk-Steno CAF-5

100 AREA

Responsible for the Government supervision of the contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 100 Areas, including all associated technical and laboratory work, maintenance of records of primary manufacturing operations and materials in preparation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

MAJOR F.A.VALENTE, Chief
1 Engr.(Elec.) P-4
1 Industrial Engr. P-4
1 T/5 (WAC)

- 100 B
- 100 D
- 100 F

200 AREA

Responsible for the Government supervision of the Contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 200 Area, including all associated technical and laboratory work, maintenance of records of primary manufacturing operations and materials in preparation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

MAJOR F.A.VALENTE, Chief
2 T/3 (SED)
1 T/4 (SED)
1 T/5 (WAC)

- 200 E
- 200 W
- 200 H

300 AREA

Responsible for the Government supervision of the contractor in the performance of all work relating to primary and auxiliary manufacturing processes in the 300 Areas, including all associated technical and laboratory work,maintenance of records of primary manufacturing operations and materials in preparation of special monthly reports and acts as liaison between the field, contractor and the Chief of Production.

CAPTAIN R. E. STANFORD, Chief
1 Industrial Engr. P-4
1 Clerk-Steno CAF-4

ORGANIZATION CHART

MANHATTAN DISTRICT
M.E.W.

UNIT Production Division

SUBMITTED P.T.Matthias, Colonel, C of S dated July 1945

RECOMMENDED ____ DATE ____

APPROVED ____ DATE ____

PERSONNEL	
OFFICERS	1
ENL.	1
P	4
S P	2
CAF	11
CPC	3
MISCL.	50
VAC.	
TOTAL	74

[illegible] BRANCH

Supervises and directs the [illegible], recording, inventory, storage and salvage of property, and the maintenance of all necessary property accounts. Supervises all operations in connection with land, water and air transportation by Government-owned facilities. Issues all transportation requests and Government bills of lading. Supervises repair and maintenance of all Government-owned equipment.

CAPTAIN [illegible], Chief
1 [illegible] (KAT)
1 Clerk CAF-[illegible]

GARAGE

Supervises transportation garage; directs all repairs and replacements, maintenance of supplies, gas, oil and grease; is responsible for all records pertaining to the garage.

C.A. MUNSON, Chief - Mech."A" $1.75p/h
P.H. GRAY, Asst.-Storekeeper CAF-6
10 Mechanics "C" 1.50 p/h
3 Oilers 1.10 p/h
1 Auto Attend't 1.10 p/h
2 Laborers 1.00 p/h

[illegible] SECTION

Supervises audit of incoming freight statements; issuance of Government Bills of Lading, files, correspondence and routine clerical work relevant to transportation matters.

A. J. [illegible], Chief - Adm.Asst. CAF-[illegible]
1 Clk.-Steno CAF-4

[illegible] SECTION

Responsible to the Property Officer for planning and directing work of the Property Section and coordinating functions of the various units of the Property Section with other Divisions of this Office and the Contractor.

E.A. [illegible], JR., Chief - Adm.Asst. CAF-9
[illegible], Asst. - Adm.Asst. CAF-7

EQUIPMENT MAINTENANCE SECTION

Supervises maintenance of all equipment; directs inspection of same; records and inspects reports; authorizes purchase of parts as required.

C.J. WAGNER, Chief-Supt.(Equip) P-4
N.P. TAYLOR, Asst.Chf.-Supv.Aud(T&E) CAF-8
1 Supt.(Equip.) P-3
1 Insp.(Equip.) SP-8
1 Clerk CAF-4
1 Clerk-Steno CAF-3

ACCOUNTS & [illegible] SUB-SECTION

Supervises the maintenance of all property records, checks with cards and files all Receiving Reports and shipping documents, issues all shipping documents on outgoing shipments, and maintains necessary records in connection therewith.

L.T. YANCY, Chief-Adm.Asst. CAF-7
1 Clerk CAF-6
1 Clerk-Steno CAF-4
2 Clerks CAF-4
1 Storekeeper CAF-3
5 Clerk-Typists CAF-3
1 Clerk-Typist CAF-2

EQUIPMENT & FIELD AUDIT SUB-SECTION

Audits contractor's property records, reviews and maintains records on production equipment, material handling equipment, cafeteria and laboratory equipment, and makes periodic inspection and inventories.

C. L. FRISACLI, Chief-Clerk CAF-6
2 Clerks CAF-6
1 Storekeeper CAF-5
1 Clerk CAF-3

MOTOR POOL

Directs operation of motor transportation pool; dispatches chauffeurs and truck drivers as required; orders repairs of equipment as needed.

C. AKERS, Chief-Trans.Foremn $1.35p/h
4 Truck Drivers (Light Duty) 1.10p/h
1 Truck Driver (Serv.& Supl.) 1.25p/h

RECEIVING & [illegible] SUB-SEC.

Receives all materials and supplies purchased by the Government, inspects quality and quantity and prepares receiving reports. Maintains stock account, prepares cost forms 4 and 4A. Maintains warehouse, issuing and receiving property and supplies and keeps all necessary records pertaining thereto.

P.H. [illegible], Chief-Storekeeper CAF-7
1 Storekeeper CAF-6
1 Insp.(Mtls.) SP-6
2 Clerks CAF-4
1 Clerk CAF-3
2 Clerk-Typists CAF-3
1 Truck Driver(S.&S.) 1.25 p/h
2 Laborers 1.00 p/h

WATER PATROL

Directs water patrol of river adjacent to Project; maintains minor repairs of equipment.

T.H. SMITH, Chief-Mechanic "C" 1.[illegible] p/h
2 Operators (Mntt.) 2300 pa
1 Operator (Mntt.) 2600 pa

AIR PATROL

Supervises air patrol of project and vicinity.

P.F. [illegible], Chief-Airplane Pilot P-3
1 Airplane Pilot P-3
[illegible] Patrolmen CPC-6

ORGANIZATION CHART
MANHATTAN DISTRICT
M.E.W.

UNIT Transp. & Property Br., Admin. Div.
SUBMITTED [signature] (DATE) July 1945
F.T. Matthias, Colonel, C of E
RECOMMENDED ____ DATE ____
APPROVED ____ DATE ____

PERS
OFFICERS
ENL
P
S P 3
CAF 19
SPS
MISCL
VAC
TOTAL 22

Prescribe policies and procedures for [illegible] with respect to reimbursement of expenditures based on reviews of contracts, audit rule regulations and working papers as well as discussions with members of the division, the contractor's staff and other employees and officers of the Area Engineer's Office. Furnish such information as is requested by the General Accounting Office staff with respect to reimbursements. The Chief Project Auditor devotes his time principally to matters of procedure and policy and to matters between the division and the contractor, the Assistant Chief Project Auditor administers affairs within the Division and maintains liaison with the General Accounting Office field staff.

J. J. MURPHY, Chief - Chief Project Auditor CAF-11
F. A. HOUGLAND, Asst. - Asst. Chief Proj. Auditor CAF-10

SPECIAL ASSISTANTS

Review of contractor's and subcontractors' procedures, audits their accounts to determine all revenue has been passed on to the Government; special auditing investigations.

O. B. YOUNGLING, Chief, Auditor, CAF-8

PAY ROLL AUDIT SUB-SECTION

Audits CPFF pay roll and related rolls, travel and transfer agreement vouchers. Reviews monthly salaries for conformity with regulations.

F. P. TRACY, Chief - Clerk CAF-5
1 Clerk CAF-4
1 Comp. Operator CAF-4

MATERIAL AUDIT SUB-SECTION

Audits CPFF vouchers covering purchases of materials and transportation charges on same.

J. C. [illegible], Chief - Supv. Aud. CAF-8
3 Clerks CAF-5
1 Clerk CAF-3

INSURANCE AUDIT SUB-SECTION

Audits insurance vouchers and reviews all matters pertaining to insurance.

W. A. LYBECK, Chief - Adm. Asst. CAF-9

FIELD CHECK

Spot checks contractor's receiving and shipping. Spot checks attendance of contractor's employees.

C. M. LYNCH, Chief - Inspector (Mat'ls) SP-8
1 Insp. (Mat'ls.) SP-6
1 Insp. (Equip.-Time) SP-6
1 Clerk CAF-5

FISCAL - PROCUREMENT REVIEW SUB-SECTION

Reviews and approves CPFF purchases. Reviews lump sum subcontracts and audits requests for payments thereunder. Control of requests for reimbursement and transmittal of same to Finance Officer for payment. Maintain voucher register. Maintain record of cash receipts. Bank reconciliation of CPFF bank accounts. Proof of payment all reimbursement vouchers.

F. L. BARLESS, Chief - Adm. Asst. CAF-9

SUBCONTRACTS, VOUCHER REGISTER AND CASH RECEIPTS
G. V. HEAG-N, Chief - Clerk CAF-5
2 Clerk CAF-4

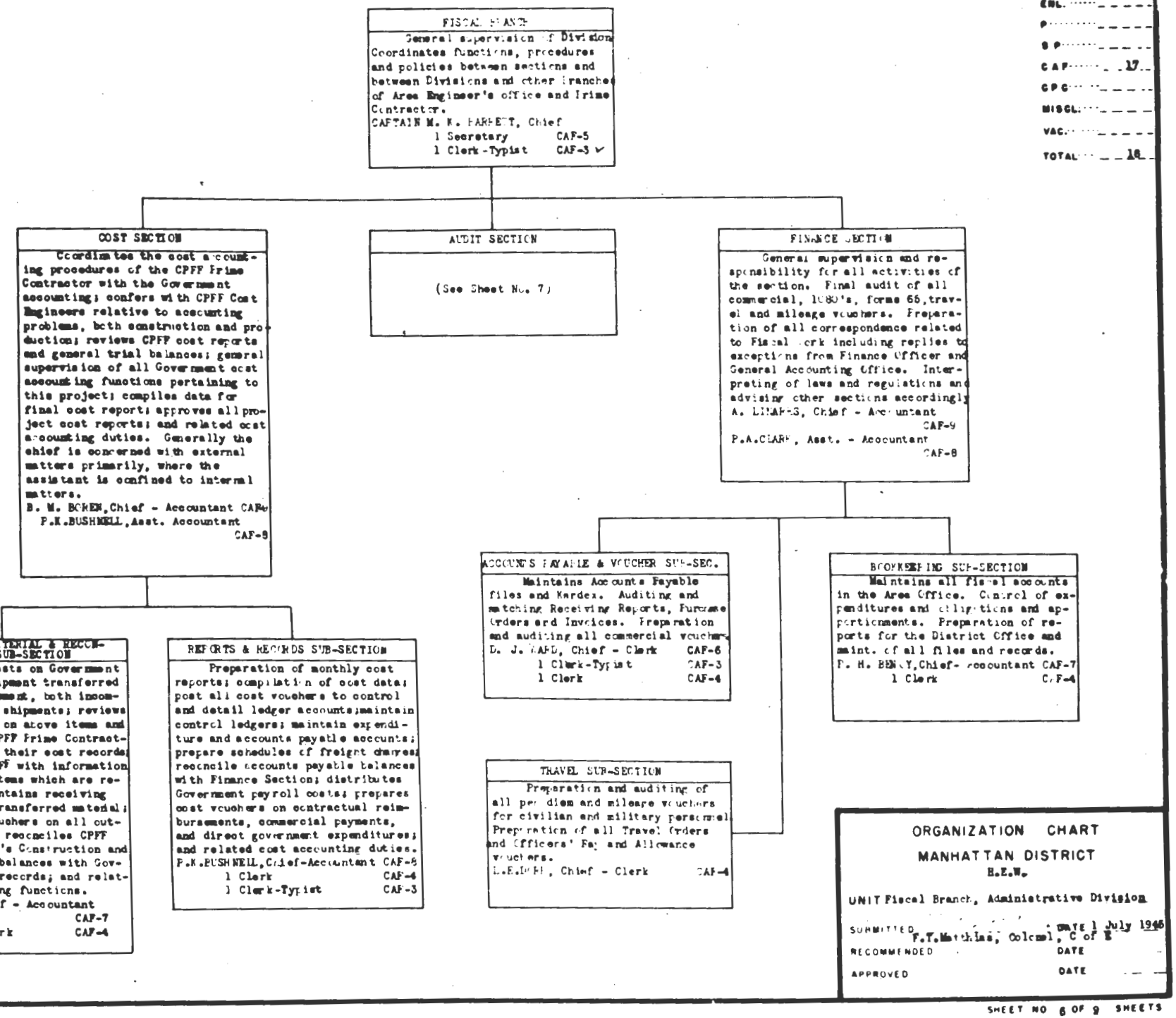
BANK RECONCILIATION AND PROOF OF PAYMENT
C. M. ACTON, Chief - Clerk CAF-6
1 Clerk CAF-4

ORGANIZATION CHART
MANHATTAN DISTRICT
E.E.D.

UNIT Audit Section, Fiscal Br., Admin. Div.
SUBMITTED [signature] DATE 1 July 19[illegible]
F. T. Matthias, Colonel, C of E
RECOMMENDED — DATE —
APPROVED — DATE —

SHEET NO 7 OF 8 SHEETS

PER IL
OFFICERS 1
ENL.
P
S P
C A F 17
C P C
MISCL.
VAC.
TOTAL 18



ORGANIZATION CHART
MANHATTAN DISTRICT
H.E.W.

UNIT Fiscal Branch, Administrative Division

SUBMITTED F.T.Matthias, Colonel, C of E DATE 1 July 1946
RECOMMENDED DATE
APPROVED DATE

[redacted]

PERSONNEL

OFFICERS _____
ENL. _____
P _____
S P _____
C A F 32
C P C _____
MISCL. _____
VAC. _____
TOTAL 32

FISCAL BRANCH

Responsible for the proper functioning and coordination of the work of Audit, Cost and Finance Sections. Supervision of required accounting, reporting, budgeting, estimating and all other financial administration and control over the use and custody of appropriated funds. Advises with the heads of the appropriate operating units at the installation in respect to fiscal requirements and initiates action to secure, augment, or adjust appropriated funds required for accomplishment or furtherance of required work or service at the installation. Supervision of all required or necessary auditing functions at the installation, including cost-plus-fixed-fee contracts.

A.LINARES, Chief - Fiscal Officer CAF-11
1 Clerk-Steno CAF-4

FINANCE SECTION

General supervision and responsibility for all activities of the section. Final audit of all commercial, 1080's, Form 65, travel and mileage vouchers. Preparation of all correspondence related to fiscal work including replies to exceptions from Finance Officer and General Accounting Office. Interpreting of laws and regulations and advising other sections accordingly.

PAUL A.CLARK, Chief-Accountant CAF-9
1 Clerk-Typist CAF-3

ACCOUNTS PAYABLE & VOUCHER SUB-SEC.

Maintains Accounts Payable files and Kardex. Auditing and matching Receiving Reports, Purchase Orders and Invoices. Preparation and auditing all commercial vouchers.

D.J.WARD, Chief - Clerk CAF-6
1 Clerk-Typist CAF-3

BOOKKEEPING SUB-SEC.

Maintains all fiscal accounts in the Area Office. Control of expenditures and obligations and apportionments. Preparation of reports for the District Office and maintenance of all files and records.

PAUL H. BENOY, Chief-Accountant CAF-7
1 Clerk CAF-4

TRAVEL SUB-SEC.

Preparation and auditing of all per diem and mileage vouchers for civilian and military personnel. Preparation of all Travel Orders and Officers' Pay and Allowance vouchers.

E.J.MOORE, Chief - Clerk CAF-4

AUDIT SECTION

Prescribe policies and procedures for operation of the Section with respect to reimbursement of expenditures based on reviews of contracts applicable regulations and working papers as well as discussions with members of the Section, the contractor's staff and other employees and officers of the Area Engineer's Office. Furnish such information as is requested by the General Accounting Office staff with respect to reimbursements. The Chief Project Auditor devotes his time principally to matters of procedure and policy and to matters between the Section and the Contractor. Reviews and approves CPFF purchases. Reviews lump-sum subcontracts and audits requests for payments thereunder. Reviews subcontract cancellation for compliance with Joint Termination Regulations. Reviews contractor's and subcontractors' procedures, audits their accounts to determine all revenue has been passed on to the Government; maintains record of cash receipts; special auditing investigations.

F. L. BAYLESS, Chief - Project Auditor CAF-10
1 Administrative Assistant CAF-7
1 Auditor, Fiscal CAF-7
1 Clerk CAF-4

MISC. AUDIT SUB-SECTION

Control of requests for reimbursement and transmittal of same to Finance Officer for payment. Final audit review of all reimbursement vouchers for form and content. Reviews Purchase Orders drawn against supply contracts for compliance with contract terms. Maintain voucher registers. Bank reconciliation of CPFF bank accounts. Proof of payment all reimbursement vouchers.

C.M.ACTON, Chief - Clerk CAF-6
1 Clerk CAF-5
1 Clerk CAF-4

MATERIAL AUDIT SUB-SEC.

Audits CPFF vouchers covering purchases of materials and transportation charges on same.

J. C. VARNUM, Chief - Superv.Aud. (Matls.) CAF-8

PAY ROLL AUDIT SUB-SEC.

Audits CPFF payroll and related rolls, travel and transfer agreement vouchers. Reviews monthly salaries for conformity with regulations.

F.P.TRACY, Chief - Supv.Aud.(Payroll) CAF-6
1 Clerk CAF-5
2 Clerks CAF-4
1 Clerk CAF-3

FIELD CHECK SUB-SEC.

Spot checks contractor's receiving and shipping. Spot checks attendance of contractor's employees.

J.M.LYNCH, Chief - Clerk CAF-6
1 Checker CAF-4
2 Clerks CAF-5

COST ACCOUNTING SECTION

Responsible for proper application of cost accounting procedures of Prime Contractor and Government; acts as Government liaison agent in matters pertaining to costs and cost accounting; confers with contractors relative to accounting problems; reviews Contractor's cost reports, and general ledger trial balances; general supervision of all cost accounting functions pertaining to this project; responsible for compilation and submission of budget estimates covering project activities; compiles data for use in final cost reports; approves all project cost reports; and related cost accounting duties.

B. M. BOREN, Chief - Accountant CAF-9
1 Clerk-Stenographer CAF-4

BUDGET CONTROL, REVIEWS, AND SPECIAL REPORTS SUB-SECTION

Responsible for the compilation of cost data covering working estimates and preparation of Project Budget Estimate; reviews methods used by CPFF Prime Contractor in maintaining cost accounting records; reviews cost estimates submitted by Contractor and ascertains if costs are properly accumulated against individual estimates; responsible for contacting field or installation employees to ascertain that proper costing of time and materials is being accomplished; responsible for determination of values to be used on materials, supplies, and equipment transferred from the project; compiling data for special reports required for the Cost Section.

IRA D. HARTMAN, Chief - Accountant CAF-8

ACCOUNTING, ALLOCATION, AND REGULAR REPORTS SUB-SECTION

Responsible for proper allocation of cost codes to various documents used as basis for accumulating costs; posting all cost vouchers to control and detail ledger accounts; maintaining expenditure and accounts payable accounts; reconciling accounts payable and expenditure records with Finance accounts; preparation of cost vouchers; reconciling stock accounts; furnishing the CPFF Prime Contractor cost data on Government procured and transferred items; preparation of regular monthly cost reports; reconciling warehouse stock accounts; and related cost keeping duties.

WALTER L. ROEHR, Chief - Accountant CAF-7
1 Clerk CAF-4
1 Clerk CAF-5

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED _____ DATE 3 Oct. 1946
Lt. Col. Frederick J. Clarke, Area Engineer
RECOMMENDED _____ DATE _____
APPROVED [signature] DATE 15 Oct 46

PERSONNEL

OFFICERS _____

ENL. _____

P _____

S P _____

CAF 36

CPC _____

MISCL. 14

VAC. 2

TOTAL 52

ADMINISTRATIVE DIVISION

ACCOUNTABLE PROPERTY OFFICER

ASST. CHIEF OF PROP. BRANCH & DESIG. AGENT

EQUIPMENT & FIELD AUDIT SECTION

Auditing of all property records on all classes of property. Verifying the existence of property, checking the completeness of property records and testing the efficiency of Contractor's consumption of non-catalogue property (Class "C" and Class "B"). Maintenance of all inventories on perpetual inventory basis of all areas controlled and operated which do not come under control of prime contractor, i.e., Hanford, Vernita, Riverland, Midway, 3000 Area, Prison Camp, Priest Rapids and White Bluffs, and off-project accounts.

RICHARD F. HART, Chief - Property Auditor CAF-8

PERPETUAL INVENTORY SUB-SECTION

Maintenance of all inventories on perpetual inventory basis of all areas controlled and operated which do not come under control of prime contractor, i.e., Harford, Vernita, Riverland, Midway, 3000 Area, Prison Camp, Priest Rapids, White Bluffs and off-project accounts.

Lewis E. [illegible], Chief - Clerk CAF-5

5 Clerks CAF-4

1 Clerk CAF-3

4 Clerk-Typists CAF-2

FIELD AUDIT SUB-SECTION

Auditing of all property records on all classes of property. Verifying the existence of property, checking the completeness of property records and testing the efficiency of Contractor's consumption of non-catalogue property (Class "C" and Class "B")

[illegible] J. CASTELLI, Chief - Property Auditor CAF-7

3 Clerks CAF-5

1 Clerk-Typist CAF-2

PROCUREMENT & STOCK ISSUE CONTROL SECTION

Supervises all procurement activities assigned and interprets law and regulations pertaining thereto. Prepares procurement instruments to effect procurement under mandatory contracts, and in the open market. Reviews prime contractor's requisitions and records of purchases for compliance with Government procurement policies and regulations.

H.M. HETZEL, Chief - Administrative Asst. CAF-9

1 Administrative Assistant CAF-7

1 Clerk-Steno CAF-3

1 Clerk-Typist CAF-3

STOCK ISSUE CONTROL SUB-SECTION

Maintenance and control of materials and supplies procedures by means of material orders from prime contractor. Spot checks all materials received by prime contractor; the inspection of inbound shipments. Prepares material orders on Contractor's Stores for property required by Military and Government activities. Prepares purchase requisitions for required property not in Stores. Supervises delivery of property to Military and Government activities. Inspects receipt of inbound shipments as required.

E. H. JACH, Chief - Administrative Asst. CAF-7

1 Clerk CAF-6

1 Inspector (Matl.) CAF-6

1 Inspector (Matl.) CAF-4

3 Clerk-Typists CAF-2

1 Clerk - Vacancy CAF-2

1 Storekeeper CAF-2

2 Laborer $1.22 ph.

EXCESS DISPOSAL TRANSFER SECTION

Responsible for removal of all shipments from this area which are shipped by prime contractor or the Gov't. Supervises preparation of orders for the contractor to ship. Assigns voucher numbers to Shipping Orders. Checks all materials and equipment arriving at Disposal Center. Packs and ships excesses, and stores items which are not excess but will be held for residual camp.

ELM. J. SUHR, Chief - Prop. Dis. Officer CAF-9

1 Property Disposal Officer CAF-7

1 Clerk-Typist CAF-3

1 Clerk-Typist CAF-2

2 Clerk-Typists CAF-2

WAREHOUSE AREA SUB-SECTION

Packing and shipping excesses in Harford Area and storing items which are not excess but are held for residual camp; clearing up construction property left at White Bluffs, Cold Creek, etc., storing machines in Hanford Area, and inspection of same periodically.

M. C. [illegible], Chief - Storekeeper CAF-6

1 Storekeeper CAF-4

2 Carpenters, Shop $1.82 ph.

1 Truck Driver (Trailer Type) $1.76 ph.

1 Truck Driver (Medium) $1.65 ph.

2 Laborers, Warehouse $1.22 ph.

1 Laborer, Warehouse (Vacancy) $1.22 ph.

ORGANIZATION CHART

MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED [signature] DATE 3 Oct. 1946

Lt. Col. Frederick J. Clarke, Area Engineer

RECOMMENDED _____ DATE _____

APPROVED [signature] DATE [illegible]

PERSONNEL
OFFICERS 2
EM.
P
S P 3
C A F 24
G P C
MISCL.
VAC. 2
TOTAL 31

ADMINISTRATIVE DIVISION

ACCOUNTABLE PROPERTY OFFICER

Supervises and directs the recording, inventory, storage, salvage and disposal of Property and the maintenance of all necessary property accounts. Supervises and directs the maintenance of all property accounts maintained by Government Property Office and by contractor. Supervises the audit of contractor's property records. Issues instructions as necessary for shipment of property. Supervises receipt, storage and disposal by contractor of Government property.

CAPTAIN W. J. MORRELL, Chief
1 Clerk-Steno CAF-4
1 Clerk-Typist CAF-3

SPECIAL ASSISTANT

Immediately responsible to the Property Officer for the performance of special assignments and assists in supervision of inventory as directed by the Property Officer.

2nd LT. LEO F. NOPPERT

ASSISTANT CHIEF OF PROPERTY BRANCH AND DESIGNATED AGENT

Responsible to the Property Officer for planning and directing work of Property Branch and coordinating functions of the various units of the Property Branch with other divisions of the office and prime contractor. Acts as Redistribution Officer to dispose of excess or surplus on this project.

BENTON A. DURLEY, JR., Chief - Adm. Asst. CAF-11
C. D. Friswold, Asst. - Adm. Asst. CAF-9
1 Clerk-Steno CAF-3

[illegible] & FIELD AUDIT SEC.

(SEE SHEET #9)

PROPERTY RECORDS SECTION

Supervises maintenance of all property records, checks with cards and files all Receiving Reports and shipping documents, issues all shipping documents on outgoing shipments. Supervises Military, Contractor, Real Estate and Off-Project Accounts.

JOHN T. HOGAN, Chief - Adm. Asst. CAF-7
1 Vacancy, Clerk-Steno CAF-3

EXCESS DISP. TRANS. SECTION

(SEE SHEET #9)

STOCK ISSUE CONTROL SECTION

(SEE SHEET #9)

[illegible] ACCOUNTS SUB-SECTION

Maintenance of register and files of all Receiving Reports issued by Prime Contractor and preparation and maintenance of register on all incoming shipping documents. Filing and maintenance of register on all [illegible] issued by prime contractor for military use.

[illegible] A. FORTE, Chief - Clerk CAF-5
1 Clerk CAF-3
1 Clerk-Typist CAF-3
3 Clerk-Typists CAF-2

CONTRACTOR'S & OFF-PROJECT ACCOUNTS SUB-SEC.

Maintenance of register and files of all Receiving Reports issued by Prime Contractor and preparation and maintenance of register on all incoming shipping documents. Filing and maintenance of register on all [illegible] issued by prime contractors for contractor's use. Maintenance of records on University of Washington and Trail, B.C. accounts.

JOYCE L. LASBY, Chief - Clerk CAF-5
1 Clerk CAF-4
1 Clerk-Typist CAF-3
6 Clerk-Typist CAF-2
1 Vacancy, Clerk-Typist CAF-2

REAL PROPERTY ACCOUNTS SUB-SECTION

Maintenance of records which refer to basic maps, plans and specifications of Buildings and Structures, Real Property and Installed Equipment.

MILLETT B. KEITH, Chief - Clerk CAF-6
1 Engineering Aide SP-7
2 Engineering Aide SP-6
3 Clerk-Typist CAF-2

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works'

SUBMITTED [illegible] DATE 3 Oct. 1946
Lt. Col. Frederick J. Clarke

RECOMMENDED _____ DATE _____

APPROVED [illegible] DATE 15 Oct 46

[redacted]

WAR DEPARTMENT

[redacted]

CORPS OF ENGINEERS, U.S. ARMY

PERSONNEL
OFFICERS
ENL.
P 3
S P
C A F 20
C P C
MISCL. 5
VAC. 2
TOTAL 30

ADMINISTRATIVE DIVISION

CIVILIAN PERSONNEL BRANCH

Plans and directs the civilian personnel program. Supervises and coordinates work performed in the branch sections. Maintains working relationships with operating offices for purposes of assistance, guidance and consultation on civilian personnel matters. Responsible for Administration of programs pertinent to employee morale. Responsible for matters pertaining to classification and wage administration. Conducts studies of causes of absences, grievances, and disciplinary actions. Conducts exit interviews. Prepares job descriptions of new and changed positions and recommends allocations for such positions by service, grade and title; makes recommendations for the correction of misallocations. Participates in locality wage surveys.

J. M. DE MILLE, Chief - Administrative Assistant CAF-9
1 Clerk-Typist CAF-2

ADMINISTRATIVE SECTION

Performs routine processing of personnel actions for accessions, changes, and other personnel operations including efficiency ratings and reductions in force. Maintains central personnel (201) files and employee records. Prepares personnel reports as required. Maintains controls over positions and such controls over actions in process as may be required.

M. M. WELLS, Chief - Clerk CAF-6
1 Clerk-Typist, Vacancy CAF-3
1 Clerk-Typist CAF-2

PLACEMENT SECTION

Anticipates personnel requirements, and insures recruitment and selection of best qualified eligibles. Responsible for preparation and announcement of examinations for local board positions. Responsible for receipt, review and rating of applications. Establish and maintain registers of eligibles and examination files. Furnishes information to the general public on civil service matters.

T.P.MULHOLLAND, Chief - Adm. Asst. CAF-8

TRANSPORTATION BRANCH

Supervises and directs activities of the four sections of the Transportation Branch. Issues all transportation requests and obtains travel reservations. Maintains close liaison with contractor and common carriers on all matters pertaining to transportation.

J.L.DICKSON, Chief-Adm.Asst. CAF-11
1 Clerk CAF-4
1 Truck Driver (Medium) $1.65 p.h.

EQUIPMENT MAINTENANCE SECTION

Supervises and directs the inspection of the care and use of approximately 1600 pieces of government-owned equipment and vehicles on the project. Establishes rates for rental of equipment to contractors and directs care of equipment in compliance with rental contract. Advises Procurement & Stock Issue Control Sec. in securing all types of equipment. Determines equipment that should be excessed or replaced. Screens requisitions for parts and accessories. Maintains equipment records.

G.J.WAGNER, Chief-Mechanical Adv. CAF-10
1 Supv.Asst.(Tools & Equip.) CAF-8
3 Inspectors (Gen. Equip.) CAF-7
1 Inspector (Gen. Equip.) CAF-6
1 Clerk-Steno CAF-5
1 Clerk-Typist CAF-3

FREIGHT SECTION

Responsible for directing movement of all incoming and outgoing freight by rail, express, and truck. Issues and maintains master file of Gov't bills of lading and handles all correspondence pertaining to transportation matters.

A.J.JEWIS, Chief - Adm. Asst. CAF-8
1 Clerk-Typist CAF-1

AIR PATROL SECTION

Responsible for patrolling project and visinity by air. Piloting military and civilian personnel to available transportation lines, i.e., Rail, Airlines, etc.

3 Airplane Pilots P-4
1 Laborer, Warehouse-Vacancy $1.22 ph.

WATER PATROL SECTION

Maintenance of water patrol and ferry for transport of equipment and personnel.

DONALD L. SMITH, Chief, Master (Tug-Class 2) $1.75 ph
1 Master (Tug, Class 2) $1.64 ph.
2 Operators-Motor Boat $1.44 ph.

PAYROLL & CONTROL SECTION

Responsible for all functions covering Civilian payroll and control; the completion of necessary action on forms and papers in connection with appointments, separations, and general changes in employees' pay status, including bonds, tax, and retirement. Acts as War Savings Bond Officer.

S. S. BYERS, Chief - Clerk CAF-4

PAYROLL SUB - SECTION

Establishment and maintenance of individual earnings records for each employee and preparation of all records pertinent thereto

MARCIEL ROLPH, Chief - Clerk-Typist CAF-1

CONTROL SUB-SECTION

Responsible for preparation and maintenance of Payroll Certification Sheets, W. D. 80. Posts all changes to normal pay and deduction cards. Posts and maintains leave record cards.

P. D. LANDIS, Chief - Clerk CAF-4

[redacted]

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Buford Engineer Works

SUBMITTED Frederick J. Clarke DATE 3 Oct. 1946
Lt. Col. Frederick J. Clarke, Area Engineer

RECOMMENDED _____ DATE _____

APPROVED _____ DATE 4 Oct 46

EIDM FORM 424

SHEET NO. 7 OF 10 SHEETS

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

PERSONNEL
OFFICERS 1
ENL. ____
P ____
S P ____
C A F 11
C P C 1
MISCL. ____
VAC. 2
TOTAL 15

ADMINISTRATIVE DIVISION

Responsible for the planning and directing of all work performed in branch offices of the Division. Coordinates policies and plans with the various divisions in this office and with the Prime Contractor

MAJOR J. W. VAN HOY, Chief
N. D. Sturgis, Asst., Adm. Asst. CAF-13
2 Secretaries CAF-5

CIVILIAN PERSONNEL BRANCH

(SEE SHEET #7)

TRANSPORTATION BRANCH

(SEE SHEET #7)

FISCAL BRANCH

(SEE SHEET #10)

PROPERTY BRANCH

(SEE SHEET #8)

CONTROL BRANCH

Collects and analyzes data on work methods and procedures; recommends improvement toward better utilization of personnel and facilities and greater efficiency of operation; proposes changes in organizational structure to clarify responsibilities and eliminating duplication and overlapping activities; establishing and maintaining a system for standardizing and controlling forms throughout the office. Screening travel requests, overtime reports, reports of Long Distance Telephone calls for conformance to policy. Supervising and coordinating space allocations, reservations, and adjustments. Insuring the prompt submission to higher authority of recurring reports by maintenance of adequate records and controls. Conducting special surveys and analyses on various administrative matters as directed. Directs uniform plan.

1 VACANCY, Chief, Management Analyst CAF-11

STATISTICS AND PROCESS SECTION

Receives statistical reports and maintains records on office operations; analyses and interprets statistical data and prepares or supervises the preparation of reports; reviews statistical needs of operating units of the installation and designs standard operating procedures; examines records and reports maintained by installation to eliminate unnecessary record keeping and files; determines essentiality of internal recurring reports and forms; assigns control approval symbols and numbers to authorized reports and forms; standardizes forms and controls design and reproduction of same; plans and executes special statistical studies on progress or status of office operations; makes recommendations on same.

ROBERT W. RICHARDSON, Chief - Administrative Asst. CAF-7
1 Vacancy - Clerk CAF-6

MANAGEMENT ANALYSIS SECTION

Collects and analyzes data on work methods and procedures; conducts work simplification studies and surveys; recommends improvements toward better utilization of personnel and facilities and greater efficiency of operations; proposes changes in organizational structure to clarify responsibilities and to eliminate duplication and overlapping activities; collects major directives and other papers on office activities for use as historical source data; analyzes same and makes necessary recommendations; makes such special studies requested by various elements of office.

JOHN MOORE, Chief, Procedural Analyst CAF-9
1 Clerk-Stenographer CAF-4

OFFICE SERVICE BRANCH

Directs and supervises the work performed by the Mail & Records Section and the Classified Files Section.

AUDREY E. GEORGE, Chief - Clerk CAF-4

MAIL AND RECORDS SECTION

Responsible for receipt, classification, and indexing of large volumes of correspondence and reports. Responsible for filing and delivery of correspondence.

MARJORIE D. TRACY, Chief - Clerk CAF-5
2 Clerks CAF-3
1 Messenger CPC-2

CLASSIFIED FILES SECTION

Responsible for proper cataloging, filing, issuing and receiving of classified documents and correspondence.

1 Clerk CAF-3

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED [illegible] DATE 3 Oct. 1946
Lt. Col. Frederick J. Clarke, Area Engineer
RECOMMENDED ____ DATE ____
APPROVED [illegible] DATE 15 Oct 46

EIDM FORM 424

SHEET NO. 6 OF 10 SHEETS

PERSONNEL

OFFICERS	1
ENL.	
P	5
S P	
C A F	6
C P C	31
MISCL.	1
VAC.	
TOTAL	44

ENGINEERING & MAINTENANCE DIVISION

SAFETY BRANCH

Supervises and administers Community, Industrial and Construction Safety Programs, and Fire Prevention and Protection Program; organizes and coordinates accident prevention activities of the Safety Division. Also inspection of classified building in Operations Areas.

V.H.HOLMQUIST, Chief- Engr.(Safety) P-4

1 Engineer(Safety) P-3

FIRE PROTECTION SECTION

Serves as consultant to the Safety Director on all fire prevention and protection matters. Responsible for the inspection of all construction and operations activities for fire hazards. Insures adequate fire fighting equipment and personnel in all areas on the project. In direct charge of the Hanford Patrol Dept.

V.B.[illegible],Chief-Engr.(Safety) P-3

HANFORD PATROL DEPT.

3 Patrolmen	CPC-8
2 Patrolmen	CPC-7
26 Patrolmen	CPC-6

COMMUNITY MANAGEMENT BRANCH

Reviews invitations to bid, and contracts on all community facilities, reviews renegotiation on facility contracts and all regulations for operation and maintenance of the community. Maintains records on facilities, leases and financial statements, establishes rentals on houses and dormitories and makes allocations to military and civilian employees, approves leases for same for the Contracting Officer, handles all real estate matters and assists all real estate matters and assists Federal Prison Industries in the care and operation of all agricultural lands within the project.

NORMAN G. FULLER,Chief-Adm.Asst. CAF-11

1 Agronomist	P-3
1 Adm. Asst.	CAF-7
1 Clerk-Steno	CAF-4

COMMUNICATIONS BRANCH

Responsible for the operation and supervision of cryptographic security, teletype, telephones, and all equipment required therefor. Acts as Liaison Officer between the Area Engineer, Signal Corps, Prime Contractor and other agencies of the Army.

LT. FRED COULSON, Chief

1 Engineer (Telephone)	P-5
1 Radio Repairman	$1.45 ph.
1 Clerk-Steno	CAF-3

TELETYPE SECTION

1 TELEGRAPHIC TYPEWRITER OPR., Chief Vacancy	CAF-4
1 Telegraphic Typewriter Opr.	CAF-3
1 " " "	CAF-2

ORGANIZATION CHART
MANHATTAN DISTRICT

UNIT Hanford Engineer Works

SUBMITTED [signature] DATE 3 Oct. 1944
Lt. Col. Frederick J. Clarke, Area Engineer

RECOMMENDED ________ DATE ________

APPROVED [signature] DATE 15 Oct 1944

[redacted]

HANFORD ENGINEER WORKS

POWER DEPARTMENT

CONFIDENTIAL

Superintendent - F. M. Acker
- Assistant Superintendent - H. H. Miller
  - Chief Supervisor - L. G. Ahrens - (100-B Area)
    - Area Supervisor - G. R. Calhoun
      - Engineer (Assign.) - (Results)
      - Water Supervision - R. D. Frank
        - Shift Supervisors - J. L. Burke; F. L. Nacke; M. P. Johnson; H. M. Cleveland; H. M. Pickering
        - Foremen - Bldgs. 181, 182, 183 - B. E. Clark; S. G. Moores; J. W. Frymier; A. C. Whiteside
        - Foremen - Bldgs. 185, 190, 108, 105 Valve Pit - R. J. King; H. K. Hale; R. L. Lance; K. E. Harding
      - Senior Supervisor - J. R. Misenheimer (Steam Plant)
        - Shift Supervisor - K. W. McKay
          - Shift Foremen - H. N. Petty; G. Watkins; J. D. Turner
    - Senior Supervisor - J. W. Brands - (100-D Area)
      - Senior Supervisor - E. D. Petty
        - Engineer (Assign.) - J. P. Langan; F. J. Smith; (Results)
        - Water Supervisor - A. Frew
        - Senior Supervisors - N. H. Skarshaug; J. A. Haaga; J. C. McLaughlin; A. C. Hyde
        - Shift Supervisor - C. E. Harkins
        - Foremen - Bldgs. 181, 182, 183 - L. S. Cave; T. A. Askew; W. L. Bowen; R. B. Crum; E. D. Ferguson
        - Foremen - Bldgs. 185, 190, 108 - E. R. Hill; J. M. Hale
        - 105 Valve Pit - C. A. Meadows
      - Senior Supervisor - E. R. Keplinger (Steam Plant)
        - Shift Supervisor - L. L. Ellis
          - Shift Foremen - C. J. Williams; G. R. Hale
    - Assistant Chief Supervisor - F. L. Hunt (100-F Area)
      - Senior Supervisor - F. P. Britson
        - Engineer - H. S. Livingston (Results)
        - Water Supervisor - K. F. Priest
        - Senior Supervisors - W. A. Neeland; D. N. Mathis (Water Plant)
        - Shift Supervisors - E. W. Wilson; H. M. Huff; R. McDonald
        - Foremen - Bldgs. 181, 182, 183 - T. P. Vardell; H. R. Hicks; J. R. Cartmell; N. V. Starkebaum; L. H. Crawford
        - Foremen - Bldgs. 185, 190, 108, 105 Valve Pit - G. C. Edwards; K. R. Leifermann; E. L. Van Kirk; H. A. Jones
      - Senior Supervisor (Steam)
        - Shift Supervisors - H. C. Nelson; H. F. Ross
          - Shift Foremen - J. H. Tarpenning; J. H. Dryer; E. T. Tausch
    - Chief Supervisor - F. O. Doughty (200, 300, 700, 1100 Areas)
      - Senior Supervisor - M. R. Miller (200 Areas)
        - Senior Supervisor - G. J. Baird (Ventilation)
        - Engineer - C. G. Rose (Results)
        - Shift Supervisors - J. P. O'Connell; H. R. Kaeser; J. A. Kelly; P. H. Klute
          - Shift Foremen - C. R. McMillan; E. F. Smith; A. L. Henning; J. C. Wright; L. L. Shaw
        - Water Supervisor - (200 East Area)
          - Shift Foreman - H. G. Harder; L. P. Buma; F. Cox, Jr.; J. C. Richards
      - Senior Supervisor - R. S. McNeil (300, 700, 1100 Areas)
        - Shift Foremen - E. O. Brown; K. F. Erickson; R. Clements; J. H. Palmer
        - Senior Supervisor - J. A. Jones

PAGE 6 OF 20

CONFIDENTIAL

HANFORD ENGINEER WORKS

TECHNICAL DEPARTMENT

(Cont.)

Chief Supervisor - L. Squires - (200 Area)

- Area Supervisor - J. E. Willard - (Section Supervisor - Process Chemistry)
  - Senior Supervisors - J. H. Peterson, W. H. Sullivan
    - Chemists 4 & Jr. Technologists 2 - A.H. Angerman 2; R.P.S. Black 2; J. L. Dreher 4; B. F. Faris 4; G. Leader 4; J. A. Swartout 4; H. R. Hoeckstra 4; W. G. Johnson 2; H. J. Kamack 2; W. L. Kay 4; M. Lindner 2; D. G. Pye 2; W. F. Schneller 2; G. W. Sears 4; H. T. Siefen 4; G. W. Stahl 4
- Area Supervisor - M. F. Acken - (Section Supervisor - Plant Assistance)
  - Senior Supervisor 1 & Engineer (Chem.) 7 - R. S. Apple 1; R. H. Beaton 7; W. F. Underwood 7
    - Engineers (Chem.) - E. B. Christiansen; J. A. Gerster; E. R. Gilbert; C. H. Holt; P. H. Lehman; L. C. Peery; C. R. Straley; J. B. Work
  - Senior Supervisor - M. E. Bishop - (Section Supervisor - Semi-Works)
    - Senior Supervisor - A. F. Rupp
      - Jr. Technologists 2, Engineer (Chem.) 7 - T. A. Arehart 2; E. M. Clapp 2; F. A. Gluckert 2; I. R. Higgins 2; E. F. Hamilton 7; J. R. Jones 7; E. F. Klenke 7; C. P. Norbert 2; E. J. Reber 2; M. M. Wainscott 7; W. G. Schmidt 2

Area Supervisor - K. G. Jones - (300 Area)

- Metallurgist 9, Tech. Specialist 6, & Chemist 4 - R. P. King 6; E. A. Smith 4; M. B. Vordahl 9
  - Jr. Technologist 2
  - Engineers (Chem.) 7, Engineers (Assgn.) 8 - F. H. Beck 2; T. J. Armstrong 7; R. J. Schier 8; W. B. Stevenson 7; R. M. Treco 2

Engineer (Assignment) - W. O. Switzer - (Reports & Standards)

SPECIAL ASSIGNMENT - REPORTS & RECORDS

Technical Specialist - T. W. Hauff*

- Engineer (Chem.) - D. R. Treadwell

* Reports to Assistant Manager

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July 1, 1945

HANFORD ENGINEER WORKS

TECHNICAL DEPARTMENT

Superintendent - P. W. Crane

- Chief Supervisor - D. M. Smith
  - Assistant Chief Supervisor - G. W. Struthers
    - Senior Supervisor - R. E. Curtis
      - Chemist - W. W. Mills - (Apparatus and Supplies)
    - Senior Supervisor - R. M. Coleman - (Control 221-224-231-271)
      - Senior Supervisors - G. W. Fassett R. B. Fenninger D. W. Haught
        - Shift Supervisors - J. T. Christy
          - R. J. Hale P. D. Jost W. R. Lewis
          - J. W. Hall L. M. Knights E. W. Rebol
          - M. K. Harmon J. T. Lassiter J. T. Kirchmer
          - M. E. Jackson R. F. Lescher D. F. Shepard
        - Jr. Technologist - P. F. X. Dunigan
      - Area Supervisor - E. C. Morris - (Essential Material, 100 and 300 Area Control)
        - Senior Supervisor - W. A. Briggs - (Water Laboratories)
          - Shift Supervisors - W. R. Conley J. H. M. Miller T. E. Wilson
          - Shift Supervisors - G. B. O'Connor R. E. Kelly
            - Chemists - H. P. Hanisch J. Patterson
        - Senior Supervisor - B. F. Butler - (Methods Improvement and Statistics)
          - Shift Supervisors 3 & Chemists 4 - J. W. Reynard 3 L. W. Safranski 4
            - R. I. Martens 3 R. E. Kitson 4
            - Chemists 4 & Jr. Technologists 2 - B. J. Eiseman 4
              - W. W. Garrison 4 A. K. Parlour 4 A. F. Stehney 2
              - D. W. Gay 4 R. S. Rosenfels 4 E. F. Story 4
              - W. W. Marshall 4 R. N. Smith 4 D. E. Waters 4
            - Jr. Technologists - J. R. Fine C. W. Hammond
              - J. E. Guillotte H. J. Paas E. R. Wegener
            - Training Instructor - D. McElveny
        - Area Supervisor - M. R. Hoff
- Chief Supervisor - Hood Worthington - (100 Area)
  - Physicist - W. E. Jordan - (Section Supervisor - Physics)
    - Physicists 5, Jr. Technologists 2, Technical Specialists 6, & Engineers (Chemical) 7 -
      - H. A. Fowler 5 J. Marshall 5 U. M. Staebler 5
      - P. F. Gast 5 R. L. Menegus 7 R. B. Stewart 2
      - W. R. Kanne 5 E. B. Montgomery 5 C.W.J. Wende 6
      - S. Kuniansky 7 J. J. O'Connor 5 J. M. West 5
      - L. W. Marshall 5 G. V. Packer 2 J. A. Wheeler
    - Area Supervisor - C. P. Kidder - (Section Supervisor - Water & Corrosion - Engineering)
      - Engineers (Chemical) 7, Tech. Specialists 6, Engineers (Assigned) 8, & Sr. Supervisor 1 -
        - J. S. Allen 1 D. H. Edwards 8
        - S. G. Bankoff 7 R. H. Osterloh 8 W. K. Woods 6
        - Engineer (Chemical) - P. A. Dahlen - (Flow Laboratories)
          - Jr. Technologists 2 & Engineers (Chem.) 7 -
            - W. K. Alexander 2 W. M. Coons 7 E. W. O'Rorke 2
            - L. G. Anderson 2 M. J. Szulinski 2 J. E. Dunbar 7

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S DEPARTMENT

[redacted]

Superintendent - W. C. Kay

Assistant Superintendent - J. E. Cole

Chief Supervisor

Assistant Chief Supervisor - J. D. Ellett - (T & U Plants)

Area Supervisors - K. C. Vint J. M. Frame

Senior Supervisors - V. R. Chapman Myron Davis J.V.P. Torrey
E. F. Curren R. O. Mehann I. B. Venable

Shift Supervisors - L. F. Hardy A. S. Mowry
J. R. Barber J. H. Hershey W. B. Reed
O. F. Beaulieu F. A. Hollenbach P. G. Rhoades
A. P. Boston H. W. Huntley H. F. Riley
A. J. Bradway P. A. Levernier W. C. Shissler
V. D. Donihee F. R. Lewis R. E. Toczek
J. M. Gillette W. N. Mobley J. P. Turping

Senior Supervisor - C. A. Gosline - (Meteorological)

Shift Supervisors - J. F. Mattingly O. H. Newton

Engineers (On Assignment) - R. D. McGreal
A. Hester L. M. Meeker
D. E. Jenne B. D. Wilson

Chief Supervisor - F. B. Vaughan - (B Plant)

Assistant Chief Supervisor -(B Plant)- W. K. MacCready

Area Supervisors - (B Plant) J. Lower P. F. Elliott

Senior Supervisors - C. J. Poynter O. C. Schroeder
A. C. Cox T. Prudich S. D. Smiley
A. R. Maguire M. W. Riser F.A.R. Stainken

Shift Supervisors - S. I. Allen J. P. Hood L. N. Rynd
E. C. Bell M. M. Hoover O. V. Smiset
G. K. Carpenter R. M. Larson E. F. Smith
J. R. Cathcart R. R. Messick W. M. Wierman
C. T. Groswith M. A. Phillips R. W. Winter
G. E. Halm E. R. Read W. A. Wright

Chief Supervisor - J. J. Urban - (231 Building)

Assistant Chief Supervisor

Area Supervisor - S. A. McNeight

Senior Supervisors - R. D. Caney E. A. Foskett
L. C. Evans J. S. Rumsey

Shift Supervisor - W. S. Andrus

Engineers (On Assignment) - J. G. Attanas R. W. Harvey
L. I. Brecke H. H. Hubble
J. B. Chaney H. K. Strassel
J. F. Donnelly R. L. Voigt

Engineers (On Assignment) - G. W. Bird
E. S. Bowers
J. P. Connor

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HANFORD ENGINEER WORKS

P DEPARTMENT

[redacted]

Superintendent - C. N. Gross

Assistant Superintendent - R. R. Lunt

Chief Supervisor - F. H. Dinsen - (B Area)

Area Supervisor - T. B. Kelly - (General)

Area Supervisor - W. P. McCue - (Production)

Area Supervisors - J. A. Byers - F. B. Friend - G. A. Solberg - G. M. Watters

Senior Supervisors -

W. R. Diver D. S. Lewis W. P. Nickalson
A. A. Janos R. D. Miller P. Richards

Shift Supervisors - J. S. Shipp - K. T. Perkins

Chief Supervisor - K. W. French - (D Area)

Area Supervisor - W. Grinus, Jr. - (General)

Assistant Chief Supervisor - E. F. Miller, Jr. - (Production)

Area Supervisors - E. H. Judkins - E. P. Lee, Jr.

Senior Supervisors -

J. T. Baker F. E. Mask
J. P. Conlon I. R. Smith
P. E. Lowe W. W. Windsheimer

Shift Supervisors -

T. B. H. Anderson F. A. Kay
W. A. Blanton D. C. Montgomery

Chief Supervisor - C. A. Priode - (F Area)

Area Supervisor - K. C. Mearns - (General)

Assistant Chief Supervisor - G. E. McMillan - (Production)

Area Supervisors - L. A. Bidez - H. L. Henry - S. Paige - W. E. Winter

Senior Supervisors -

G. V. Atkison H. J. Pecheux H. T. Wells
G. B. Carlton G. A. Peterson R. F. Foster

Shift Supervisors - B. M. Kaspar - S. L. Nelson - L. H. Wallace

Assistant Chief Supervisor - W. M. Sloan - (300 Area)

Area Supervisor - A. Gawthrop - (Fabrication)

Foreman - J. H. Kelly - (Metal Fabrication)

Shift Supervisor - R. K. Wahlen - (Preparation)

Senior Supervisor - J. R. Dahl - (Can & Dip)

Foreman - W. H. Timmerman

Foreman - W. R. Kirk

Area Supervisor - P. E. Collins - (Inspection)

Shift Supervisor - D. D. Drake - (Materials)

Foreman - L. Mikkelsen - (Material Handling)

Shift Supervisor - F. A. Snyder - (Inspection)

Engineer Assignment - D. L. DeNeal - (Control)

Shift Supervisor - W. G. Barnett

Senior Supervisor - W. P. Rankin - (Statistics)

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July 1, 1945

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HANFORD ENGINEER WORKS

STAFF ORGANIZATION CHART

~~THIS DOCUMENT CONSISTS OF 20 PAGES~~
~~No. 24 OF 24 COPIES, SERIES A~~

Manager - W. O. Simon

- Assistant Manager - B. H. Mackey
  - Production Superintendent - M. H. Smith
    - P Department Superintendent - C. N. Gross
    - S Department Superintendent - W. C. Kay
  - Superintendent - Technical Department - P. W. Crane
  - General Superintendent - T. N. Stapleton
    - Service Department Superintendent - W. T. Cloud
  - Works Engineer - L. A. Darling
    - Power Department Superintendent - F. M. Acker
    - Maintenance Department Superintendent - R. Hare
    - Electrical Department Superintendent - H. A. Carlberg
    - Instrument Department Superintendent - W. P. Overbeck
    - Transportation Department Superintendent - R. T. Cooke
  - Medical Department Superintendent - W. D. Norwood, M. D.
  - Chief Accountant - T. W. Brown

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B-10

July 1, 1945

HANFORD ENGINEER WORKS [redacted]

ELECTRICAL DEPARTMENT

- Superintendent - H. A. Carlberg
  - Assistant Superintendent -
    - Engineer (Assignment) - H. F. Harman (Office)
    - Area Engineer - A. G. Lambert (100 Areas)
      - Assistant Area Engineer - C. C. Hinson (100 B)
        - Foremen - G. L. Givan - C. G. Allen - C. D. Stahl
      - Assistant Area Engineer - R. H. Lee (100 D)
        - Foremen - H. E. Bennett - D. B. Bagley
      - Assistant Area Engineer - E. E. Weyerts (100 F)
        - Foremen - R. R. Palmer - K. G. Robinson - F. J. McClure
      - Shift Engineers - R. B. Britton - P. E. Engels - R. L. Sandrock
      - Engineer (Assignment) - H. E. Evans
    - Area Engineer - W. J. Dowis (200, 300, 700 and 1100 Areas)
      - Assistant Area Engineer - H. A. Remaly
        - Craft Foreman - B. J. Willingham (Acting Shift Engineer)(200 W and 200 E Areas)
          - Foremen - T. D. Gibbs - R. F. Smith
        - Shift Engineer - E. M. White (200 E)
          - Foremen - E. H. Fulton - E. F. Leinberger
        - Shift Engineer - C. A. Mally (300, 700 and 1100 Areas)
          - Foremen - D. C. Wheeler (700 and 1100 Areas)
            - A. L. Vosmer (300 Area)
        - Engineer (Assignment) - C. R. Bergdahl (200 and 300 Areas - General)
        - Engineer (Assignment) - H. R. Hughes (700 and 1100 Areas - General)
        - Foreman - Special Assignment - W. J. Stubblefield
    - Area Engineer - J. C. Badenoch (Distribution)
      - Assistant Area Engineer -
        - Engineer (Assignment) - R. E. Leith (Substation Operators)
        - Shift Engineer - W. E. Houston (Line Maintenance)
          - Foremen - E. L. Givens - P. G. Sease - W. H. Hopkins
        - Shift Engineer - P. W. Carter (Substation Maintenance)
          - Foremen - H. M. Osborn - E. G. Dosker
        - Engineers (Assignment) - E. J. O'Black (Plant Distribution)
          - R. F. Haynes (Relaying and Protection)
        - Foreman - G. R. McKinney (Communications)

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MAINTENANCE DEPARTMENT

(Continued)

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Area Engineer - R. V. Pierce (300-700-1100 Areas)

- Engineer (Assignment) - John R. Fallows (Field-300)
  - Foreman - R. L. Disbrow — M. L. Sappenfield
- Shift Engineer - John M. Heffner, Jr. (700-1100)
  - General Foremen - J. S. Crowder — M. F. Walker
    - Foremen - B. C. Bain — W. O. Patmor — Paul Sevedge
      H. L. Fisher — J. R. Goggin — R. V. Work
      J. E. Hocutt — E. L. Woodburn — W. A. Rupes

Area Engineer - Wm. Dunnington (Projects & Methods)

- Engineer (Assignment) - O. E. Snyder (Design-100, 300, 700 Areas)
  - Engineers (Assignment) - C. W. Anderson — D. M. Paige
- Engineer (Assignment) - W. D. Webb (Design-200 Areas)
  - Engineers (Assignment) - J. R. Blizzard — R. Y. Hays
- Engineer (Assignment) - P. A. Hoenie (Methods & Control - Group Leader)
  - Engineers (Assignment) - C. F. Haeske (Material Control)
    G. R. Moore (Industrial)
    W. D. Smuts (Lubrication)
    E. Bell, Jr. (Industrial)
    M. E. Yates (Lubrication)
  - Shift Engineer - L. L. Sphar
- Shift Engineer - E. O. Dean (Methods & Control-Group Leader)
  - Engineers (Assignment) - C. T. Kessell (Industrial)
    O. H. Lang (Industrial)
    A. S. Withrow (Industrial)
    J. H. Smithson (Refrigeration)
  - Shift Engineer - F. W. Caney — S. H. Quist
- Engineer (Assignment) - C. H. Storms (Design & Drafting)
  - Engineers (Assignment) - C. Buchols — A. C. Heckenlaible
    R. B. Sturgis — J. V. Lawler

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MAINTENANCE DEPARTMENT

[redacted]

Superintendent - Ross Hare

- Assistant Superintendent - A. J. Schwertfeger

  - Area Engineer - S. G. Crews (100 Areas)

    - Assistant Area Engineer - R. R. Meyers (100 B)

      - General Foreman - R. J. Browning

        - Foremen - L. M. Nunley
          J. C. Groom — H. B. Shafer
          C. H. Bell — J. P. Coffey
          R. Fraser — H. M. Smith

    - Assistant Area Engineer - J. W. Nageley, Jr. (100 D)

      - General Foremen - R. W. Pegalu — F. R. Vincent

        - Foremen - C. E. Geer — D. P. Madsen
          R. R. Harris — R. M. Scott
          C. A. Brenner — J. A. Jensen
          B. E. Page — J. L. Gastkill

    - Engineer (Assignment) - J. F. Heberer (Acting Assistant Area Engineer 100 F)

      - General Foreman - E. E. Johnson

        - Foremen - D. W. Clark — W. G. Sickman
          E. D. Allen — J. M. McCartney
          Z. H. Mayberry — R. Musselman
          R. W. Millmott — E. G. Panther

      - Shift Engineers - V. W. Wood
        F. B. Kramer — S. F. Schure
        K. K. Campbell — E. H. Kolts

  - Area Engineer - R. S. Wangelin, Jr. (200 Areas)

    - Assistant Area Engineer - S. M. Carmack (200 N)

      - General Foreman - E. W. Baker (Shops)

        - Foremen - W. E. Finfrock — B. M. Wright
          G. L. Smith — L. Bellande
          J. E. Venne — R. E. Bowe

      - General Foreman - J. B. Hughes (Field)

        - Foremen - C. L. Poe
          O. B. Palmer — J. N. Stewart
          H. W. Persons — R. E. Kelly

    - Assistant Area Engineer - R. T. Jessen (200 E)

      - General Foreman - V. C. Langford

        - Foremen - L. J. Scoggins — J. M. Blackburn
          D. D. Sivills — W. L. Soffe
          C. C. Wilson — P. E. L. Nussbaum

      - Shift Engineers - G. W. Dorsey, Jr. — P. J. Moroz
        J. M. Poindexter — W. E. Davis

      - General Foremen - J. F. Lee
        W. P. Creasey — O. L. Carter

        - Foremen - C. L. Hinkson — H. C. Savage
          J. W. Calderwood — E. L. Merryman
          M. L. Robertson — J. V. Clatworthy
          G. Shoberg — C. I. McCrarey

      - Engineer (Assignment) - W. C. Schrader

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July 1, 1945

HANFORD ENGINEER WORKS

INSTRUMENT DEPARTMENT

Superintendent - W. P. Overbeck
- Assistant Superintendent - H. J. Bowman
  - Area Engineer - Kemper Stone - (100 Areas)
    - Assistant Area Engineer - W. E. Neff - (100-B Area)
      - Shift Engineer - J. W. Kuhn
      - Shift Supervisors - C. O. Clemetson, E. S. Day, Jr.
      - Craft Foreman - P. M. Fleming
    - Assistant Area Engineer - E. Hilgeman - (100-D Area)
      - Shift Engineer - B. L. Weller
      - Craft Foremen - F. K. Peck, A. Hughes, J. D. McCullough
    - Assistant Area Engineer - S. C. Lloyd, Jr. - (100-F Area)
      - Shift Engineer - T. M. Clement
      - Shift Supervisor - W. A. Richards
      - Craft Foreman - M. W. Hoferer
  - Area Engineer - L. E. Dunkelberger - (200 Areas)
    - Assistant Area Engineer - W. W. Porter, Jr. - (200-E Area)
      - Shift Supervisors - H. B. Crowning, K. W. Phaling
      - Craft Foreman - C. D. Phelps
    - Assistant Area Engineer - H. E. Ostdahl - (200-W Area)
      - Shift Engineers - R. C. Mann, W. J. Chelgren, A. J. Mosley
      - Shift Supervisor - J. A. Jaffe
      - Engineers (Assignment) - J. F. Coughlin, B. E. Woodward, C. Clark, R. G. Jackson
  - Area Engineer - J. Q. duPont - (Shops)
    - Assistant Area Engineer - O. D. Merrill - (300 Area)
      - Shift Foremen - T. R. Cartmell, A. W. Hildebrandt
      - Engineer (Assignment) - J. M. Holeman
    - Assistant Area Engineer - W. T. E. Elmendorf - (700 Area)
      - Shift Supervisor - J. G. Haines
      - Engineer (Assignment) - F. M. Stratton (Electronics)
      - Engineers (Assignment) - N. T. Hildreth, R. C. Limburg (Tube manufacture)
      - Engineers (Assignment) - C. W. Botsford, D. D. Friel (Optical)
  - Engineer (Assignment) - I. S. Taylor (Material Control)
  - Engineer (Assignment) - E. W. Molloy (Special Problems)

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Chief Supervisor - H. M. Parker (Health Instrument)

- Senior Supervisor - C. M. Patterson (Survey)
  - Engineers (Assignment) - J. G. Bradley, W. A. McAdams, J. M. Smith, R. B. Bixler, M. L. Mickelson, L. D. Turner
- Senior Supervisor - L. L. German (100 Areas)
  - Senior Supervisor - C. W. Badger (100 B H.I.)
    - Engineers (Assign.) - L. V. Barker, H. G. Ruppert, J. G. Myers
  - Engineer (Assign.) - L. J. Cherubin (100 D H.I.)
    - Engineers (Assign.) - L. F. Albright, M. T. Lewis, N. W. Hope
  - Senior Supervisor - J. E. Greever (100 F H.I.)
    - Engineers (Assign.) - R. G. Clough, Jr., F. L. Vencill
- Senior Supervisor - F. P. Seymour (200 Area)
  - Engineers (Assign.) - C.R.E. Merkle, Jr. (200 T, H.I.)
    - Engineers (Assign.) - R. A. Hultgren, J. P. Cooke, P.R. Nelson, C.B. Foster
  - Senior Supervisor - C. G. Lewis (200 B, H.I.)
    - Engineers (Assign.) - P. C. Jerman, R. E. Olson, L. C. Roos, F. G. Tabb
  - Shift Supervisor - 292
- Senior Supervisor - J. W. Morris (231 Building)
  - Engineers (Assign.) - G.W. Chastain, H.A. Moulthrop, L.D. Pahnke, W. Singlevich
- Senior Supervisor - W. H. Durum (300 Area)
  - Engineers (Assign.) - R.W. Chamberlain, W.H. DeLany, Jr., G.P. Kessel, R.A. Brown
- Senior Supervisor - P. E. Lindvig (Site Survey)
  - Engineers (Assign.) - W.F. Bulow, J.M. Campbell, D.H. Stevenson, J.W. Anderson
- Engineer (Assign.) - P. L. Eisenacher (Laundry and Decontamination)

Senior Supervisor - C. C. Gamertsfelder (Special Studies)

- Senior Supervisor - J. W. Healy

Senior Supervisor - E. S. Whittaker (Personnel Meters)

- Senior Supervisor - J. C. Hart
  - Shift Supervisors - J.C. Ledbetter, H.F. Hanson, P.M. Walker (Pencils)
  - Shift Supervisors - E.J. Galbraith, D. L. Wheadon (Badges)

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July 1, 1945

HANFORD ENGINEER WORKS

MEDICAL DEPARTMENT

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Superintendent - W. D. Norwood, M.D.

- Assistant Superintendent - T. L. Williams, M.D. (Village Medical)
  - Hospital Services
    - Senior Supervisor - E. Fariss (Dietetics)
    - Pharmacist
    - Senior Supervisor - E. Sikes (Nurses)
      - Senior Supervisor - M. Lee (Industrial)
      - Senior Supervisor - E. Vosmer (Village Medical)
      - Senior Supervisor - M. Sharpless (Hospital)
        - Senior Supervisor - A. McDonald (Obstetrics)
        - Senior Supervisor - R. Swift (Anesthesia)
        - Shift Supervisors- V. Bridges, E. Andrews (Surgery)
        - Shift Supervisor - M. Gavin (Isolation)
        - Shift Supervisor - W. Rosander (Medical)
      - Shift Supervisors - M. Albright, K. Kenworthy, B. Bieker
      - Shift Supervisor - J. Gerking (Public Health)
  - Specialists
    - Senior Physician - L. L. Davis, M.D. (Eye)
    - Medical Specialist - M. R. Petersen, M.D. (Obstetrician)
    - Medical Specialists- A. D. Wert, M.D., D. V. Shuman, M.D. (Pediatrician)
    - Medical Specialist - L. F. Hulsman, M.D. (Ear, Nose & Throat)
    - Senior Medical Specialist - T. J. Bulger, M.D. (Surgeon)
    - Radiologist
    - Principal Physician - R. R. Sachs, M.D. (Public Health)
      - Engineers - R. E. Kircher, L. G. Koch, J. I. Maston (Assignment)
  - Medicine
    - Senior Medical Specialist - J. M. Wetherhold, M.D.
    - Principal Physician - J. S. Taylor, M.D.
    - Principal Physician - L. B. Harville, M.D.
    - Principal Physician - T. E. McGauvran, M.D.
    - Principal Physician - T. J. Albertowicz, M.D.
  - Senior Supervisor - E. C. Berry (Bacteriology)
  - Senior Supervisor - H. H. Pitluck, D.D.S. (Dentists)
    - Physician - A. M. Lauterstein, D.D.S.
    - Senior Physician - C. A. Hill, D.D.S.
    - Physician - A. F. Gardner, D.D.S.
    - Physician - J. F. Saylor, D.D.S.
    - Senior Physician - H. Nevins, D.D.S.
- Assistant Superintendent - S. T. Cantril, M.D. (Industrial Medical)
  - Senior Physician - P. A. Fuqua, M.D.
    - Senior Supervisor - B. A. West (Laboratories)
    - Senior Supervisor - J. A. Quigley, M.D.
      - Senior Physician - J. C. Miller, M.D. (Pre-employment)
      - Physician - J. A. deFreitas, M.D. (Plant Medical)
      - Senior Physicians - G. L. Beyer, M.D., D. H. Smith, M.D. (Plant Medical)

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HANFORD ENGINEER WORKS

SERVICE DEPARTMENT (PROTECTION)

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General Superintendent - T. N. Stapleton

- Assistant Chief Supervisor - E. L. Richmond (Protection)
  - Division Supervisor - H. E. Scott (Security-Investigation)
    - Section Supervisor - G. D. Barr (Investigations)
    - Section Supervisor - T. B. Farley (Security)
      - Section Supervisor - H. F. Johnstone
  - Chief Supervisor - C. C. Tallman (Patrol)
    - Division Supervisor - T. O. Brewer (200 Areas)
      - Captain - S. F. Campbell, Jr. (200 East Area)
        - Lieutenants - H. S. Morse, W. E. Spicer, C. E. Rekonen
          - Sergeants - A. E. Carey, W. M. Cox, H. L. Pack, J. C. Yost, V. F. Stuart, J. A. Schmitz, J. B. Potter
      - Captain - E. T. Fidler (200 West Area)
        - Lieutenants - H. Norris, J. W. VanCott, W. A. Welch
          - Sergeants - J. A. Bowman, G. D. Bartimus, H. S. Davis, J. R. Evans, G. R. Reese, H. L. McClure
    - Division Supervisor - H. W. Strook (100 & 300 Areas)
      - Captain - E. W. Sutherland (100-B Area)
        - Lieutenants - C. R. Epple, H. C. Pollard
          - Sergeants - E. S. Andrew, K. L. Farrier, C. L. Luebber, V. E. Stull, C. D. Casto, L. B. O'Brien, C. E. Turner
      - Captain - W. H. Pillsbury (100-D Area)
        - Lieutenants - C. Norbratten, C. Uhrenholdt, D. P. White
          - Sergeants - B. W. Allen, R. O. Beard, F. J. Bihner, L. F. Patty, F. T. Sykes, J. E. Coleman
      - Captain - W. A. Ziegler (100-F Area)
        - Lieutenants - C. C. Haelsig, C. E. Jones, R. E. Watts
          - Sergeants - G. V. Aasal, G. M. Everett, W. E. Jorgenson, V. A. Olson, J. C. Clark, J. D. Barnett
      - Captain - C. A. Whaley (300 Area)
        - Lieutenants - H. L. Smith, W. F. Polk
          - Sergeants - J. W. Cheadle, G. L. McGilbry, W. A. Meyer, T. M. Wagner
    - Division Supervisor - W. P. Allen (Richland Area & Training)
      - Captain - Lt. A. A. Layman, In Charge (Richland Area)
        - Sergeant - A. E. Barron (Traffic and Accident Investigation)
        - Lieutenants - C. H. Overdahl, J. K. Holmes, A. L. Meyer
          - Sergeants - J. O. Cole, R. H. Kays, L. M. Linkous, L. H. Lowery, A. F. Novotny, D. D. Rakes, W. W. Kerr
        - Lieutenant - J. S. Johnson (Crime Prevention)
          - Sergeant - L. M. Lyall
      - Captain - L. D. Wright (Training)
        - Lieutenants - W. H. Roos, J. R. Ward
          - Sergeants - H. E. Faulkner, L. C. McGuinn, H. E. Thomas
    - Division Supervisor - E. Weston (Administration)
      - Lieutenant - Sgt. C. F. Klepper, In Charge (Supply)
        - Sergeant - A. J. Barnett (Supply)
        - Sergeant - H. F. Simpson (Equipment, Automotive)
        - Lieutenant - C. G. Hicks (Communications, Master Key, Passes, Emergency Officers)
          - Sergeants - W. J. Rosenberger, L. K. Woods, F. C. Dawson, H. L. Hackwith, W. S. Hutchison
      - Captain - A. L. Funk (Personnel & Records)
        - Lieutenant - L. G. A. Casey (Records)
        - Lieutenant - A. G. Mainland (Personnel)

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Assistant Superintendent - C. Henningsen (Village)
- Division Supervisor (General) H. F. Price (Housing)
  - Section Supervisor (General) M.T. Binns (Ten. Service & Work Order Control)
  - Foreman (General) D. L. Anderson (Dormitories)

Chief Supervisor - G. C. Houston (Services)
- Division Supervisor (General) S. B. Badgett (Performance of Community Fcltn.)
  - Section Supervisors (General) R. J. Pederson (Commercials)
  - F. J. Ogle (Commercials)
- Division Supervisor (General) C. F. Barnes (Public & Semi-Public Bldgs.)
  - Section Supervisor (General) J. A. Ricker (Miscellaneous Activities)
  - Section Supervisor (General) D. H. Berst
  - Section Supervisor (General) R. M. White (Contracts & Negotiations)

Chief Supervisor - J. S. McMahon (Miscellaneous)

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July 1, 1945

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HANFORD ENGINEER WORKS
SERVICE DEPARTMENT

Superintendent - W. T. Cloud
- Assistant Superintendent - F. V. Albrechtson - (Plant)
  - Chief Supervisor - J. B. Daniel - (Personnel)
    - Asst. Chief Supervisor
      - Division Supervisor- (Industrial Relations) W. Nightingale, Jr.
        - Industrial Relations Counselors - S. E. Linter
          - Charles Wood
        - Section Supervisors - (Industrial Relations) C. F. Stuart- (Welfare)
          - G. C. Truog
        - Section Supervisor - (Industrial Relations) L. P. Shannon-(Training)
          - Training Instructor - A. E. Carlson
        - Section Supervisor-(Industrial Relations) George Thom-(Selective Service)
      - Section Supervisor - (Employment) W. T. Pope
    - Division Supervisor - (Personnel) H. P. Shirrefs - (Special Assignment)
      - Section Supervisor - (General) C. P. Honnecker - (Central Files)
  - Chief Supervisor - J. T. Brown - (Safety & Fire Protection)
    - Division Supervisor - (Safety) R. E. Johnson
      - Engineers - (Safety) R. E. Harlowe
        - C. G. Holmes — L. R. Riggs
        - J. L. Gabriel — H. W. Wilkins
      - Engineer - (Fire) H. P. Jones
      - Section Supervisor - (Fire) R. H. Hare
        - Fire Chiefs - C. L. Olson - (Village)
          - J. J. Whicher - (Plant)
        - Asst. Fire Chiefs - P. J. Quane
          - W. D. Sharpnack
        - Fire Captains - H. W. Anderson
          - H. R. Cannoles — G. A. Hirst
          - F. F. Rutt — P. S. Smith
        - Fire Lieutenants - W. G. Boice — L. P. Masek
          - L. J. Bresina — C. A. Nevins
          - V. B. Carey — E. R. Oder
          - R. L. Fortune — M. G. Pearson
          - D. A. Foster — P. P. Perkins
          - R. H. Gabriel — K. I. Peterson
          - A. H. Lee — J. A. Price
          - W. C. Littrell — J. E. Sherwood
          - G. H. Lovell — H. E. Trosper
          - E. L. Lynch — R. Wilkinson
          - K. McElveny — W. A. Wright
  - Division Supervisor (General) T. B. Mitchell
    - Foremen (Laundry) G. H. McCammon
      - G. W. Powell
    - Foremen (Janitor) R. C. Dunlop — J. L. Norwood
      - W. G. Freeland — J. J. Quinn
      - W. Maguffee — P. P. Springer

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July 1, 1945

HANFORD ENGINEER WORKS

TRANSPORTATION DEPARTMENT

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Superintendent - R. T. Cooke

Assistant Superintendent - D. E. Hudson

Chief Supervisor - Automotive -

Senior Supervisor - W. L. Straughen

Shift Supervisor - R. L. McGahee

General Foreman - P. P. Barr

Truck Foremen	O. F. Davis	M. E. Miller
Shift Foremen	C. R. Cole	M. D. McGruder
	E. H. Dean	A. P. Mitchell
	B. A. DeGood	R. W. Sheckler
	C. L. Eaton	M. M. Skeen
	J. E. English	L. G. Solberg
	H. E. Groff	

Chief Supervisor - E. G. Jones - (Repairs)

Garage Foremen	H. W. Brent	L. A. Powell
Shift Foremen	F. W. Bell	C. S. LaPorte
	Virgil Bond	N. L. Lewis
	O. R. Coglizer	J. L. Perry
	J. C. Ensor	

Chief Supervisor - M. F. Rice - (Labor)

Senior Supervisor - R. L. Myers

Shift Supervisor - C. W. Funk

General Foremen	L. S. Johnson	G. B. Mullins
	C. E. Lange	C. H. Watkins
Labor Foremen	G. E. Acorn	W. B. Hinson
	G. T. Adams	T. M. Jones
	F. C. Ayer	W. R. Jones
	E. G. Banwell	D. E. Lane
	R. I. Bissell	A. J. McKinnon
	R. L. Brown	J. E. Millard
	H. M. Cook	F. E. Miller
	F. Doyle	R. R. O'Leary
	H. Emmons	K. J. Parchen
	H. Gagnebin	J. Phillips
	C. E. Gant	L. B. Russell
	J. Garcia	H. M. Terpstra
	C. J. Glode	L. O. Williams

Chief Supervisor - W. E. Dixson — A. E. Kellum - (Traffic)

Assistant Chief Supervisor	M. D. Edson	
Yardmaster	F. A. Lynn	R. W. Cushing
Shift Supervisor	J. G. Thomas	
Shift Foreman	L. Evert	

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HANFORD ENGINEER WORKS

SUMMARY

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NON-EXEMPT

Senior Clerk	36
Clerk	155
Junior Clerk	129
Secretary	15
Chief Stenographer	4
Stenographer	94
Typist	42
Receptionist	1
Messenger	9
Chief Telephone Operator	2
Telephone Operator	53
Telegraph & Teletype Operator	2
Office Machine Operator	43
Office Helper	130
Nurse	89
Medical Technician	27
Medical Attendant	2
Helper	178
Laborer	170
Cook	1
Inspector	32
Electrician	174
Groundman	5
Instrument Mechanic	136
Draftsman	15
Junior Engineer	3
Estimator	9
Mechanic	493
Painter	40
Tool & Store Attendant	17
Chief Operator	34
Operator	836
Coal Handler	26
Auto Mechanic	83
Oiler	47
Crane Operator	11
Tractor Operator	15
Equipment Inspector	8
Employment Investigator	6
Truck Driver	68
Patrolman	526
Radio Operator	23
Matron	4
Safety Inspector	4
Fire Protection Inspector	7
Employment Interviewer	2
Locomotive Operator	10

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HANFORD ENGINEER WORKS

SUMMARY

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EXEMPT

Manager	1
Assistant Manager	1
Production Superintendent	1
General Superintendent	2
Works Engineer	1
Superintendent	10
Assistant Superintendent	11
Chief Supervisor	21
Assistant Chief Supervisor	9
Area Supervisor	29
Senior Supervisor	95
Water Supervisor	3
Shift Supervisor	114
Area Engineer	11
Shift Engineer	17
Assistant Area Engineer	27
Foreman	217
Yardmaster	2
Engineer (Assignment)	110
Chemical Engineer	22
Junior Technologist	30
Metallurgist	1
Physicist	10
Chemist	24
Division Supervisor	11
Section Supervisor	16
Counselor	2
Fire Chief	2
Assistant Fire Chief	2
Fire Captain	5
Fire Lieutenant	24
Fire Protection Engineer	1
Safety Engineer	5
Patrol Captain	8
Patrol Lieutenant	26
Patrol Sergeant	58
Chief Accountant	1
Assistant Chief Accountant	3
Chief Clerk	2
Assistant Chief Clerk	3
Supervisor	4
Assistant Supervisor	3
Senior Clerk	2
Physician	16
Medical Specialist	6
Training Instructor	2
Technical Specialist	5
TOTAL	976

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July 1, 1945

HANFORD ENGINEER WORKS

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ACCOUNTING DEPARTMENT

Chief Accountant - T. W. Brown

- Assistant Chief Accountant - S. D. Ewing
  - Assistant Chief Accountant - J. W. Simmons (Special Assignment)
    - Senior Clerk - Accounting - R. H. Hopkins
      - Senior Clerk - Accounting - R. G. Simpson
    - Chief Clerk - Accounting - J. I. Moffett
      - Assistant Chief Clerk - Accounting (Special Assignment)-R.L. Meekins
      - Assistant Chief Clerk - Accounting - R. M. Brown
        - Supervisor - Accounting - W. S. Roe
  - Assistant Chief Accountant - E. E. Murphy
    - Chief Clerk - Operations - R. W. Carriger
      - Assistant Chief Clerk - Operations - W. E. Babcock
        - Supervisor - Stores - D. C. Brooks
          - Assistant Supervisor - Stores - C. J. Sheeran
        - Supervisor - Purchasing - C. E. Poehlein
          - Assistant Supervisor - Purchasing - W. A. Bearden
        - Supervisor - Accounting - R. S. Quarles
          - Assistant Supervisor - Accounting - I. D. Behymer

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HANFORD ENGINEER WORKS

SUMMARY

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NON-EXEMPT
(Continued)

Seamstress	3
Custodian	1
Lifeguard	2
Conductor	7
Switchman	10
Trackman	10
Weighmaster	1
Assistant Weighmaster	1
Shuttle Driver	227
Photographer	1
Fireman	76
Laundry Operator	2
Janitor	79
Laundry Attendant	8
Chemist	100
Engineer	1
Analyst	3
Laboratorian	141
Laboratory Attendant	1
Technician	2
Process Inspector	1
TOTAL	4493

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May 1, 1946

1. D. A. Miller
2. T. N. Stapleton
3. A. J. Schwertfeger
4. R. M. Evans
5. J. N. Tilley
6. M. H. Smith
7. C. M. Gross
8. W. C. Kay
9. F. B. Vaughan
10. W. D. Norwood, M.D.
11. R. Hare
12. S. D. Ewing
13. W. T. Cloud
14. E. L. Richmond
15. C. V. Dodge

16 through 21. The Area Engineer

22. W. A. Smith
23. THX Wilmington File
24. 700 Area File
25. Extra

HEW - ORGANIZATION CHART

Please substitute the attached Hanford Engineer Works Organization Chart for that dated March 1, 1946, returning the obsolete chart promptly to C. P. Hennecker, 700 Area File.

/s/ T. N. STAPLETON
T. N. STAPLETON
ASSISTANT MANAGER

TNS:fb
Attachment

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This document contains information affecting the national defense of the United States within the meaning of the espionage act, U.S. C., 5 31 and 32, as amended. Its transmission or the revelation of its con tents in any manner to an unauthorized person is prohibited by law.

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May 1, 1946

HANFORD ENGINEER WORKS

STAFF ORGANIZATION CHART

Manager - D. A. Miller

- Assistant Manager - T. N. Stapleton
  - Production Superintendent - M. H. Smith
    - F Department Superintendent - C. H. Cross
    - B Department Superintendent - F. B. Vaughan
  - Technical Department Superintendent - W. C. Kay
  - Service Department Superintendent - W. T. Cloud
  - Protection Department Assistant Superintendent - E. L. Richmond
  - Works Engineer - R. Hare
    - Power Department Superintendent - F. M. Acker
    - Maintenance Department Superintendent - A. J. Schwertfeger
    - Electrical Department Superintendent - H. A. Carlberg
    - Instrument Department Superintendent - W. F. Overbeck
    - Transportation Department Superintendent - H. T. Cooke
  - Medical Department Superintendent - W. D. Norwood, M. D.
  - Chief Accountant - S. D. Ewing

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May 1, 1946

HANFORD ENGINEER WORKS

P DEPARTMENT

Superintendent - C. N. Gross

Assistant Superintendent - R. R. Lunt

Chief Supervisor - C. A. Priode - B Area
Area Supervisor - L. A. Hides
Senior Supervisors - G. E. Carlton W.P.Nicklasen
Shift Supervisors - M. A. Laybourne E.W.O'Rorke C.G.Lewi

Chief Supervisor - K. W. French - D Area
Assistant Chief Supervisor - Production - W. P. McCue
Area Supervisors - E.H.Judkins
P.E.Lowe W.W.Windsheimer
Senior Supervisors - J. T. Baker D. S. Lewis
Shift Supervisors - J.G.Bradley J.H.M.Miller K.T.Perkins
Foreman - H. E. Berg

Chief Supervisor - G. E. McMillan - F Area
Assistant Chief Supervisor - General - E. F. Miller
Assistant Chief Supervisor - Production - J.H.Warren
Area Supervisors - H. L. Henry A.A.Janes M.J.Pecheux H.T.Wells
Senior Supervisors - R. T. Foster C.A.Petersen
Shift Supervisors - B.M.Kasper E.A.Webener
J.E.Groover L.H.Wallace H.S.Whittaker

Assistant Chief Supervisor - W. M. Sleem - 300 Area
Area Supervisor - F. E. Friend
Senior Supervisor - Metal Preparation & Recovery - F. E. Jochen
Shift Supervisor - Extrusion, Outgassing & Mech. - J.S.Shipp
Foreman - Materials and Metal Preparation - L. Mikkelsen

Senior Supervisor - Canning & Dipping - J. R. Dahl
Shift Supervisor - Canning & Dipping - R. K. Wahlen
Foreman - Canning Preparation - W. R. Kirk
Foreman - Bended Can Lines - W. H. Timmerman
Engineer (Assignment) - Unbonded Can Lines - D. L. DeNeal

Senior Supervisor - Inspection, Control & Recovery - T.B.H.Anderson
Shift Supervisor - Inspection, Control & Recovery - W. A. Hinz
Shift Supervisor - Inspection & Recovery - F. A. Snyder
Shift Supervisor - Control, Bldg. 306, Chip Recovery - E.L.Wal

Senior Supervisor - Statistics - W. P. Rankin
Shift Supervisor - W. G. Barnett

Assistant Chief Supervisor - Process Control & Training Group - E. P. L
Senior Supervisor - R. D. Miller
Shift Supervisor - D. C. Montgomery

Assistant Chief Supervisor - Special Hazard Control - A. H. Mellett

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May 1, 194[illegible]

HANFORD ENGINEER WORKS

S DEPARTMENT

Superintendent - F. B. Vaughan

- Assistant Superintendent - J. D. Ellett
  - Chief Supervisor - T Plant - W. K. MacCready
    - Supervisor in Training - J. T. Lassiter
    - Assistant Chief Supervisor - T Plant - K. C. Vint
      - Area Supervisors - M. Davis, V. K. Chapman
        - Senior Supervisors - E. C. Bell, J. H. Gillette, W. N. Mobl[illegible]; L. F. Hardy, C. A. Gosline, F. Moss; H. W. Huntley, J. H. Hershey, J. P. Turp[illegible]
          - Shift Supervisors - A. P. Beaton, P. C. Rhod[illegible]; J.R.Barber, A. S. Henry, R. E. Tees[illegible]; O.F.Beaulieu, W. B. Reed, W. A. Wrig[illegible]
        - Engineers (Assignment) Meteorological - D. E. Jenne, A. Hester; J. R. Pine, L. M. Mesh[illegible]; B. D. Wilson
  - Chief Supervisor - B Plant - R. S. Bell
    - Assistant Chief Supervisor - B. Plant - S. D. Smiley
      - Area Supervisors - B Plant - J. M. Frame, H. C. Mahann
        - Senior Supervisors - R. H. Wheeler, M. W. Riser; R. D. Carey, C. J. Paynter, O. V. Smise; C. T. Crosswith, T. Prudich, F.A.R.Stain[illegible]
          - Shift Supervisors - S. T. Allen, J. F. Hood, L.W.Rynd[illegible]; C. K. Carpenter, F. R. Lewis, E.F.Smit[illegible]; C. E. Halm, M. A. Phillips, W.M.Wier[illegible]
  - Chief Supervisor - 231 Building - J. E. Mahder
    - Supervisors in Training - M. E. Jackson, S. G. Smolen
    - Area Supervisor - E. A. Fockett
      - Senior Supervisors - J. S. Ramsey, L. I. Brooks, R. L. Voigt
        - Shift Supervisors - H.H.Hubble, J. F. Donnelly; J. C. Attenas, J.B.Chaney, H. K. Strassel
  - Shift Supervisor - (Records) - V. D. Donihee
    - Engineers (Assignment) - E. J. Reber, J. F. Connor

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HANFORD ENGINEER WORKS

May 1, 1946

TECHNICAL DEPARTMENT

Superintendent - W. C. Kay

- Chief Supervisor - Laboratories - C. W. Struthers
  - Assistant Chief Supervisor - R. E. Curtis
    - Area Supervisor - (Control 200 Area) - R. B. Fenninger
      - Senior Supervisors - J. T. Christy, F.F.X. Dunigan, L. M. Knights
        - Shift Supervisors -
          - O.P.Amacker, M.K.Harmon, E. W. Rebol
          - L.A.Berry, L.F.Kendall, H. F. Matthiesen
          - N.R.Chellew, J.T.Kirchner, H. W. Murray
          - J.W.Hall, R.F.Loscher, D. F. Shepard
          - P. E. Vandervoort
        - Chemist - P. B. Fisk
    - Area Supervisor - (Essential Material - 100,300 Area Control) - W.A.Briggs
      - Shift Supervisors - D. O. Ebenhack, R. J. Hale, T. E. Wilson
        - R. D. Fletcher, W. N. Koop, J. S. Stoakes
      - Chemists - H. P. Hanisch, J. Patterson
    - Senior Supervisor (Methods Improvement and Statistics) - B. F. Butler
      - Chemists -
        - J. K. Figenshau, D.A. King
        - I. S. Dubes, D. W. Gay, W.W. Mills
        - H. H. Burton, W. H. Johnston, C.E. Shafer
      - Training Instructor - D. E. McElvany
- Chief Supervisor - 100-300 Areas - W. E. Jordan
  - Assistant Chief Supervisor - Plant Assistance, Engineering - C. F. Kidder
    - 100 Area - Engineering - R. H. Osterlah 1, W. K. Woods 1
      - W. R. Lewis 1
    - 100 Area - Water & Corrosion - P. A. Dahlen 2
      - W. K. Alexander 2, L.G.Anderson 2, J.E.Dunbar 2, M. J. Smulinski 2
    - 300 Area - Metallurgy - R.J.Schier 1, E.A.Smith 2, M.B.Verdahl 3
      - L. P. Bornwasser 1, R. M. Campbell 2, W.F.Kattner 2
      - T. S. Jones 2, R. M. Treco 4, R.D.McCreal 2
    - 100 Area - Plant Assistance - Physics - F.F.Gast 5, W.R.Kanne 5, U.M.Staebler 5
      - J. K. Guillotte 4, E. L. Menegus 1, E. E. Montgomery 5
    - 100 Area - General Physics - C.W.J.Wende 5
      - H. A. Fowler 5, J.J.O'Connor 5, G.V.Packer 1, J.M.West 5, W.O.Switzer 1
- Chief Supervisor - 200 Areas - G. E. Deserti
  - Senior Supervisor - Plant Assistance 221 Bldg. - R. S. Apple
    - Chemist - J. F. Clifford
  - Engineer (Assignment) - Plant Assistance 224 Bldg. - R. H. Beaton
    - Engineer (Chem.) - Plant Assistance 224 Bldg. - F. H. Lehman
  - Engineer (Chem.) - Plant Assistance 221 Bldg. - J. B. Work

1 - Engineer (Assignment) 2 - Engineer (Chemical) 3 - Metallurgist
4 - Jr. Technologist 5 - Physicist 6 - Technical Specialists

REPORTS & RECORDS

T. W. Hauff - Technical Specialist*
- [redacted] - R. M. Coleman - Area Supervisor

* Reports directly to Management.

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May 1, 1946

HANFORD ENGINEER WORKS

POWER DEPARTMENT

Superintendent - F. M. Acker

- Assistant Superintendent - H. H. Miller
  - Chief Supervisor - 100-B,D,F Areas - H. F. Measley
    - Engineer (Results) - 100-B,D,F Areas - J. P. Langan
    - Water Supervisors - 100-B,D,F Areas - W. A. Conley, Jr. H. H. Skarshaug*
  - Assistant Chief Supervisor - 100-B Area - W.W.Pleasants** (Supv. in Training)
    - Senior Supervisors - Shift - R. L. Lance H. M. Cleveland M.P.Johnson J. D. Turner H. K. Hale
      - Shift Supervisors - Bldgs. 185, 190, 108, 105 Valve Pit - R. J. King P. J. Crowder F. L. Reber
      - Foremen - Bldgs. 181, 182, 183, 184 - S. G. Moores J. W. Frymier B. E. Clark H. C. Crose A. C. Whiteside
    - Senior Supervisor - Steam - F. L. Wacks
  - Assistant Chief Supervisor - 100-D Area - A.Frew
    - Area Supervisor - J. C. Mclaughlin
      - Senior Supervisors - Shift (Water Plant) - C. E. Harkins J. A. Haaga D. N. Mathis J. M. Hale I. L. Ellis C. A. Meadows
        - Shift Supervisors - Bldgs. 185, 186, 189, 190, 108, 105 Valve Pit - L. E. Cave E. R. Hill J. A. Church R. B. Crum
        - Foremen - Bldgs. 181, 182, 183 - W. L. Bowen F.J.Smith W.B.Zilar C. M. Neal T.A.Askew E.D.Ferguson
      - Senior Supervisor - Steam - E. R. Keplinger
        - Shift Supervisors - Bldg. 184 - C.J.Williams R.Jenkins C.R.Smith G.R.Hale K. W. McKay
  - Assistant Chief Supervisor - 100-F Area - F. P. Britson
    - Area Supervisor - K. F. Priest
      - Senior Supervisors - Shift (Water Plant) - H. M. Huff J. H. Dwyer G. C. Edwards E. W. Wilson H.F.Livingston K.R.Leifermann
        - Shift Supervisors - Bldg. 185, 189, 190, 108, 105 Valve Pit - J.R.Cartmell K.L.Van Kirk H.R.Hicks H.A.Jones
        - Foremen - Bldgs. 181, 182, 183 - K.J.MacLeod R.H.Hayward C.P.Jones E.V.Starkebaum
      - Senior Supervisor - Steam - R. McDonald
        - Shift Supervisors - Bldg. 184 - E.T.Tausch C.R.Eastwood J.H.Tarpenning H.C.Nelson G.Watkins

* Special Assignment
** Temporary Assignment

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May 1, 1946

HANFORD ENGINEER WORKS

POWER DEPARTMENT

(Continued)

Chief Supervisor - 200, 300, 700, 1100 Areas - J. A. Todd

Engineer (Results) - 200, 300, 700, 1100 Areas - H. A. Kramer

Area Supervisor - 200-E and 200-W Areas - H. G. Harder

Senior Supervisor - 200-W Area - G. R. McMillan

Shift Supervisors - E. F. Smith J. C. Wright J. H. Palmer

N. J. Schmitt J. P. O'Connell L. P. Shaffner

Senior Supervisor - 200-E Area - P. H. Klute

Shift Supervisors - Fred Cox, Jr. L. F. Bunn A. L. Henning K. G. Riley

Assistant Chief Supervisor - 300, 700, 1100 Areas - G. R. Calhoun

Senior Supervisor - 300, 700, 1100 Areas - H. E. Petty

Shift Supervisors - C. G. Rose R. Clement

V. I. Woodruff K. F. Eriksen L. Goodwin

Senior Supervisor - A. C. Hyde - (Leave of absence)

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May 1, 1946

HANFORD ENGINEER WORKS

MAINTENANCE DEPARTMENT

Superintendent - A. J. Schwertfeger

- Assistant Superintendent - L. C. Ahrens
  - Area Engineer - (100 Areas) - J. F. Heberer
    - Assistant Area Engineer - (100-B) - R. R. Meyers
      - General Foreman - R. J. Browning (Spec. Assignment)
    - Assistant Area Engineer - (100-D) - J. W. Hageley, Jr.
      - Foremen - C. E. Geer, B. E. Page, C. A. Bremer, J. C. Groom, H. B. Shafer
    - Assistant Area Engineer - (100-F) - K. K. Campbell
      - Foremen - J. A. Jensen, C. H. Bell, R. W. Willmott, J. P. Coffey, K. E. Harding, R. M. Scott
    - Shift Engineers - S. F. Schure, F. B. Kramer, W. Seeburger, V. W. Wood
    - General Foreman - E. E. Johnson
      - Foremen - R. Musselman, D. W. Clark, E. D. Allen, Z. H. Mayberry
  - Area Engineer - (200 Areas) - E. C. Ramsauer
    - Assistant Area Engineer - R. T. Jessen
      - General Foreman - (200-W) - J. B. Hughes
        - Foremen - C. L. Poe, O. B. Palmer, B. M. Wright, J. N. Stewart, W. E. Finfrock, G. L. Smith
      - General Foreman - (200-E) - J. F. Lee
        - Foremen - J. M. Blackburn, W. L. Soffe, P. E. L. Nussbaum
      - Shift Engineers - W. E. Davis, E. H. Kolts, R. Y. Hays, D. C. Keck
        - Shift Foremen - J. V. Clatworthy, G. L. Shoberg, E. I. McCrarey, H. C. Savage
  - Area Engineer - (300-700-1100 Areas) - K. D. Wallace
    - Assistant Area Engineer - J. M. Heffner, Jr.
      - General Foreman - (300) - E. W. Baker
        - Foremen - M. L. Sappenfield, J. W. Calderwood
      - General Foreman - (700-1100 Areas) - J. S. Crowder, M. F. Walker
        - Foremen - B. C. Bain, H. W. Persons, L. Bellande, P. Sevedge, R. L. Vaught, W. M. Rupea, J. R. Goggin, H. L. Fisher, J. L. Gastkill, J. E. Hocutt, E. L. Woodburn, E. L. Merryman
  - Area Engineer - (Engineering Section) - W. D. Webb
    - Assistant Area Engineer - F. W. Caney
      - Engineer Assignment - (Design 100-300 Areas) - C. W. Anderson
      - Engineer Assignment - (Design 200 Areas) - C. H. Holt
        - Engineer Assignment - J. P. Cooke, D. I. Millett, M. M. Wainscott
      - Engineer Assignment - (Design 700-1100 Areas) - H. F. Peterson
        - Engineer Assignment - C. H. Buchols, J. V. Lawler, R. B. Sturges
      - Engineer Assignment (Methods & Control Group Leader) - E. O. Dean
        - Engineer Assignment - F. Bowman, M. E. Yates, C. F. Haeske, O. H. Lang, J. T. Lloyd, G. R. Moore, J. H. Smithson, C. T. Kessell, E. S. Bell, Jr.

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May 1, 1946

HANFORD ENGINEER WORKS

ELECTRICAL DEPARTMENT

Superintendent - H. A. Carlberg

- Assistant Superintendent - J. W. Brands
  - Area Engineer - 100 Areas - R. E. Weyerts
    - Assistant Area Engineer - 100-B - C. C. Hinson
      - Foreman - G. L. Givan
    - Assistant Area Engineer - 100-D - P. R. Engels
      - Foreman - H. E. Bennett
    - Assistant Area Engineer - 100-F - R. B. Britton
      - Foreman - R. R. Palmer
    - Engineers - E. J. O'Black C. D. Stahl
  - Area Engineer - 200, 300, 700, 1100 Areas - W. J. Davis
    - Assistant Area Engineer - 200-E - E. M. White
      - Foremen - E. F. Leinberger - A. L. Vosmer
    - Assistant Area Engineer - 200-W - H. F. Harman
      - Foremen - H. F. Smith W. J. Stubblefield
    - Assistant Area Engineer - 300,700,1100 - C. E. Bergdahl
      - Foremen - T. D. Gibbs (300) - D. C. Wheeler (700-1100)
    - Shift Engineer - Plant Telephone - B. J. Willingham
      - Foreman - L. S. Howard
    - Engineer - 700 - 1100 Areas - General - H. R. Hughes
  - Area Engineer - Distribution - J. C. Badenoch
    - Assistant Area Engineer - H. A. Remaly
      - Engineer - Substation Operators - E. E. Leith
        - Foreman - V. R. Griffith
      - Shift Engineer - Line Maintenance - W. E. Houston
        - Foremen - E. J. Agen W. H. Hopkins P. G. Sease
      - Shift Engineer - Substation Maintenance - H. E. Evans
        - Foremen - H. M. Osborn L. G. Doskey
      - Engineer - R. F. Haynes (Relaying & Protection)
      - Foreman - Communications - G. R. McKinney

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May 1, 1945

HANFORD ENGINEER WORKS

INSTRUMENT DEPARTMENT

Superintendent - W. P. Overbeck

- Assistant Superintendent - H. J. Bowman
  - Area Engineer - 100 Areas - Kemper Stone
    - Assistant Area Engineer - 100-B - E. Hilgeman
      - Craft Foreman - C. C. Clampton C. D. Phelps
    - Assistant Area Engineer - 100-D Area - W. M. Mathis
      - Craft Foreman - P. E. Fleming J. D. McCullough
    - Assistant Area Engineer - 100-F Area - S. C. Lloyd, Jr.
      - Craft Foreman - E. E. Day, Jr. - W. A. Richards
    - Engineer (Assignment) - T. L. Clement
  - Area Engineer - 200 Areas - H. E. Ostdahl
    - Assistant Area Engineer - 200 Areas - W. W. Porter, Jr.
      - Craft Foreman - 200-E Area - F. K. Pool P. E. Cunningham
      - Craft Foreman - 200-W Area - H. C. Mann - K. W. Phaling
  - Area Engineer - Shops - J. Q. du Pont
    - Assistant Area Engineer - Shops - O. D. Merrill
      - Craft Foreman - 300 Area - T. H. Carmell H. L. Poole
      - Engineer (Assignment) - 700 Area - J. C. Haines
        - Craft Foreman - T. M. Stratton, Jr.
        - Engineer (Assignment) - H. T. Hildreth
  - Engineers (Assignment) - L. S. Taylor - J. M. Holeman - B. E. Woodward

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HAWORTH ENGINEERING WORKS

TRANSPORTATION DEPARTMENT

Superintendent - R. T. Cooke

Assistant Superintendent - T. B. Pugh

General Foreman - Transportation & Traffic Offices - P. P. Derr

Senior Supervisor - Traffic - J. A. McVeigh

Chief Supervisor - Railway & Automotive Operations - H. G. Jones, Jr.

Senior Supervisor - W. L. Straughen

Shift Supervisors - H. L. McAbee A. P. Mitchell C. H. Cole

Shift Foreman - J. A. English

E. H. Deal H. E. Groff R. W. Shoemaker

B. A. DeGood M. D. McCrudor M. M. Sloan

C. R. Goff D. A. Redman L. G. Solberg

Yardmaster - F. A. Lynn

Chief Supervisor - Mechanical & Labor - H. W. Rice

Assistant Chief Supervisor - F. J. Taroe

Garage Foreman - L. A. Powell

Shift Foreman -

C. E. LaPorte

H. B. Beers J. C. Ensor N. L. Lewis

F. W. Bell R. L. Drown J. L. Perry

V. L. Bond W. A. Green L. E. Jones

Roundhouse Foreman - L. H. Ivory

Senior Supervisor - Labor - L. S. Johnson

General Foreman - C. W. Funk - G. B. Mullins

Labor Foreman - G. L. Acorn C. H. Cloud

G. T. Adams W. B. Hinson J. L. Millard

C. M. Brodercom T. M. Jones K. H. Parchen

H. M. Emmons W. R. Jones J. S. Phillips

H. L. Gegnobin D. L. Lane H. H. Terpstra

C. E. Gant A. J. McKinnon L. O. Williams

Maintenance Foreman - H. M. Hall (Truck Maintenance)

Labor Foreman - F. C. Ayer H. H. Cook L. B. Russell

Maintenance Foreman - O. L. Lange - (Roads & Streets)

Labor Foreman - F. Doyle

Truck Foreman - O. F. Davis

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May 1, 1947

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT

Superintendent - W. F. Clout

Assistant Superintendent (Plant) - E. V. Albrechtsen

Chief Supervisor - Personnel - L. E. Scott

Assistant Chief Supervisor - Personnel - H. A. Hansen

Division Supervisor - Industrial Relations - W. T. Pope

Industrial Relations Counselors - D. G. Dayton E. E. Linter

Section Supervisor - Industrial Relations - C. F. Stuart (Welfare)

Division Supervisor - Personnel - K. L. Donnell

Section Supervisor - Employment - A. F. Hadepoth

Section Supervisor - General - C. F. Honnecker (Central Files)

Chief Supervisor - Safety & Fire Protection - J. V. Leonard

Division Supervisor - Safety & Fire - E. F. Jones

Engineers - Safety - R. A. Harlow J. F. H. Kelly L. K. Riggs H. V. Wilkins

Section Supervisor - Fire - R. E. Marc

Fire Chief - C. L. Olson (Village)

Assistant Fire Chiefs - F. J. Quane E. D. Sharpsack

Fire Captains - H. B. Anderson F. F. Mutt

Fire Lieutenants - W. C. Bolce W. C. Littrell J. E. Sherwood
D. A. Foster C. A. Nevins H. E. Trosper
R. W. Hatfield M. G. Pearson W. A. Wright

Fire Chief - J. J. Whicker (Plant)

Fire Captains - G. A. Hirst P. S. Smith

Fire Lieutenants - G. H. Lovell P. P. Perkins
L. J. Breaina K. H. Halfway K. I. Peterson
R. O. Fortune L. P. Massel B. G. Pigg
J. O. Hawkins E. R. Oder L. H. Rice

Division Supervisor - General - T. B. Mitchell

Foreman - Laundry - G. H. McCammon G. W. Powell

Foreman - Janitors - W. Maguffee J. J. Quinn
W. G. Freeland J. L. Norwood P. P. Springer

Assistant Superintendent (Village) - C. C. Houston

Division Supervisor - General - E. D. Badgett (Community Facilities)

Section Supervisor - General - R. J. Pederson (Commercial Facilities)

Section Supervisor - General - D. B. Beret

Division Supervisor - General - C. F. Barnes (Community Activities)

Division Supervisor - General - H. L. Price (Housing)

Section Supervisor - General - F. X. Winne (Tenant Service)

Section Supervisor - General - C. W. Hooks (Rental and Assignment)

Foreman - General - D. L. Anderson (Dormitory)

Division Supervisor - General - R. E. White (Contracts & Records)

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May 1, 1946

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT (PROTECTION)

Assistant Superintendent - E. L. Richmond

- Chief Supervisor - (Security & Investigation).
  - Division Supervisor - (Investigation)
    - Section Supervisor - H. F. Johnstone (Investigation)
  - Division Supervisor - T. E. Farley (Security)
    - Section Supervisor - G. D. Barr (Spec.Assgn. - Rep.&Rec.- Technical Department
- Chief Supervisor - C. C. Tallman (Patrol)
  - Division Supervisor - H. W. Stroch (Industrial Areas)
    - Captain - S. F. Campbell, Jr. (200-E Area)
      - Lieutenants - H.S.Morse W.E.Spicer C.E.Rekonen L.G.A.Casey D.J.Hensley
        - Sergeants - G.R.Reese G.M.Everett W.E.Cox T.J.McGuire A.E.Carey
    - Captain - E.T. Fidler (200-W Area)
      - Lieutenants - E. Morris H. C. Pollard C. G. Hicks W. H. Roos
        - Sergeants - J. A. Bowman J. R. Evans
    - Captain - E. W. Sutherland (100-B Area)
      - Sergeants - C.L. Luebber C.E. Turner W.E. Jorgensen V.S. Olson
    - Captain - W. H. Pillsbury (100-D Area)
      - Lieutenants - C. Norbraten C. Uhrenholdt D. P. White H. L. Smith
        - Sergeants - B. W. Allen J. E. Coleman
    - Captain - W. A. Ziegler (100-F Area)
      - Lieutenants - C.C. Haelsig C.E. Jones R.E. Watts H.E. Faulkner
    - Captain - C. A. Whaley (300 Area)
      - Sergeants - J.W. Cheadle G.L. McGilbry W.A. Meyer L.W. Myers
  - Division Supervisor - W. P. Allen (Richland Area)
    - Sergeant - A. E. Barron (Traffic and Accident Investigation)
    - Lieutenant - J. Johnson (Crime Prevention)
      - Sergeants - L. M. Linkous L. W. Lyall
    - Lieutenants - A.A. Layman C.H. Overdahl J.K. Holmes A.L. Meyer
      - Sergeants - A.F. Novotny W.M. Kerr J.C. Cole R.M. Kays F.F.Beardsley
  - Division Supervisor - E. Weston (Administration)
    - Lieutenant - Supply - Emergency Procedure - Master Keys -Automotive Equip.
      - Sergeant - C. F. Klepper (Supply Administration - Master Keys)
      - Sergeant - A. J. Barnett (Emergency Procedure - Supply records)
      - Sergeants - (Emergency Officers) - F. J. Bihner W. J. Rosenberger
        L. K. Woods J. C. Clark
      - Sergeant - H. F. Simpson (Automotive equipment)
    - Captain - A. L. Funk - Personnel & Records)
    - Captain - L. D. Wright - Training)
      - Sergeant - R. G. Burrus

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May 1, 1946

HANFORD ENGINEER WORKS

MEDICAL DEPARTMENT

Superintendent - W. D. Norwood, M.D.

- Senior Medical Specialist - (Village Medical) - T. J. Bulger, M.D.
  - Hospital Services - G. Thom - Senior Supervisor
    - Senior Supervisor - E. Fariss (Dietetics)
    - Pharmacist - M. A. Hilt
    - Senior Supervisor - E. Sikes (Nurses)
      - Senior Supervisor - M. Lee (Industrial)
      - Senior Supervisor - M. Sharpless (Hospital)
        - Senior Supervisor - A. McDonald (Obstetrics)
        - Senior Supervisor - R. Swift (Anesthesia)
        - Shift Supervisors - V. Bridges K. Kenworthy (Surgery)
        - Shift Supervisor - M. Gavin (Isolation)
        - Shift Supervisor - W. Rosander (Medical)
        - Shift Supervisor - D. Carlson (Relief)
      - Shift Supervisor - R. Eisert (Village Medical)
      - Shift Supervisors - M. Albright B. Bieker
      - Shift Supervisor - R. Brookes (Public Health)
      - Shift Supervisor - E. Gregory (Anesthesia)
  - Specialists
    - Senior Physician - L. L. Davis, M.D. (Eye)
    - Medical Specialist - M. R. Petersen, M.D. (Obstetrician)
    - Medical Specialists - V. Shuman, M.D. B. T. Strongman, M.D. (Pediatricians)
    - Medical Specialist - L. F. Hulsman, M.D. (Ear, Nose, & Throat)
  - Medicine
    - Principal Physician - T. J. Albertowicz, M. D.
    - Principal Physician - J. S. Taylor, M.D.
    - Principal Physician - L. B. Harville, M.D.
    - Principal Physician - T. L. McCauvran, M.D.
  - Senior Supervisor - E. C. Berry (Bacteriology)
- Chief Supervisor - E. H. Pitluck, D.D.S. (Dentist)
  - Physician - R. C. Thorell, D.D.S.
  - Senior Physician - O. D. Stevlingston, D.D.S.
  - Physician - J. F. Saylor, D.D.S.
  - Physician - A. Ridge, Jr., D.D.S.
  - Senior Physician - J. R. Thomas, D.D.S.
  - Senior Physician - F. Ewell, D.D.S.
  - Senior Physician - F. A. Lemoine, D.D.S.
- Chief Supervisor - F. A. Fugua, M.D. (Industrial Medicine)
  - Senior Supervisor - B. A. West (Laboratories)
  - Senior Physician - J. C. Miller, M.D. (Pre-Employment)
  - Senior Physician - B. C. Scudder, M.D. (Plant Medical)
  - Physician - J. A. de Freitas, M.D. (Plant Medical)
  - Physician - K. G. Brockman, M.D. (Plant Medical)
  - Senior Physician - J. A. Quigley, M.D. (Public Health)
    - Engineers (Assgn.) - L. C. Koch J. I. Maston

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May 1, 1940

HANFORD ENGINEER WORKS

MEDICAL DEPARTMENT

HEALTH INSTRUMENT SECTION

Assistant Superintendent - H. M. Parker (Health Instrument)

- Chief Supervisor - C. C. Gamertsfelder
  - Senior Supervisor - C. M. Patterson (Survey)
    - Senior Supervisor - L. J. Cherubin (Survey Alternates)
      - Engineers - P. R. Nelson, H. G. Ruppert, R. B. Bixler, F. G. Tabb, P. C. Jerman
    - Senior Supervisor - L. L. German (100 Areas & 300 Area)
      - Senior Supervisors - J. M. Smith, Jr. (100-D) W. A. McAdams (100-F)
        - Engineers - L. F. Albright, R. G. Clough, B. Anderson, Jr., W. Singlevich, W. F. Bulow, J. G. Myers (100-B)
      - Engineer - R. W. Chamberlin (300)
    - Senior Supervisor - F. P. Seymour - (200 Areas)
      - Senior Supervisor - L. L. Nickelson - (200-T and 2723)
        - Engineers - W. C. Armstrong, H. J. Paas, R. A. Hultgren, G. M. Rolph
        - Shift Supervisor - A. I. Moore (2723 Bldg.)
      - Senior Supervisor - C.R.E. Merkle, Jr. (200-E & W)
        - Engineers - J. L. Gabriel, R. E. Olson, L. C. Roos, M. T. Lewis, G. P. Kesel
      - Senior Supervisor - H. A. Moulthrop (231 Bldg.)
        - Engineers - L. V. Barker, C. B. Foster, J. D. Duncan, L.V. Zuerner
    - Senior Supervisor - J. W. Healy (Special Studies)
      - Senior Supervisor - P. L. Eisenacher
        - Engineers - K. E. Herde, L. D. Phanke, F. L. Vencill
        - Engineer - W. H. Delany, Jr. (Calibration)
        - Shift Supervisor - J. R. Hobaugh (706 Bldg.)
        - Engineer - F. J. Zelley (Records)
      - Senior Supervisor - L. D. Turner - Site Survey
        - Engineers - J. W. Anderson, J. M. Campbell
    - Senior Supervisor - J. C. Hart - (Personnel Meters)
      - Shift Supervisors - K. F. Bladridge, E. J. Galbraith, H. C. Money (Pencils), J. C. Ledbetter, N. W. Hope, C.L.Wheador (Badges)

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May 1, 1940

HANFORD ENGINEER WORKS

ACCOUNTING DEPARTMENT

Chief Accountant - S. D. Ewing

- Assistant Chief Accountant - J. I. Moffett
  - Chief Clerk - Accounting - R. L. Meekins
    - Assistant Chief Clerk - W. S. Roe
      - Supervisor - Accounting - R. M. Hopkins
      - Senior Clerk - Accounting - R. C. Forbes
  - Chief Clerk - Operations - R. W. Carriger
    - Assistant Chief Clerk - C. E. Poehlein
      - Supervisor - Stores - C. J. Sheeran
        - Assistant Supervisor - Stores - T. L. Lindgren
      - Supervisor - Purchases - W. A. Jeffrey
        - Assistant Supervisor - W. A. Bearden
      - Supervisor - Accounting - R. S. Quarles
        - Assistant Supervisor - Accounting - I. D. Behymer
      - Supervisor - Accounting
        - Assistant Supervisor - Accounting - B. R. Henniger
          - Senior Clerk - Accounting - T. G. Stanfield
    - Senior Clerk - Accounting - D. A. Hauser

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HANFORD ENGINEER WORKS

SUMMARY

EXEMPT

Manager	1
Assistant Manager	1
Production Superintendent	1
Technical Superintendent	1
Works Engineer	1
Superintendents	9
Assistant Superintendents	11
Chief Supervisors	16
Assistant Chief Supervisors	17
Area Supervisors	21
Senior Supervisors	85
Water Supervisors	2
Shift Supervisors	118
Area Engineers	10
Assistant Area Engineers	18
Shift Engineers	11
Foreman	155
Yardmasters	2
Engineer Assignment	82
Engineer Chemical	12
Supervisors in Training	4
Jr. Technologists	2
Metallurgist	1
Physicist	7
Chemist	12
Division Supervisor	12
Section Supervisor	10
Counselor	2
Fire Captain	4
Fire Lieutenant	20
Fire Chief	2
Assistant Fire Chief	2
Safety Engineer	4
Patrol Captain	8
Patrol Lieutenant	22
Patrol Sergeant	53
Chief Accountant	1
Assistant Chief Accountant	1
Chief Clerk	2
Assistant Chief Clerk	2
Supervisor	4
Assistant Supervisor	4
Senior Clerk	8
Physician	17
Medical Specialist	6
Pharmacist	1
Training Instructor	1
Technical Specialist	8
TOTAL	780

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May 1, 1940

HANFORD ENGINEER WORKS

SUMMARY

NON-EXEMPT

Senior Clerk	40
Clerk	135
Jr. Clerk	152
Secretary	19
Chief Stenographer	3
Stenographer	75
Typist	40
Messenger	8
Chief Telephone Operator	3
Telephone Operator	34
Office Machine Operator	46
Office Helper	85
Nurse	81
Medical Technician	25
Medical Attendant	2
Helper	159
Laborer	159
Cook	1
Inspector	23
Electrician	152
Groundman	11
Instrument Mechanic	97
Draftsman	10
Jr. Engineer	2
Estimator	11
Mechanic	342
Painter	40
Tool and Store Attendant	13
Chief Operator	54
Operator	770
Coal Handler	27
Auto Mechanic	64
Oiler	89
Crane Operator	10
Tractor Operator	14
Equipment Inspector	5
Employment Investigator	2
Truck Driver	52
Patrolman	360
Radio Operator	5
Matron	7
Safety Inspector	1
Fire Protection Inspector	25

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May 1, 1946

HANFORD ENGINEER WORKS

SUMMARY

NON-EXEMPT

(Continued)

Employment Interviewer	2
Locomotive Operator	7
Fingerprinter	1
Seamstress	5
Conductor	6
Switchman	9
Trackman	20
Weighmaster	1
Shuttle Driver	186
Photographer	1
Fireman	72
Laundry Operator	2
Janitor	71
Laundry Attendant	7
Chemist	50
Analyst	8
Laboratorians	97
Laboratory Attendant	1
Technician	1
Process Inspector	0
TOTAL	3760

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HANFORD ENGINEER WORKS
ORGANIZATION ANNOUNCEMENT NO. A-15

SUBJECT: ORGANIZATION CHART

The attached Hanford Engineer Works Organization Chart, effective November 1, 1946, will supersede that which was issued on September 1, 1946. The previous organization charts now in your possession are to be returned promptly to the 700 Area File.

/s/ D. H. LAUDER
D. H. LAUDER
WORKS MANAGER

DHL/vlc
Attachment

Distribution: List 1

11/7/46

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NOVEMBER 1, 1946

HANFORD ENGINEER WORKS

STAFF ORGANIZATION CHART

Manager - D. H. Lauder

- Assistant Manager - G. G. Lail
  - Production Superintendent - C. N. Gross
    - P Department Superintendent - J. E. Maider
    - S Department Superintendent - W. K. MacCready
  - Technical Department Superintendent - A. B. Greninger
  - Service Department Superintendent - E. L. Richmond
  - Works Engineer - W. P. Overbeck
    - Power Department Superintendent - H. H. Miller
    - Maintenance Department Superintendent - W. W. Pleasants
    - Electrical Department Superintendent - H. A. Carlberg
    - Instrument Department Superintendent -
    - Transportation Department Superintendent - R. T. Cooke
  - Medical Department Superintendent - W. D. Norwood, M.D.
  - Works Accountant - F. E. Baker
  - Design and Construction Department Superintendent - F. W. Wilson

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November 1, 1946

HANFORD ENGINEER WORKS

P DEPARTMENT

Superintendent - J. E. Maider

- Assistant Superintendent - E. P. Lee
  - Chief Supervisor - B & D Areas - W. P. McCue
    - Area Supervisor - B Area - W. P. Rankin
      - Shift Supervisors - H. E. Berg J. H. M. Miller G. B. Jex K. T. Perkins E. A. Wegener
    - Assistant Chief Supervisors - D Area - M. Davis P. E. Lowe
      - Area Supervisors - J. T. Baker R. D. Miller D. S. Lewis W. P. Nicklason
        - Senior Supervisor - J. Haaga
        - Shift Supervisors - J. G. Bradley D. C. Montgomery B. M. Kasper E. W. O'Rorke
  - Chief Supervisor - F Area - J. H. Warren
    - Assistant Chief Supervisors - H. L. Henry W. W. Windsheimer
      - Area Supervisors - G. B. Carlton G. A. Peterson A. A. Janos H. T. Wells
        - Shift Supervisors - J. E. Greever L. H. Wallace H. A. Laybourne E. S. Whittaker
  - Chief Supervisor - 300 Area - R. O. Mehann
    - Area Supervisor - W. A. Blanton
      - Senior Supervisor - F. E. Jochem
        - Shift Supervisor - F. A. Snyder
        - Foremen - J. H. Kelly W. R. Kirk
      - Senior Supervisor - S. L. Nelson
        - Shift Supervisor - J. E. Shipp
        - Engineer (Assignment) - D. L. DeNeal
        - Foremen - L. Mikkelson W. M. Timmerman
  - Engineer (Assignment) - W. G. Barnett

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November 1, 1940

HANFORD ENGINEER WORKS

S DEPARTMENT

Superintendent - W. K. MacCready

Assistant Superintendent - R. S. Bell

Chief Supervisor - T Plant and 231 - K. C. Vint

Assistant Chief Supervisor - T Plant - V. R. Chapman

Area Supervisors - F. Moss O. V. Smiset

Senior Supervisors - E. F. Curren P. G. Rhoades
L. F. Hardy L. H. Rynd
W. H. Mobley E. F. Smith
W. B. Reed J. P. Turping

Shift Supervisors - G. K. Halm R. E. Teesek
J. L. Rogers

Senior Supervisor - Meteorological - D. E. Jenne

Engineer (Assignment) - A. Hester

Assistant Chief Supervisor - 231 Building - E. A. Foskett

Area Supervisor - L. I. Brecke

Senior Supervisors - J. B. Chaney J. F. Donnelly
J. T. Christy S. G. Smolen

Shift Supervisors - J. G. Attanas T. C. Kilgress
F. C. Black B. D. Wilson
M. E. Jackson

Chief Supervisor - B Plant - S. D. Smiley

Assistant Chief Supervisor - B Plant - T. Prudich

Area Supervisors - C. T. Groswith F. A. R. Stainken

Senior Supervisors - S. I. Allen R. K. Messick
J. R. Barber A. S. Emery
O. P. Beaulieu M. A. Phillips
H. W. Huntley W. M. Wiesman
R. L. Lance W. A. Wright

Shift Supervisors - G. K. Carpenter J. R. Fine
J. R. Cartmell E. L. Kelley
B. E. Clark F. R. Lewis

Senior Supervisor (Records) - V. D. Donihee

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HANFORD ENGINEER WORKS
TECHNICAL DEPARTMENT

November 1, 1946

Superintendent - A. B. Greninger

- Special Assistant - T. W. Hauff
  - Senior Supervisor (Statistics) - B. F. Butler

- Chief Supervisor - Laboratories - R. E. Curtis
  - Assistant Chief Supervisor - R. B. Fenninger
    - Area Supervisor (Control 200 Areas) - L. M. Knights
      - Senior Supervisor - (222-B) - F. F. X. Dunigan
        - Shift Supervisors - C. F. Amacker, J. W. Jordan, L. A. Berry, J. F. Walker
      - Senior Supervisor - (231) - J. W. Hall
        - Shift Supervisors - R. B. Abrams, M. W. Murray, H. F. Matthiesen, R. E. Roberts
        - Chemist - P. B. Fisk
    - Area Supervisor - Essential Materials, 100-300 Area Control - R.J. Hale (Acting)*
      - Senior Supervisor - (100-B, D and F) - J. S. Stoakes
        - Shift Supervisors - G. W. Baldwin, D. H. Elderkin, E. P. Galbraith, F. M. Koop, H. A. Paulsen
      - Senior Supervisor - (Essential Materials, 300 Area) - E. W. Rebol (Acting)
        - Shift Supervisor - C. E. Shafer
          - Chemist - F. R. Anderson
      - Chemists - W. W. Marshall - W. W. Mills - L. F. Kendall
    - Chemists - H. H. Burton, R. D. Fletcher, W. E. Thompson, J. K. Figenshau, D. F. Shepard (Shift Supr.), N. J. Rasmussen
    - Junior Technologist (Manuals) - D. W. McElveny

- Chief Supervisor - 100-300 Areas - C. [redacted] J. Wende
  - 100 Area - Engineering - W. K. Woods (6)
    - W. K. Alexander (2), W. R. Lewis (1), C. P. Gabell (2), S. S. Jones (2), R. A. Rohrbacher (4)
  - 300 Area - Area Supervisor - E. A. Smith
    - W. T. Mattner (2), T. S. Jones (2), L. A. Hartoorn (3), R. D. McGreal (2), R. M. Treco (4), A. T. Strand (1)
  - 100 Area - Physics - Area Supervisor - P. F. Gast
    - U. M. Staebler (5), H. A. Fowler (5), E. B. Montgomery (5), G. H. Syrovy (1), G. V. Packer (1), J. M. West (5), H. A. Baskin (8), F. E. Kruesi (4), C. V. Larrick (1), K. L. Boring (1)

- Chief Supervisor - 200 Areas - J. B. Work
  - Plant Assistance - 221 Bldg. - B. E. Greffrath (2), E. J. Reber (1), W. J. Walsh (4)
  - Plant Assistance - 224 Bldg. - W. M. Harty (1), M. J. Szulinski (2)
  - Plant Assistance - 231 Bldg. - D. W. Haught (1), E. V. Flock (2)

- Chief Supervisor - Chemical Development - R. H. Beaton
  - H. M. Jones (1), J. M. Frame (2), W. A. Ray (1), R. E. Olson (1), H. M. Hubble (2), M. K. Harmon (1), R. J. Moore (4), R. E. Tomlinson (2), H. E. Hanthorn (1), N. G. Wittenbrock (2)

1 - Engineer (Assignment)
2 - Engineer (Chemical)
3 - Metallurgist
4 - Jr. Technologist
5 - Physicist
6 - Technical Specialist
7 - Supervisor in Training
8 - Chemist

*W. A. Briggs, Jr., Area Supervisor 100-300, on loan to Service Department

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MANFORD ENGINEER WORKS

POWER DEPARTMENT

adent - H. H. Miller
at Superintendent - H. F. Measley
Supervisor - 100-B, D, F Areas - A. Frew
gineer (Results) - 100-B, D, F Areas - J. P. Langan
ater Supervisor - 100-B, D, F Areas - W. R. Conley, Jr.
lor Supervisor - 100-B Area - H. M. Huff
hift Supervisors - 100-B Area - A. C. Whiteside P. J. Crowder R. J. King
S. G. Moores J. W. Frymier
enior Supervisor - Steam - F. L. Macke
istant Chief Supervisor - 100-D Area - J. C. McLaughlin
rea Supervisor - N. H. Skarshaug
Senior Supervisors (Water Plant) - C. E. Harkins I. L. Ellis E. D. Ferguson
L. S. Cave K. W. McKay H. P. Johnson
Shift Supervisors - Bldgs. 185, 186, - R. B. Crum E. R. Hill
189, 190, 108, 105 Valve Pit - W. L. Bowen W. B. Zilar
Foremen - Bldgs. 181, 182, 183 - F. J. Smith P. L. Van Wyck T. A. Askew
S. Rivenbark P. E. Whiteside
Senior Supervisor - Steam - E. R. Keplinger
Shift Supervisors - Bldg. 184 - C. J. Williams G. R. Hale
R. Jenkins C. R. Smith

istant Chief Supervisor - 100-F Area - F. F. Britson
rea Supervisor - K. F. Priest
Senior Supervisors - Shift (Water Plant) - D. Mathis J.E. Dryer J.D. Turner
E. Wilson H.R. Hicks J.H. Tarpenning
Shift Supervisors - Bldgs. 185, 189, - E. L. Van Kirk C. P. Jones
190, 108, 105 Valve Pit - H. A. Jones H. C. Crose
Foremen - Bldgs. 181, 182, 183 - R. M. Hayward E. V. Starkebaum J. E. Benham
K. J. MacLeod A. E. Brown
Senior Supervisor - Steam - R. McDonald
Shift Supervisors - Bldg. 184 - H. C. Nelsen E. T. Tausch
G. Watkins O. R. Eastwood

Supervisor - 200, 300, 700, 1100 Areas - J. A. Todd
gineer (Results) - 200, 300, 700, 1100 Areas - H. A. Kramer
a Supervisor - 200-E, W Areas - H. G. Harder
enior Supervisor - 200-W Area - G. R. McMillan
Shift Supervisors - L. P. Shaffner J. P. O'Connell N. J. Schmitt
E. F. Smith J. C. Wright
enior Supervisor - 200-E Area - P. H. Klute
Shift Supervisors - J. H. Palmer K. G. Riley L. P. Bums
A. L. Henning F. Cox, Jr.
a Supervisor - 300, 700, 1100 Areas - K. R. Leifermann
enior Supervisor - 300, 700, 1100 Areas - H. N. Petty
Shift Supervisors - C. G. Rose R. Clement V. I. Woodruff
L. C. Goodwin K. F. Erickson

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November 1, 1946

HANFORD ENGINEER WORKS

MAINTENANCE DEPARTMENT

Superintendent - W. W. Pleasants

- Assistant Superintendent - J. F. Heberer
  - Area Engineer - (100 Areas) - R. R. Meyers
    - Assistant Area Engineer - (100-B & 100-D) - J. W. Nageley, Jr.
      - General Foreman - (100-B) - R. J. Browning
      - Foreman - (100-D) - C. A. Brenner
      - Foremen - (100-B, 100-D, 100-F) Shifts - C. E. Geer
        - J. C. Groom E. B. Shafer R. W. Willmott
    - Assistant Area Engineer - (100-F) - K. K. Campbell
      - Foremen - J. A. Jensen B. E. Page
      - General Foreman - E. E. Johnson
        - Foremen - D. W. Clark R. M. Scott R. Musselman
          - K. E. Harding
  - Shift Engineers - (All Areas) - E. H. Holte D. C. Keak
    - F. B. Kramer M. E. Yates
  - Area Engineer - (200 Areas) - R. T. Jessen
    - Assistant Area Engineer - W. E. Davis
      - General Foreman - (200-W) J. B. Hughes
        - Foremen - C. L. Poe W. E. Pinfrock B. M. Wright
          - O. B. Palmer J. M. Stewart
      - General Foreman - (200-E) - J. F. Lee
        - Foreman - J. M. Blackburn P. E. L. Hussbaum W. L. Soffe
      - Foremen - (200-E, 200-W) Shifts - G. L. Shoberg
        - C. I. McCrarey J. V. Clatworthy H. C. Savage
  - Area Engineer - (300-700-1100) - J. M. Heffner
    - Assistant Area Engineer - W. Seeburger
      - General Foreman - (300) - E. W. Baker
        - Foreman - J. W. Calderwood K. L. Sappenfield
      - General Foremen - (700-1100) - M. F. Walker F. Sevedge
        - J. S. Crowder
        - Foremen - B. C. Bain J. E. Hocutt J. L. Gastkill
          - M. W. Persons E. A. Lynn R. L. Vaught
          - Z. M. Mayberry E. L. Woodburn E. L. Merryman
          - L. Bellande J. R. Goggin C. H. Bell

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- Area Engineer - Engineering Section - S. F. Schurr
  - Assistant Area Engineer - J. P. Cooke
    - Eng. Assign. - Special - V. W. Wood
    - Eng. Assign. - Group Leader - Studies - F. A. Bowman
      - Eng. Assign. - E. S. Bell
        - Eng. Assign. - D. A. Brown
      - Eng. Assign. - C. T. Kessel, C. H. Lang, J. V. Lawler
      - Eng. Assign. - G. R. Moore
        - Eng. Assign. - H. P. Shaw
      - Eng. Assign. J. H. Smithson
        - Eng. Assign. - G. P. Kesel
    - Eng. Assign. - Group Leader - Projects - H. F. Peterson
      - Eng. Assign. - 100-300 - C. W. May
        - Eng. Assign. - M. G. Patrick
      - Eng. Assign. - 200 - R. Overson
        - Eng. Assign. - C. D. Chalmers, E. A. Lee
      - Eng. Assign. - 700-1100 - C. Bucholz
        - Eng. Assign. - M. R. Dempster, V. R. Hill
        - Eng. Assign. - R. L. Brown
    - Eng. Assign. - Group Leader - Design -
      - Eng. Assign. - R. B. Sturges, J. T. Lloyd
    - Eng. Assign. - Group Leader - Development - C. H. Holt
      - Eng. Assign. - D. I. Millet, J. G. Brown
    - Eng. Assign. - Material Control - C. F. Meeske

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November 1, 1946

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INSTRUMENT DEPARTMENT

Superintendent - Vacancy

Assistant Superintendent - Vacancy

Area Engineer - 100 Areas - E. Hilgeman
- Craft Foreman - 100-B Area - W. A. Richards
- Assistant Area Engineer - 100-D Area - T. M. Clement
  - Craft Foremen - C. D. Phelps, M. W. Bjur
- Assistant Area Engineer - 100-F Area - E. S. Day, Jr.
  - Craft Foremen - R. C. Theil, C. C. Clemetson

Area Engineer - 200 Areas - W. W. Porter, Jr.
- Assistant Area Engineer - F. K. Peck
  - Craft Foremen - 200-E Area - P. E. Cunningham, C. J. Weichel
  - Craft Foremen - 200-W Area - R. C. Mann, R. W. Phaling

Area Engineer - Shops - W. M. Mathis
- Assistant Area Engineer - 300 Area - W. T. E. Elmendorf
  - Craft Foremen - R. W. Lutz, J. D. McCullough, H. L. Poole
  - Engineer (Assignment) - R. K. Bollinger
- Assistant Area Engineer - 700-1100 Areas - J. G. Haines
  - Craft Foreman - F. M. Stratton, Jr.
  - Engineer (Assignment) - N. T. Mildreth

Supervisor in Training - Instrument Development - M. G. Barnard
- Engineers (Assignment) - B. E. Woodward, J. M. Holeman
- Craft Foreman - T. R. Cartmell

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November 1, 1946

HANFORD ENGINEER WORKS

ELECTRICAL DEPARTMENT

Superintendent - E. A. Carlberg

- Assistant Superintendent -
  - Area Engineer - 100 Areas - E. E. Weyerts
    - Assistant Area Engineer - 100-B & 100-F - R. B. Britton
      - Foremen - G. L. Givan - 100-B
      - R. R. Palmer - 100-F
    - Assistant Area Engineer - 100-D - P. R. Engels
      - Foreman - H. E. Bennett
    - Engineer (Assign.) - E. J. O'Black
  - Area Engineer - 200, 300, 700, & 1100 Areas - W. J. Dewis
    - Assistant Area Engineer - 200-E - E. M. White
      - Foreman - E. F. Leinberger
    - Assistant Area Engineer - 200-W - A. L. Vosmer
      - Foremen - R. F. Smith - W. J. Stubblefield
    - Assistant Area Engineer - 300, 700 & 1100 - C. R. Bergdahl
      - Foremen - T. D. Gibbs - 300
      - D. C. Wheeler - 700 & 1100
    - Shift Engineer - Plant Telephone - B. J. Willingham
      - Foreman - L. S. Howard
    - Engineers (Assign.) - 200 Areas - A. A. Maxwell
      - 700 & 1100 Areas - General - H. R. Hughes
  - Area Engineer - Distribution - J. C. Badenoch
    - Assistant Area Engineer - C. C. Hinson
      - Shift Engineer - Line Maintenance - W. E. Houston
        - Foremen - R. J. Agen - W. H. Hopkins - P. G. Sease
      - Shift Engineer - Substation Maintenance - H. E. Evans
        - Foremen - H. M. Osborn - E. G. Dosskey
    - Assistant Area Engineer - H. A. Remaly
      - Engineer (Assign.) - Relaying and Protection - R. F. Haynes
      - Engineer (Assign.) - Training - C. D. Stahl
      - Foreman - Substation Operators and Dispatchers - V. R. Griffith
      - Foreman - Communications - G. R. McKinney

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November 1, 1946

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT - VILLAGE

Service Superintendent - E. L. Richmond

- Asst. Service Superintendent - G. C. Houston
  - Division Supervisor - Special Assignments - E. S. Baker
  - Division Supervisor - Performance of Community Facilities - H. J. Pederson
    - Section Supervisor - Commercials -
  - Division Supervisor - Contacts - Community Activities - C. F. Barnes
    - Section Supervisor - D. H. Berst
  - Division Supervisor - Contracts and Negotiations - R. M. White
    - Section Supervisor - Facilities - Property - W. C. Poe
  - Division Supervisor - Housing - H. E. Price
    - Section Supervisor - Tenant Service - M. T. Binns
    - Section Supervisor - Rental and Assignment - C. W. Weeks
    - Sanitary Foreman - Dormitories - D. L. Anderson

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November 1, 1946

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT - PLANT

Assistant Service Superintendent (Plant) - T. B. Pugh

- Chief Supervisor - Safety & Fire Protection - S. B. Badgett
  - Division Supervisor - Safety & Fire - H. E. Jones
    - Engineers - Safety - J. P. H. Kelly, W. H. Roos, L. R. Riggs, F. J. Williams
  - Section Supervisor - Fire - R. H. Hare
    - Fire Chief - C. L. Olson (Village)
      - Assistant Fire Chiefs - P. J. Quane, W. D. Sharpnack
        - Fire Captains - H. W. Anderson, F. F. Rutt, P. S. Smith
          - Fire Lieutenants - W. G. Boice, E. A. Mitchell, C. A. Caldwell, C. A. Nevins, R. G. Hatfield, M. G. Pearson, George Knepp, J. E. Sherwood, W. C. Littrell, H. E. Trosper
    - Fire Chief - J. J. Whicher (Plant)
      - Fire Captain - G. A. Hirst
        - Fire Lieutenants - L. J. Bresina, P. P. Perkins, R. O. Fortune, B. G. Pigg, J. O. Hawkins, K. I. Peterson, G. O. Ager, K. McElveny, E. R. Oder, L. H. Rice
  - Division Supervisor - General - T. B. Mitchell
    - Foreman (728 Laundry) - G. W. Powell
    - Foreman (2723-W Laundry) - G. H. McCammon
    - Foremen (Janitor) - W. G. Freeland, J. J. Quinn, W. Maguffee, P. P. Springer, J. L. Norwood
  - Area Supervisor - W. A. Briggs* (Classified Files)
    - Section Supervisor - E. A. Webb (700 Area)
    - Section Supervisor - M. Freidank (300 Area)
  - Section Supervisor - General (Reports and Records) - C. P. Bonnecker

* On loan from Technical Department

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November 1, 1946

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT (PROTECTION)

Assistant Superintendent - C. C. Tallman

- Chief Supervisor - (Security) -
  - Division Supervisor - T. B. Farley
    - Section Supervisor - R. E. Jaynes
- Chief Supervisor - (Patrol) - H. W. Strook
  - Division Supervisor - (Industrial Areas) - W. H. Pillsbury
    - Captain - (200 East Area) - S. F. Campbell, Jr.
      - Lieutenants - H. S. Morse, C. E. Rekonen, D. J. Hensley, J. D. Mayfield
        - Sergeants - C. R. Reese, C. M. Everett, W. M. Cox, H. V. Meigs
    - Captain - (200 West Area) - E. T. Fidler
      - Lieutenants - H. Morris, M. C. Pollard, C. G. Hicks, L. G. A. Casey
        - Sergeants - J. A. Bowman, J. R. Evans
    - Captain - (100-B Area) - H. W. Winslow
      - Sergeants - C. L. Luebber, C. E. Turner, W. E. Jorgenson, W. L. Gross
    - Captain - (100-D Area) - E. W. Sutherland
      - Lieutenants - C. Norbraten, C. Uhrenholdt, D. P. White, H. L. Smith
        - Sergeants - J. E. Coleman, R. J. Book
    - Captain - (100-F Area) - W. A. Ziegler
      - Lieutenants - C. C. Haelsig, C. E. Jones, R. E. Watts, H. E. Faulkner
        - Sergeant - B. W. Allen
    - Captain - (300 Area) - C. A. Whaley
      - Sergeants - W. J. Cheadle, G. L. McGilbry, W. A. Meyer, L. W. Myers
  - Division Supervisor - (Richland Area) - W. P. Allen
    - Sergeants - (Traffic and Accident Investigation) - A. E. Barron
    - Lieutenant - (Crime Prevention) - J. Johnson
      - Sergeants - L. M. Linkous, L. M. Lyall, F. J. Schultz
    - Lieutenants - A. A. Layman, C. H. Overdahl, J. K. Holmes, A. L. Meyer
      - Sergeants - A. F. Novotny, W. M. Kerr, R. H. Kays, P. F. Beardsley, T. J. McGuire
  - Division Supervisor - (Administration) - E. Weston
    - Lieutenant - (Supply, Emergency Procedure, Master Keys, Automotive Equip.)
      - Sergeant - (Supply Administration, Master Keys) - C. F. Klepper
      - Sergeant - (Emergency Procedure, Supply Records) - A. J. Barnett
      - Sergeants - (Emergency Officers) - F. J. Bihner, V. S. Olson, L. K. Woods, J. C. Clark
      - Sergeant - (Automotive Equipment) - H. F. Simpson
    - Captain - (Personnel and Records) - A. L. Funk
    - Captain - (Training) - L. D. Wright
      - Sergeants - R. G. Burrus, L. C. McGuinn

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November 1, 1946

HANFORD ENGINEER WORKS

SERVICE DEPARTMENT - PERSONNEL

Asst. Service Superintendent - H. E. Callahan

- Chief Supervisor - Personnel - H. E. Scott
  - Division Supervisor - Personnel - G. D. Barr
    - Section Supvr. - Investigation - H. F. Johnstone
    - Section Supvr. - Employment (Procurement) - R. E. Donnell
    - Section Supvr. - Employment (Procedure) - G. D. Dayton
    - Section Supvr. - Employment (Files) - A. P. Hudspeth
  - Division Supervisor - Industrial Relations - W. T. Pope
    - Section Supervisor - Selective Service -
    - Section Supervisor - Industrial Relations - S. E. Linter
      - Industrial Relations Counselor (700 Area) - J. A. Wood
      - Industrial Relations Counselor (200 Areas) - T. Purton
      - Industrial Relations Counselor (100 Areas) - W. Smythe
    - Assistant Division Supervisor - Compensation & Insurance - B. K. Phillips
  - Section Supervisor - (Women Activities) - D. Kinkaid
- Chief Supervisor - Education & Training - F. E. Johnson
  - Asst. Chief Supervisor -

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HANFORD ENGINEER WORKS
TRANSPORTATION DEPARTMENT - ORGANIZATION
NOVEMBER 1, 1946

Superintendent - R. T. Cooke

- Asst. Superintendent - T. G. La Follette
  - General Foreman - P. P. Barr (Acting Office Engineer)
    - Senior Supervisor - Traffic - J. A. Mc Swigan
  - Chief Supervisor - Railway and Automotive Operations - E. G. Jones, Jr.
    - Shift Supervisor - C. R. Cole
      - R. L. Mc Gahee — A. P. Mitchell
      - Shift Foremen - J. E. English — C. R. Goff — R. W. Sheckler
      - K. H. Dean — H. E. Groff — M. M. Skeen
      - B. A. De Good — D. A. Redman — L. G. Solberg
    - Yardmaster - F. A. Lynn
  - Chief Supervisor - Mechanical and Labor - M. F. Rice
    - Asst. Chief Supervisor - W. L. Straughen
      - Senior Supervisor - Mechanical - L. A. Powell
        - Garage Foreman - J. C. Ensor
          - Shift Foremen - H. B. Boers — J. L. Perry — C. S. La Porte
          - F. W. Bell — W. E. Green — W. L. Lewis
          - V. L. Bond — L. E. Jones — L. R. Richards
        - Roundhouse Foreman - L. W. Evert
      - Senior Supervisor - Labor - L. S. Johnson
        - General Foreman - K. J. Parchen
          - Truck Foreman - O. F. Davis
          - Labor Foremen - G. E. Broderson — A. J. Mc Kinnon
          - M. L. Cagnebin — J. E. Millard
          - W. B. Hinson — J. S. Phillips
          - T. M. Jones — H. M. Terpstra
          - W. R. Jones
        - Maintenance Foreman - Areas and Heavy Equipment - C. W. Funk
          - Labor Foremen - G. E. Acorn — H. M. Emmons — E. E. Gillum
          - G. T. Adams — C. E. Gant — C. J. Glede
          - L. O. Williams
        - General Foreman - Streets - Roads - Tracks - E. N. Hull
          - Labor Foremen - Tracks - H. M. Cook — M. D. Mc Gruder
          - L. B. Russell
        - Maintenance Foreman - Streets and Roads - C. E. Lange
          - Labor Foreman - F. Doyle

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HANFORD ENGINEER WORKS

November 1, 1946

MEDICAL DEPARTMENT

ORGANIZATION CHART

Superintendent - W. D. Norwood, M. D.

- Asst. Medical Supt. - - (Village Medical)
  - Chief Supervisor - G. Thom (Hospital Services)
    - Senior Supervisor - E. Fariss (Dietetics)
    - Pharmacist - M. A. Hilt
    - Senior Supervisor - E. Sikes (Nurses)
      - Senior Supervisor - E. Quigley (Industrial)
      - Senior Supervisor - M. Sharpless (Hospital)
        - Senior Supervisor - A. McDonald (Obstetrics)
        - Senior Supervisor - R. Swift (Anesthesia)
        - Shift Supervisors - V. Bridges K. Hayes (Surgery)
        - Shift Supervisor - W. Rosander (Medical)
        - Shift Supervisor - D. Carlson (Relief)
        - Shift Supervisor - E. McClaran (Anesthesia)
      - Shift Supervisor - R. Eisert (Village Medical)
      - Shift Supervisors - M. Albright B. Bieker
      - Shift Supervisor - A. O'Leary (Public Health)
  - Specialists
    - Senior Medical Specialist - R. R. De Nicola, M. D. (Surgeon)
    - Medical Specialist - B. Lih, M. D. (Surgeon)
    - Medical Specialist - M. R. Petersen, M. D. (Obstetrician)
    - Senior Medical Specialist - E. M. Broen, M. D. (Obstetrician)
    - Medical Specialist - V. Shuman, M. D. (Pediatrician)
    - Medical Specialist - B. T. Strongman, M. D. (Pediatrician)
    - Medical Specialist - L. F. Hulsman, M. D. (Ear, Nose & Throat)
    - Senior Physician - L. L. Davis, M. D. (Eye)
  - Medicine
    - Principal Physician - T. J. Albertowicz, M. D.
    - Principal Physician - J. S. Taylor, M. D.
    - Principal Physician - L. B. Harville, M. D.
  - Senior Supervisor - E. C. Berry (Bacteriologist)
- Chief Supervisor - H. M. Pitluck, D. D. S. (Dentist)
  - Physician - J. F. Saylor, D. D. S.
  - Physician -
  - Physician - G. M. Hassur, D. D. S.
  - Senior Physician -
- Chief Supervisor - P. A. Fuqua, M. D. (Industrial Medicine)
  - Senior Supervisor - J. Turner (Laboratories)
    - Shift Supervisor - B. C. Ritter (Laboratories)
  - Senior Physician - J. C. Miller, M. D. (Pre-employment)
  - Senior Physician - E. C. Scudder, M. D. (Plant Medical)
  - Senior Physician - J. Thaler, M. D. (Plant Medical)
  - Senior Physician - K. G. Brockman, M. D. (Plant Medical)
  - Medical Specialist - R. R. Sachs, M. D. (Public Health)
  - Engineers (Assignment) - L. G. Koch J. I. Maston (Sanitarians)

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HANFORD ENGINEER WORKS

MEDICAL DEPARTMENT - (HEALTH INSTRUMENT SECTION)

Ass't. Superintendent - H. M. Parker - (Health Instrument)

- Chief Supervisor - (Operational) - C. M. Patterson
  - Ass't. Chief Supervisor - (Survey) - L. L. German
    - Senior Supervisor - (Survey) (Alternates) - L. J. Cherubin
      - Engineers - F. C. Jerman, J. D. Duncan, L. C. Roos, J. G. Myers
    - Area Supervisor - (100 Areas & 300 Area) - M. L. Mickelson
      - Senior Supervisors - J. M. Smith, Jr. (100-D) - W. A. McAdams (100-F)
        - Engineers - B. Anderson, Jr., R. G. Clough, F. Griffiths, W. C. Reinig, M. T. Lewis, L. P. Rolph, G. W. Pomeroy
      - Senior Supervisor - (300) - R. B. Sixler
        - Engineer ---------
        - Engineer (Section Records) - F. J. Zelley
    - Area Supervisor - (200 Areas) - F. P. Seymour
      - Senior Supervisor - (200-T) - F. R. Nelson
        - Engineers - L. V. Barker, L. V. Zuerner, J. D. Ryan, R. W. Harvey, C. B. Foster, S. R. Smith
      - Senior Supervisor - (200 B & N) - C. R. E. Merkle, Jr.
        - Engineers - G. M. Rolph, R. A. Hultgren, W. C. Armstrong, A. R. Keene, R. T. Woolsey
      - Senior Supervisor - (231 Bldg. & 2723 Bldg.) - H. A. Moulthrop
        - Engineers --------- ---------, --------- ---------
        - Shift Supervisor - (2723) - A. I. Moore
    - Area Supervisor - (Personnel Meters), Acting - F. G. Tabb, Senior Supvr.
      - Shift Supervisors - (Pencils) - J. C. Ledbetter - M. W. Hope
      - Engineer - J. L. Gabriel
      - Senior Supervisor - (Badges) H. C. Money
        - Shift Supervisors - K. F. Baldridge - C. L. Wheadon
- Chief Supervisor - (Development) - C. C. Gamertsfelder
  - Ass't. Chief Supervisor - (Methods) - J. W. Healy
    - Senior Supervisor - P. L. Eisenacher
      - Engineers - K. E. Herde, W. Singlevich, ---------, ---------, ---------, ---------
      - Shift Supervisor - Bio-Assay Lab. - J. R. Hobaugh
    - Senior Supervisor - (Site Survey) - L. D. Turner
      - Engineers - H. J. Paas
    - Area Supervisor - (Instruments) - ---------
      - Engineers - F. L. Vencill, H. G. Ruppert, ---------, ---------, ---------, ---------
      - Engineer - (Calibrations) - R. J. Gandy
    - Ass't. Chief Supervisor - (Radiobiology) - ---------
      - Senior Supervisor - (Fish Laboratory) - R. F. Foster

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ACCOUNTING DEPARTMENT

- Works Accountant - F. E. Baker
  - Assistant Works Accountant - K. L. Robertson
    - Chief Clerk - Accounting - W. S. Koe, Jr.
      - Assistant Chief Clerk - Accounting - R. H. Hopkins
        - Supervisor of Accounting - (Accounts Payable) - J. A. Larkin
        - Supervisor of Accounting - (Accounts Receivable) - G. A. Gilson
        - Supervisor of Accounting - (General Accounting) - K. G. Grimm
        - Supervisor of Accounting - (Property) - R. L. Warburton
        - Supervisor of Accounting - (Audits) - L. F. Murray
      - Assistant Supervisor of Accounting (Special Assignment) - J. E. Mattingly
    - Supervisor of Accounting - (Time Office) - I. D. Behymer
      - Supervisor of Accounting - (Time Office) - P. H. Bird
        - Supervisor of Accounting - (Payroll Accounting) - J. R. Hills
        - Supervisor of Accounting - (Payroll Records) - W. Sale
        - Supervisor of Accounting - (Addressograph) - D. J. Brimhall
        - Supervisor of Accounting - (Paymaster) - T. E. Sparks
    - Supervisor of Accounting - (Salary & Banking) - R. S. Quarles
      - Assistant Supervisor of Accounting - (Salary & Banking) - B. O. Wickman
  - Assistant Works Accountant - R. W. Carriger
    - Chief Clerk - Operations - C. E. Poehlein
      - Supervisor of Stores - C. J. Sheeran
        - Assistant Supervisor of Stores - T. L. Lindgren
          - Supervisor of Accounting - (Receiving) - H. L. Morgan
          - Supervisor of Accounting - (Stores Accounting) - C. V. Webster
          - Supervisor of Accounting - (Disbursing) - C. G. Nielson
          - Supervisor of Accounting (Inventory Control) - F. M. Engle
          - Supervisor of Accounting - (Spare Parts) - C. W. Clements
          - Supervisor of Accounting - (Shipping) - K. Hyals
          - Supervisor of Accounting - (Salvage) - H. O. Monson
      - Supervisor of Acoounting - B. R. Hennigar
        - Supervisor of Accounting - T. G. Stanfield
          - Supervisor of Accounting - (100 Areas) - R. E. Anderson
          - Supervisor of Accounting - (200 Areas) - K. B. Keene
          - Supervisor of Accounting - (300 Areas) - J. Christenson
          - Supervisor of Accounting - (Transportation) - H. F. Scott
          - Supervisor of Accounting - (Medical) - A. J. McGinnes, Jr.
          - Supervisor of Accounting - (Printing) - W. A. Halteman
      - Assistant Supervisor of Accounting - (Cost) - A. C. Beltzner
    - Chief Clerk - Operations - W. A. Jeffrey
      - Assistant Supervisor of Purchases - W. A. Bearden
        - Supervisor of Accounting - (Purchasing Clerical) - C. C. Hardigg
        - Buyer - C. C. Hill
        - Buyer - J. W. O'Rourke
        - Buyer - K. V. Lawson, Jr.
        - Senior Clerk - C. L. Anderson
        - Senior Clerk - G. B. Krausher
    - Senior Clerk (Office Methods) - [redacted]

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and File	Appx. Exp. Time	Date Shipped	Remarks
1	Np^{237}	18 Sept. 1945	30 Oct. 1945	20 Jan. 1946	3678-B	58 Days	29 Jan. 1946	1 mg. sample; completed.
2	Thorium	9 Oct. 1945	30 Oct. 1945	15 Nov. 1945	2786-B	15 Days	15 Nov. 1945	1 slug; completed.
3	Thorium	17 Jan. 1946	26 Mar. 1946	11 June 1946	1474-D	67 Days	6 Sept. 1946	33 slugs; completed.
3-1	Thorium	17 June 1946	24 July 1946	2 Oct. 1946	2082-F	69 Days	17 Dec. 1946	43 slugs; completed.
3-2	Thorium	16 Dec. 1946	----	----	----	60-90 Days	----	21 slugs; 60 days cooling
4	"C" Slugs	----	22 Feb. 1945	11 Dec. 1945	2362-B	580 MWD/ CT	22 Mar. 1946	6 slugs; completed.
5	Np^{237}	----	----	----	----	----	15 Mar. 1946	Completed; concentrate shipped from 200 Area.
5a	Np^{237}	----	----	----	----	----	8 July 1946	Completed; concentrate shipped from 200 Area.
5c	Np^{237}	----	----	----	----	----	18 July 1946	Completed; concentrate shipped from 200 Area.
6	U^{233}	11 Feb. 1946	2 April 1946	----	3282-F	1 year	----	5 mg. sample; 1 month cooling.
7	Np^{237}	11 Feb. 1946	2 May 1946	25 Sept. 1946	1566-F	145 Days	11 Oct. 1946	5 mg. sample; completed.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
8	U^{238}	11 Feb. 1946	2 April 1946	18 April 1946	3378-F	16 Days	2 May 1946	10 g. samples; completed.
9-1	Be Oxide & Be Oxide + U Oxide	---*	30 April 1946	28 May 1946	3574-D	28 Days	12 June 1946	8 slugs; completed.
9-2	Be Oxide & Be Oxide + U Oxide	---*	4 June 1946	6 Aug. 1946	3574-D	63 Days	6 Sept. 1946	8 slugs; completed.
9-3	Be Oxide & Be Oxide + U Oxide	---*	2 May 1946	25 Sept. 1946	1565-F	145 Days	11 Oct. 1946	8 slugs; completed.
10-A	Samarium Oxide	6 April 1946	2 May 1946	25 Sept. 1946	1565-F	145 Days	11 Oct. 1946	1 slug; completed.
10-B	Gadolinium Oxide	----	----	----	----	----	----	Postponed
11	Radium	26 Sept. 1946	2 Oct. 1946	----	"B" Test Hole-F Pile	120 Days	----	1 sample; 30 days cooling.
12-A	U^{235}	----	----	----	----	----	----	Postponed
12-B	Pu^{239}	6 April 1946	18 April 1946	----	3378-F	400 Days	----	1 slug; 1 month cooling.

* Six of these slugs were received on 6 April 1946; 17 on 19 April 1946; 1 on 2 May 1946; and 1, replacing a leaking slug, on 23 May 1946.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
13-1	Beryllium Nitride	1 July 1946	24 July 1946	2 Oct. 1946	1474-F	69 Days	11 Oct. 1946	55 slugs; shipped.
			24 July 1946	----	3274-F	Indefinite	----	34 slugs; 2 weeks cooling.
13-2	Beryllium Nitride	8 July 1946	6 Aug.	----	3169-D	Indefinite	----	30 slugs;
			7 Aug. 1946	----	2666-F	Indefinite	----	30 slugs; 2-3 weeks cooling.
13-3	Beryllium Nitride	4 Oct. 1946	[redacted]	----	----	Indefinite	----	260 slugs
13-4	Beryllium Nitride	4 Oct. 1946	----	----	----	Indefinite	----	36 slugs
14-1	Alloys of Aluminum & Uranium	14 Dec. 1946	----	----	----	90 Days	----	1 slug
14-2	Alloys of Aluminum & Uranium	14 Dec. 1946	----	----	----	180 days	----	1 slug
14-3	Alloys of Aluminum & Uranium	14 Dec. 1946	----	----	----	1 year	----	1 slug
15	Lithium Fluoride	5 March 1946	2 April 1946	18 April 1946	3378-F	16 Days	2 May 1946	8 slugs; completed.
15-1	Lithium Fluoride	20 May 1946	25 June 1946	20 Aug. 1946	1579-D	56 Days	6 Sept. 1946	17 slugs; completed.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
15-2	Lithium Fluoride	24 June 1946	16 July 1946	17 Sept. 1946	2682-D	62 Days	11 Oct. 1946	36 slugs; completed
15-3	Lithium Fluoride	13 July 1946	6 Aug. 1946	8 Oct. 1946	2082-D	63 Days	15 Nov. 1946	24 slugs;
			7 Aug. 1946	2 Oct. 1946	1569-F	56 Days	11 Oct. 1946	24 slugs; completed
15-4	Lithium Fluoride	15 Aug. 1946	3 Sept. 1946	6 Nov. 1946	1579-D	63 Days	15 Nov. 1946	2 slugs;
							19 Nov. 1946	21 slugs;
			3 Sept. 1946	6 Nov. 1946	3274-D	63 Days	15 Nov. 1946	12 slugs;
			4 Sept. 1946	5 Nov. 1946	2374-F	62 Days	15 Nov. 1946	36 slugs;
							19 Nov. 1946	14 slugs;
			17 Sept. 1946	26 Nov. 1946	2682-D	69 Days	17 Dec. 1946	14 slugs; completed.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and File	Appx. Exp. Time	Date Shipped	Remarks
15-5	Lithium Fluoride	20 Aug. 1946	17 Sept. 1946	26 Nov. 1946	2682-D	69 Days	17 Dec. 1946	22 slugs;
			1 Oct. 1946	26 Nov. 1946	2374-D	56 Days	17 Dec. 1946	34 slugs;
			1 Oct. 1946	26 Nov. 1946	2666-D	55 Days	17 Dec. 1946	31 slugs;
			2 Oct. 1946	27 Nov. 1946	1474-F	55 Days	17 Dec. 1946	19 slugs;
			2 Oct. 1946	27 Nov. 1946	1569-F	55 Days	17 Dec. 1946	36 slugs;
			2 Oct. 1946	27 Nov. 1946	2082-F	55 Days	17 Dec. 1946	35 slugs;
			2 Oct. 1946	27 Nov. 1946	2682-F	56 Days	17 Dec. 1946	21 slugs; completed.
15-6	Lithium Fluoride	26 Aug. 1946	2 Oct. 1946	27 Nov. 1946	2682-F	55 Days	17 Dec. 1946	14 slugs; completed.
			8 Oct. 1946	17 Dec. 1946	2082-D	69 Days	----	24 slugs;*.
			15 Oct. 1946	17 Dec. 1946	1569-D	62 Days	----	26 slugs;*.
			16 Oct. 1946	4 Dec. 1946	1579-F	48 Days	17 Dec. 1946	36 slugs; completed.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
15-7	Lithium Fluoride	16 Sept. 1946	15 Oct. 1946	17 Dec. 1946	3179-D	62 Days	----	32 slugs; *.
			16 Oct. 1946	4 Dec. 1946	1579-F	48 Days	17 Dec. 1946	2 slugs; completed
			16 Oct. 1946	26 Dec. 1946	3179-F	70 Days	----	35 slugs; *.
			24 Oct. 1946	17 Dec. 1946	1474-D	53 Days	----	18 slugs; *.
			5 Nov. 1946	----	3169-F	Indefinite	----	13 slugs *.
15-8	Lithium Fluoride	23 Sept. 1946	24 Oct. 1946	17 Dec. 1946	2066-D	53 Days	----	27 slugs; *.
			5 Nov. 1946	17 Dec. 1946	1579-D	42 Days	----	23 slugs; *.
			5 Nov. 1946	----	2374-F	Indefinite	----	39 slugs; *.
			5 Nov. 1946	----	3169-F	Indefinite	----	10 slugs; *.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and File	Appx. Exp. Time	Date Shipped	Remarks
15-9	Lithium Fluoride	4 Oct. 1946	6 Nov. 1946	17 Dec. 1946	3274-D	42 Days	----	12 slugs; *.
			26 Nov. 1946	----	2374-D	Indefinite	----	21 slugs; *.
			26 Nov. 1946	----	2666-D	Indefinite	----	31 slugs; *.
			26 Nov. 1946	----	2682-D	Indefinite	----	36 slugs; *.
			27 Nov. 1946	----	1474-F	Indefinite	----	19 slugs; *.
			27 Nov. 1946	----	1569-F	Indefinite	----	23 slugs; *.
			27 Nov. 1946	----	2082-F	Indefinite	----	26 slugs; *.
			27 Nov. 1946	----	2682-F	Indefinite	----	26 slugs; *.
			4 Dec. 1946	----	1579-F	Indefinite	----	6 slugs; *.
15-10	Lithium Fluoride	11 Nov. 1946	26 Nov. 1946	----	2374-D	Indefinite	----	13 slugs; *.
			4 Dec. 1946	----	1579-F	Indefinite	----	19 slugs; *.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
15-10	Lithium Fluoride	11 Nov. 1946	17 Dec. 1946	-----	1474-D	Indefinite	----	27 slugs; *.
			17 Dec. 1946	----	1569-D	Indefinite	----	26 slugs; *.
			17 Dec. 1946	----	1579-D	Indefinite	----	23 slugs; *.
			17 Dec. 1946	----	2066-D	Indefinite	----	27 slugs; *.
			17 Dec. 1946	----	2082-D	Indefinite	----	24 slugs; *.
			17 Dec. 1946	----	3179-D	Indefinite	----	32 slugs; *.
			17 Dec. 1946	----	3274-D	Indefinite	----	27 slugs; *.
			26 Dec. 1946	----	2066-F	Indefinite	----	23 slugs; *.
			26 Dec. 1946	----	3179-F	Indefinite	----	26 slugs; *.
			----	----	----	Indefinite	----	132 slugs; to be charged in Jan. 1947

* Cooling time will depend upon date transportation is available after discharge.

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STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
16-1	95 ^{241}	6 April 1946	2 May 1946	25 Sept. 1946	1565-F	146 Days	25 Sept. 1946	1 slug; completed.
16-2	95 ^{241}	6 April 1946	18 April 1946	----	3378-F	400 Days	----	1 slug; 44 hours cooling.
17	Graphite	----	17 Dec. 1944	12 Mar. 1946	"D" Test Hole-D Pile	----	22 Mar. 1946	16 pound sample; completed.
17-1	Graphite	----	17 Dec. 1944	12 Mar. 1946	"D" Test Hole-D Pile	----	12 June 1946	16 pound sample;
			----	----	----	----	12 June 1946	Assorted test hole pieces; completed.
17-2	Graphite	----	25 Feb. 1945	20 June 1946	"D" Test Hole-F Pile	----	8 July 1946	16 pound sample; completed.
18	Lead-Cadmium	----	4 June 1945	18 Jan. 1946	2669-D	487 MWD/CT	2 May 1946	1 poison slug; completed.
18-1	Lead-Cadmium	----	31 Dec. 1945	25 June 1946	1579-D	176 Days	6 Sept. 1946	Approx. Duplicate of Request 18; completed.
19	Mercury	12 June 1946	2 July 1946	15 Oct. 1946	1666-D	105 Days	19 Nov. 1946	1 slug; completed.
20	Thallium Nitrate	13 July 1946	7 Aug. 1946	4 Dec. 1946	2271-F	119 Days	17 Dec. 1946	1 slug; completed.

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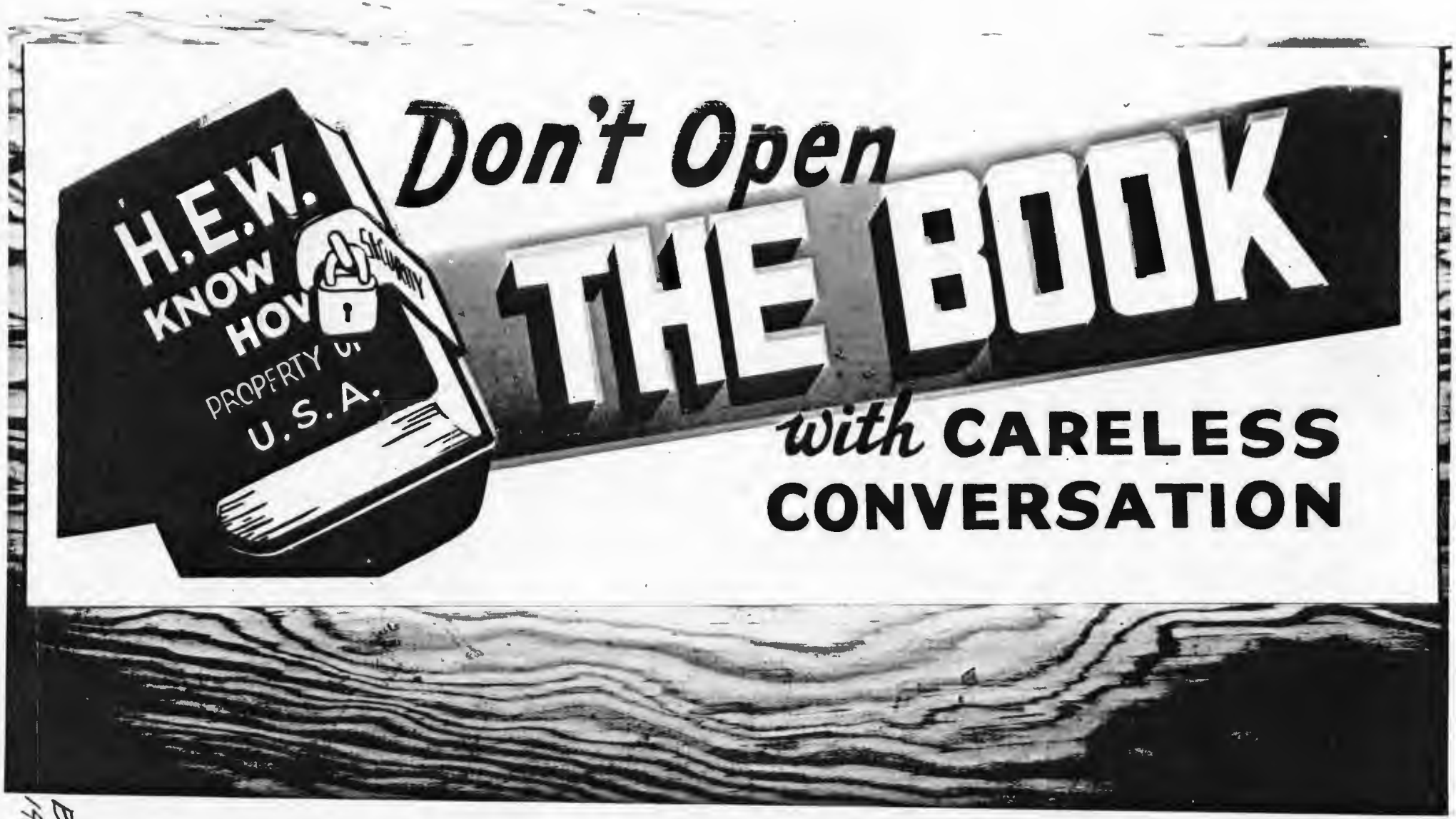
STATUS OF SPECIAL REQUEST SAMPLES AS OF 31 DECEMBER 1946

Req. No.	Material	Date Received	Date Charged	Date Discharged	Channel and Pile	Appx. Exp. Time	Date Shipped	Remarks
21, 22, 23	----	----	----	----	----	----	----	No details.
24	Fabrication of X-Slugs		----	----	----	----	Final shipment on Nov. 2 1946	33,629 slugs; completed.
25-1	Beryllium Nitride	29 May 1946	2 July 1946	6 Aug. 1946	2878-D	35 Days	20 Aug. 1946	1 slug; completed.
25-2	Beryllium Nitride	29 May 1946	4 June 1946	6 Aug. 1946	3574-D	63 Days	20 Aug. 1946	1 slug; completed.
25-3	Beryllium Nitride	29 May 1946	25 June 1946	8 Oct. 1946	2669-D	104 Days	12 Nov. 1946	1 slug; completed.
26	Antimony	1 Oct. 1946	4 Dec. 1946	----	"B" Test Hole-F Pile	60 Days	----	1 slug;
27	Calcium Oxide	----	----	----	----	100-300 Days	----	2 slugs; 1-2 weeks cooling.
28	Iron	----	----	----	----	100 Days	----	2 slugs; 1-2 weeks cooling.
29	Phosphorus	----	----	----	----	30 Days	----	2 slugs; 24-48 hours cooling.

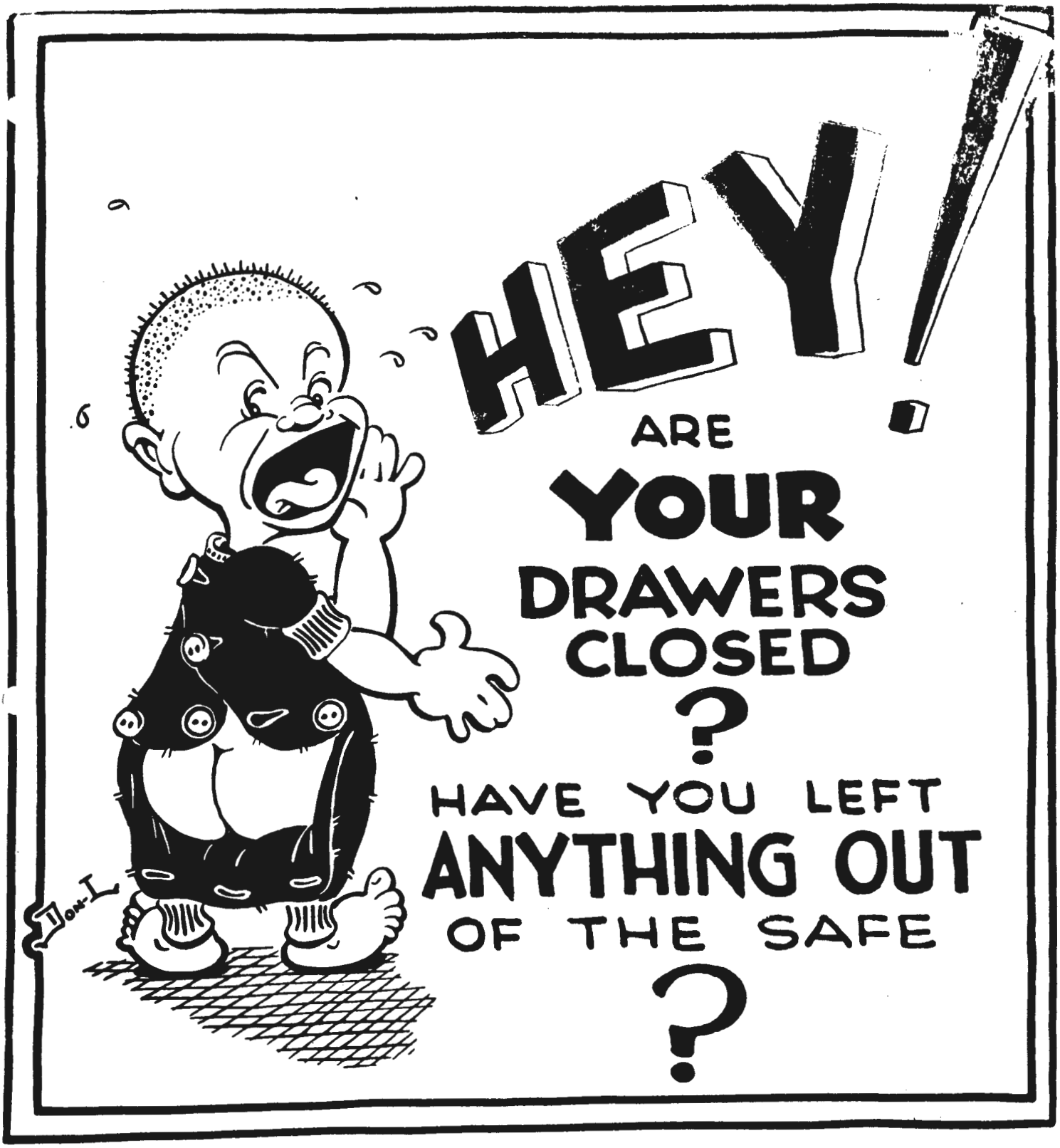
[redacted]

Example of Small Poster

Example of Small Poster



B.
14



Example of ermanent type reminder

Example of Large Poster

UNITED STATES OF AMERICA

PERSONNEL SECURITY QUESTIONNAIRE

READ INSTRUCTIONS ON SEPARATE SHEET BEFORE ANSWERING

BUDGET BUREAU NO. 49-R036
APPROVAL EXPIRES 31 DEC 1946

TYPE OR PRINT ALL ANSWERS

1. LAST NAME — FIRST NAME — MIDDLE NAME

2. OTHER NAMES (include maiden name, if married woman)

3. ADDRESSES (Apt. or R. D. F. No., Street, City, State, and dates there)

4. NORMAL HOME ADDRESS OR PRINCIPAL RESIDENCE FOR PAST 10 YEARS

5. SCHOOL LAST ATTENDED (address and dates)

6. MILITARY SERVICE
COUNTRY
FROM TO

8. DESCRIPTION ☐ MALE ☐ FEMALE

RACE	HEIGHT	WEIGHT	COLOR EYES	COLOR HAIR

9. MARITAL STATUS

10. BIRTH DATE

11. BIRTHPLACE (city, county, state or country)

12. CITIZENSHIP
IF NATURALIZED: DATE
CERTIFICATE NUMBER
PLACE
IF ALIEN: PORT OF ENTRY
DATE
ALIEN REGISTRATION NUMBER

7. FOREIGN COUNTRIES VISITED (since 1930)

COUNTRY	DATE LEFT U. S. A.	DATE RET'D U. S. A.	PURPOSE

13. DRAFT CLASSIFICATION ORDER NO.
BOARD NO. AND ADDRESS

14. SOCIAL SECURITY NO.

15. RELATIVES (parents, spouse, children, brothers and sisters, living or dead)

RELATION	NAME IN FULL	ADDRESS	COUNTRY OF BIRTH	PRESENT CITIZENSHIP

16. ORGANIZATION MEMBERSHIP
NAME, ADDRESS, TYPE, OFFICE HELD AND INCLUSIVE DATES

17. EMPLOYMENT (include periods of unemployment and employment from 1935 to date)

POSITION	NAME OF EMPLOYER	ADDRESS	PSQ	FROM	TO

18. REFERENCES (name three citizens, not relatives or employers, who are well acquainted with you)

NAME	ADDRESS	YRS. KNOWN

TO BE FILLED OUT BY AGENCY OR FIRM EMPLOYING

19. AGENCY OR FIRM EMPLOYING

ADDRESS

DATE

SERVICE COMMAND NUMBER

20. DESCRIPTION OF EMPLOYEE'S DUTIES

21. SIGNATURE AND TITLE OF APPROVING AUTHORITY

22. USUAL SIGNATURE OR MARK OF EMPLOYEE

R ☐ S ☐

REQUESTER COMPLETE BLOCK ON BACK

ADDITIONAL SPACE FOR ANSWERS

ADDRESSES (CONTINUED): (APT. OR R. F. D. NO., STREET, CITY, STATE, AND DATES THERE)

FOREIGN COUNTRIES VISITED (CONTINUED): (SINCE 1930)

COUNTRY	LEFT U. S. A.	RETURNED U. S. A.	PURPOSE

RELATIVES (CONTINUED): (PARENTS, SPOUSE, CHILDREN, BROTHERS, SISTERS, LIVING OR DEAD)

RELATION	NAME IN FULL	ADDRESS	COUNTRY WHERE BORN	PRESENT CITIZENSHIP

EMPLOYMENT (CONTINUED): (ACCOUNT FOR ALL TIME FROM 1935 TO DATE, INCLUDING PERIODS OF UNEMPLOYMENT)

NAME OF EMPLOYER	ADDRESS	POSITION	PSQ	FROM	TO

REMARKS

MAIL REPORT TO—

REPORT SHOULD BE MAILED

- ☐ UNCLASSIFIED
- ☐ RESTRICTED
- ☐ CONFIDENTIAL

☆U. S. GOVERNMENT PRINTING OFFICE: 1944 16—41607-1

No.	Description	Location
11	Plutonium Production Study Submitted by the Contractor on 23 December 1944	See Top Secret Appendix
12	Plutonium Production Study Submitted by the Contractor on 21 April 1945	See Top Secret Appendix
13	Lanham Act (Public 849, 76th Congress, 54 Stat. 1125, USC Title 42, Sec. 1521	U.S.Government P Washington, D.C.
14	Bids of Prospective Commercial Operators	Area Engineer H. Mail and Record 600.1 Facilities
15	Method of Selecting Commercial Operators	District Office and Area Engineer Mail and Record 600.1 Facilities
16	Hanford Technical Manual	See Note
17	Technical Progress Report	District Office and Area Engineer Classified Files 600.914

* Note

Copies of the Hanford Technical Manual are on file at the following offices:

Office of District Engineer, Oak Ridge, Tennessee
Office of Area Engineer, Richland, Washington
Office of du Pont Central Files, Richland, Washington
Office of Area Engineer, Chicago, Illinois
Office of Area Engineer, Santa Fe, New Mexico
Office of du Pont Files, Wilmington, Delaware

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MANHATTAN DISTRICT HISTORY

BOOK IV - X10 PROJECT

VOLUME 6 - OPERATION

APPENDIX C

REFERENCES

No.	Description	Location
1	Bismuth Phosphate Process	H.E.W. Technical Manual, Sec.C. *
2	Slug Dissolving	H.E.W. Technical Manual, Sec.C. *
3	Extraction	H.E.W. Technical Manual, Sec.C. *
4	Decontamination	H.E.W. Technical Manual, Sec.C. *
5	Concentration	H.E.W. Technical Manual, Sec.C. *
6	Isolation	H.E.W. Technical Manual, Sec.C. *
7	Operating Procedures	District Office and Area Engineer H.E.W. Classifie Files .003
8	Technical and Operating Department Production Tests	Pile Production du Pont H.E.W. Central Files
9	Operating Standards	District Office and Area Engineer H.E.W. Classifie Files .003
10	Plutonium Production Study Submitted by the Office of the Area Engineer on 11 December 1944	See Top Secret Appendix

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MANHATTAN DISTRICT HISTORY

BOOK IV - X10 PROJECT

VOLUME 6 - OPERATION

APPENDIX D

SUPPLEMENTARY INFORMATION

No.	Description
1	Xenon Poisoning
2	The Wigner and Szilard Effects
3	G. E. plan for reactivation of 100-B Pile Area

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XENON POISONING

DEFINITION OF PILE POISONS

When a chain-reacting pile is working normally, the neutron birth-rate is exactly equal to the neutron death-rate. If the equilibrium is destroyed in favor of the death-rate, the pile will die. This unbalance can be accomplished either by the introduction or the creation within the pile of substances possessing the ability to absorb neutrons but not to reproduce them--at least not in compensating amounts. In varying degrees, many elements possess this capacity--a capacity which is measured by the extent of the effective cross section of the nucleus of the capturing atom. Such substances are known as poisons.

START-UP STUDIES OF PILE POISONS

Prior to the beginning of the operation of the Hanford Piles, it was well known that many fission products are formed as a result of pile action, accumulating in the uranium slugs. An evaluation of the probable effects of these products on pile reactivity was essential in order to determine what measures should be taken to counteract adverse influences if any were predicted. With this object in mind, rather comprehensive studies had been made before the start of pile operations. These studies indicated the following:

1. Poison effects by short-life fission products might be excluded from consideration because their absorption cross sections had to be far greater than the largest known values.

2. The formation of samarium 149 could produce poisoning of consequence, partly because of its large absorption cross section

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of 58,000 barns (1 barn = 1 x 10^{-24} sq. cm.^{2}), but its adverse influence on reactivity would eventually be overly compensated by reactivity promotional factors.

3. Poison effects would develop over a considerable period of time, but would cause no serious complications.

The foregoing review is a very brief summary of the state of the knowledge on the subject of poisons prior to the start-up of the Hanford Piles.

DISCOVERY OF XENON POISONING

The 100-B Pile had been loaded with 908 tubes of metal slugs, providing an excess reactivity of 34.2 inhours (inverse-hours). At 2248 of 26 September 1944, this unit became reactive and the manufacture of plutonium on a large scale may be said to have begun. At 0200 of the following morning, 27 September, the power level was raised to nine megawatts. Very shortly thereafter, the first indications of falling reactivity appeared. This surprising, puzzling, and dismaying phenomenon continued uninterruptedly until 1830 when the Pile died, even though at 1600 the power level had been reduced from nine megawatts to 0.4 megawatts.

SUGGESTED EXPLANATIONS

Diverse explanations of the cause or causes were advanced and tested when possible. Water, it was thought, had entered the Pile, conveyed either by the circulating of moist helium or through tube leakages. But subsequent helium analyses and tests with reduced water pressures showed this explanation to be fallacious. The deposition of chromium on the slug jackets, and the leakage of boron solutions into the thimbles of the

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safety rods from the third safety device were suggested as possibilities. These explanations, like several others, had to be discarded because no evidence was found to support them.

REACTIVATION OF THE 100-B PILE

It became possible to reactivate the Pile at 0400 on 28 September 1944 with an excess reactivity of 4.3 inhours at a power level of 0.2 megawatts. While running at this level, observations showed the reactivity to be steadily increasing, attaining 17.7 inhours at 1600. At 2000, the excess reactivity had become 21.5 inhours, and it was decided to try operating the Pile again at 9 megawatts. But, just as before, the reactivity soon began to fall; and at 0100 of 29 September, the power level was dropped to 0.2 megawatts. The minimum reactivity of 15.4 was reached at 0400, and immediately the upward trend was observed again.

REACTIVITY-TIME CURVE SHOWS XENON AS POISONING AGENT

A careful study of the reactivity-time curves, obtained from more detailed information of the kind just given, led to the explanation of the baffling phenomenon. The deductions from these curves indicated that a radioactive poison with a half life of less than 11 hours, having a parent with a half life of several hours, was responsible. The adduced facts pointed to a fission chain with a mass number of 135; namely, Tellurium (2 min.) to Iodine (6.6 hours) to Xenon (9.4 hours) to Cesium (25 years) to Barium (stable). From the accumulated evidence, it was proven that xenon-135 of this chain was the causative agent. Rough preliminary estimates indicated that xenon had a cross section of 7,000,000 barns, a value 70 times bigger than the largest cross section previously known, and that it occurred in an amount approximately equal to 2.6 per cent of

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the total fission products. These values are respectively 2.34 x 10^6 barns and 6.8 per cent on the basis of better data, obtained from Pile runs using 1500 tubes at 90 megawatt power level.

THE CLINTON PILE CLUE

A clue that might have led to the early discovery of xenon poison was afforded by an observation made of the Clinton Pile. Measurements were made of the loss of "k," the reproduction factor, as a function of temperature in the following way: (1) when the Pile was uniformly heated; (2) when the Pile was flashed to a power level sufficient to produce an appreciable rise in metal temperature without significant warming of the graphite; and (3) when the Pile was put in steady operation with known central metal temperature. The third effect could be calculated from the first and second effect. If no other effect were present, the difference between the measured value of the third effect and the calculated value should have been zero. But, when these computations were made, a small difference was found and, reasonably enough, attributed to experimental error. Actually, in light of later Hanford observations, it became the leading clue to the discovery of xenon-135 poisoning.

SUMMARY AND CONCLUSIONS OF SUBSEQUENT STUDIES AND OBSERVATIONS

The 100-B Pile was run with loadings of 1004, 1128, 1300, 1500, and 2004 tubes with excess reactivities of 120, 204, 290, 370, and 560 in-hours respectively. Experience, acquired with such Pile operations, and the results of simultaneously conducted studies yielded much information of value with regard to Pile poisons.

a. Beneficial Effects. - From a beneficial standpoint, it was learned that the poison concentration was highest at the center of

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the unit, thus helping to increase the power output for a given temperature rise by flattening the neutron density. Again, the xenon decay afforded a convenient method of calibrating control rods.

b. Adverse Effects. - Unfortunately, some of the effects produced by the poisoning were not so good. After a short shutdown, the amount of poison is increased. A prolonged shutdown can cause a temporary increase of poison large enough to shut the Pile down for ten hours or more unless special and rather awkward measures are taken to reactivate it. When the Pile is started up, after a protracted shutdown, a number of rods must be left in to compensate for the xenon decay. These rods distort the distribution of neutron density; and the maintenance of good temperature distribution, therefore, is difficult until the poison has grown to its equilibrium value. If the shutdown lasts roughly over twenty-five hours, the xenon decays to such an extent that the control rods are no longer capable of absorbing all the excess reactivity. It then becomes necessary to replace certain columns of heavy metal with columns of lead-cadmium ("poison") slugs. These poison columns are removed after the xenon poison is restored by power operation.

c. Present Status. - To date, the major problems of xenon poisoning are under satisfactory control. The existence of other short-lived poisons are definitely out of consideration. The Piles are all loaded similarly so that a simple poison formula which allows for direct formation and for flattening by poison columns is applicable to all three units, and predictions of xenon behavior are

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handled in a routine manner. Definite progress is being made on the devising of start-up procedures which will minimize transitory "hot spots" by establishing a suitable order of shim rod withdrawals.

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THE WIGNER AND SZILARD EFFECTS

INTRODUCTION

The primary purpose of the graphite in the Hanford Piles is to reduce the velocity of fast neutrons to ranges which are effective in the manufacture of plutonium. It is because of this function that the graphite is called a moderator of neutron velocities. The fast neutron collides with the nucleus of the carbon atoms and rebounds with less energy and momentum.

Neutrons, at the moment of birth, during the instant of uranic fission, have velocities roughly averaging 12,000 miles per second or energies approximately equal to two million electron-volts. In order to be effective in the production of plutonium, these energies must be reduced to, roughly, the range of 0.025 to 10 electron-volts or to velocities of 1 mile per second to 400 miles per second. On the average, each collision with a carbon nucleus reduces the energy of a fast neutron by about 14 per cent. Approximately then, each fast neutron must make 100 collisions before its energy or velocity is within the required limits.

Virgin or natural graphite is crystalline in structure in that its atoms are located in a definite geometrical position. These are the positions of maximum stability of graphite atoms with which the normal physical properties of the graphite are associated. The graphite atoms can be displaced by repeated collisions with neutrons into new, less stable positions; and the original geometric pattern is distorted. As a result, the normal physical properties are modified, as demonstrated by actual measurements. In their new positions, the graphite atoms possess

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more energy, the additional amount being acquired at the expense of the colliding neutrons. This new lattice structure will remain unaltered unless disturbed by some physical action. The action may cause the atom to spring back to its original position, thereby restoring the normal lattice and releasing energy in the form of heat as indicated by a temperature rise of the graphite. A sudden return of a very large number of such atoms might possibly result in an explosion of great violence.

WIGNER EFFECT, OR THE WIGNER DISEASE

Studies made before the start-up of the Hanford Piles showed that changes in the physical properties of graphite, such as thermal conductivity and mechanical strength, could be expected to follow the incessant and intense neutronic bombardment of the graphite. These changes are described as Wigner Effects or the Wigner Disease.

SZILARD EFFECT

As a further consequence of this bombardment, the distortion of crystalline lattice into new shapes would result in a storage of energy which subsequently might be triggered and released explosively. The latter implication was of the utmost concern. The phenomenon is known as the Szilard Effect.

PRELIMINARY MEASURES AND DISCUSSION

Early in the summer of 1944, results of experimental studies conducted at the Metallurgical Laboratory and the Clinton Laboratories indicated that large changes in mechanical strength and thermal conductivity of the graphite could be expected in a relatively short period of full-power operation of the Hanford Piles. According to these studies, irradiation of the graphite equal roughly to one day at 250 megawatts

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(Hanford level) produced 30 per cent decrease in thermal conductivity and 30 per cent increase in breaking strength. Less in thermal conductivity meant that the Piles might have to be operated at lower levels unless curative measures were taken; while increase in breaking strength implied the possibility of graphite embrittlement with subsequent crumbling.

For the purpose of coping with the Wigner Effect, preliminary procedures for cooperation between the Metallurgical Laboratory and the Contractor were set up. A group of men from the Technical Division of the Contractor were to follow the theoretical and long-range implications of the Hanford Pile operations, and to make certain that full use of the knowledge and facilities of the Metallurgical Laboratory was made. The 100-Area Technical Section was to assist the Production Department in carrying out the prescribed experimental program. A group of observers from the Metallurgical Laboratory were sent out to keep their Director informed of the progress and to advise him of the need of changes in emphasis or objectives of the Metallurgical Laboratory Program arising from Hanford events.

For a time the Wigner Effect posed the principal graphite problems. But on 28 August 1944, the first intimations of another effect, known as the Szilard Effect, intimately associated with the Wigner Effect, were received. This effect is concerned with the storage and sudden release of the energy acquired by carbon atoms as a result of the positional displacements produced by neutron bombardment. At that time, no provision had been made for either studying or coping with the problems of the Szilard Effect since it had not been anticipated earlier. As a

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result of preliminary studies, several methods of curing the Szilard Effect were suggested: (1) dry-chain reaction; (2) circulation of hot helium; and (3) the replacement of helium with carbon dioxide. Although these measures were directly aimed at curing the Szilard Effect, they would in a large measure contribute towards the removal of the Wigner Effect.

These curing measures were based on the principle of annealing the graphite. It was expected that an increase in the temperature would result in the return of the carbon atoms to their positions of maximum stability, thereby restoring the original condition of the graphite.

The Metallurgical Laboratory prepared recommendations on a program for graphite testing with special reference to the Szilard Effect. The testing program was considered adequate, especially with regard to its provisions for forecasting possible trouble as a result of sudden release of stored energy. The program was devised and called for: (1) the placing, in a special testhole in the 100-B Pile, of pre-irradiated samples of graphite which had been received from the Clinton Laboratories; (2) the introduction of samples of special capsules of graphite between the active metal slugs in the central columns of the 100-B Pile. Eight columns were charged with twenty-three capsules, prior to the start-up on 27 September 1944.

The capsule and testhole samples were made from a bar of graphite exposed in the Clinton Pile for an equivalent of 3½ days of Hanford operation at 250 megawatts. The use of pre-irradiated samples permitted a prediction of future performance of graphite in the Pile. In order to make sure that in case of loss of the 100-B Pile samples, the program

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would not be retarded, nine capsule samples were charged in a total of three channels of the 100-D Pile on 5 December 1944. No such samples were put in the 100-F Pile.

FINDINGS SINCE START-UP

The first Hanford graphite test results were summarized by the Technical Division for the benefit of the Metallurgical Laboratories in the middle of November 1944. At that time there was some evidence that the stored energy would reach a steady value. On 6 and 7 January 1945, Dr. Seitz, during his visit at Hanford, stated that it was improbable that there would be any danger from energy releasable below 500° Centigrade. In his final report, however, he indicated that there was danger from blocking off the water flow from four adjacent tubes when the power was down and the temperature was somewhat higher than 1250° Centigrade.

In February 1945, it was found that heating a sample at 150° Centigrade practically eliminated all release of energy at temperatures below 200° Centigrade. This margin of annealing above the temperature of exposure has since proved very important in insuring the safety of the unit. About that time, the evidence was very strong that the changes in the physical properties of the graphite were approaching limiting values; and that the rate of release of energy was proportional to the amount of stored energy; and further, the rate of release increased rapidly with temperature.

The energy stored in capsule samples located in selected Pile channels, as a result of a given exposure (megawatt days per central ton), is 1.3 times as great as the energy stored in a testhole sample. This fact

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would permit a prediction in the change of the physical properties of graphite 30 per cent ahead of time. In February - March 1945, it appeared that the changes in thermal conductivity of graphite samples from the 100-B testhole were consistent with the changes in graphite power coefficient and graphite period that were observed in the operation of the Piles.

Arrangements were made with Dr. Rossini of the National Bureau of Standards to determine the heat of combustion of the exposed samples of graphite. This procedure would give absolute measurement of stored energy. The first values obtained on samples exposed 167 megawatt-days per central ton of metal showed 102 calories per gram more energy of combustion than an unexposed blank. A second determination on a sample that had been annealed at 1000° Centigrade showed 28 calories per gram more than the blank. The amount of energy stored below 350° Centigrade was also determined by Rossini, and the results were compared with those obtained with the Sykes differential method as employed at Hanford. The comparison showed that the Sykes method gave values half as large as the Rossini values. Close correlation was observed between X-ray measurements of graphite samples and those Rossini results which showed how annealing affects the stored energy.

An interim report on the Wigner and Szilard Effects was completed on 9 November 1945. It is a compendium of the results obtained, both experimentally and theoretically, relating to the solutions of the graphite problems.

According to the interim report, heavily irradiated samples of graphite experienced a sudden rise in temperature of 100° Centigrade

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within 10 seconds when the sample was raised to a critical temperature after removal from the Pile.

If a Pile temperature rise of 100° Centigrade is superimposed on 100° Centigrade of a sudden energy release, a jump of 200° Centigrade in temperature of the matrix of the Pile would occur. Under such operating conditions, the following consequences might follow:

1. The thimbles may reach a temperature of roughly 350° Centigrade, well below the melting point of aluminum (650° Centigrade).

2. The graphite may increase in dimensions by 0.8 inch which, it is believed, would not have serious consequences.

3. The quick liberation of energy in the graphite would put an extra load on the water. If the water were lost by boiling, the reactivity would increase by about two per cent. However, the graphite in its present irradiated condition is a much poorer conductor of heat, having a characteristic period for transfer of heat from graphite to water of about 40 minutes. The cooling water requires 1½ seconds to traverse the active part of the Pile. If the power level is under control, it seems that the transfer of heat to the water would be too diffuse in point of time to cause serious damage.

4. The most serious effect of a temperature rise of 200° Centigrade would be a sudden jump in reactivity of roughly 140 inhours; for 100 inhours the power would become 2.7 times greater at the end of 15 seconds; for 200 inhours it would reach the same level in 8 seconds. The fear of the possible loss of water in such cases is then well-founded. This loss of water might thus be followed

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subsequently by a further and dangerous rise in power level.

As a practical and useful consequence of earlier studies on the graphite problems, conditions of Pile operations were defined, under which there was a small probability of the rapid release of stored energy. Based on these conditions, a procedure for Pile start-ups was adopted and put into effect. The latest results of the interim report, bearing on this procedure, show that the procedure as established is conservative.

According to this procedure, the graphite temperature may rise at any rate to 8° Centigrade above the immediately previous operating steady-state value. The steady-state temperature for this purpose is one that has been established for four days, or more, of Pile operation. The rate of rise beyond 8° Centigrade above the previous steady-state temperature shall not exceed 4° Centigrade per hour. A rise of 8° Centigrade corresponds to a power level increase of 20 megawatts when no distortion of the relative graphite temperatures results from adjustments of poison column or control rods. At 4° Centigrade per hour, rate of temperature increase corresponds to a uniform power level increase of 10 megawatts per hour. This limiting temperature rate is not exceeded when sudden rises of 5 megawatts are made 1 hour apart.

CONCLUSION

As of December 1946, the problems of the Wigner and Szilard Effects continue active. Additional experimental data have been obtained on the rate of release of stored energy; and refinements in the interpretation of stored energy data obtained by the Sykes method have brought these data into good agreement with the results of Rossini. A useful and versatile theory of energy spectrum. In the development of this theory, it

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has been demonstrated that annealing occurs not only as a result of ordinary thermal processes, but also as a result of neutronic bombardment. On the basis of the theory, reasonable assurance against any catastrophic release of stored energy has been provided by imposing limits on the rate at which the graphite temperature may be allowed to rise during a power change; and the practical application is the procedure mentioned previously.

[redacted]

[redacted] October 1, 1946

ANNEX I

ACCOUNTING:

For a short period of time the area could operate with no additional help by receiving some assistance from D and F areas.

ELECTRICAL:

By neglecting some preventative maintenance work during the emergency period, sufficient manpower can be made available for coverage.

FIRE:

Full fire protection is now being provided for the 100-B Area. No additional manpower will be required.

H.I.:

Shift coverage can be obtained by having the shift men who now divide their time equally between D and F Areas to spend equal time in B, D, and F Areas. Sufficient day supervision will be available.

INSTRUMENT:

By neglecting some preventative maintenance work during the emergency period sufficient manpower can be made available for coverage. An engineer who is now on special assignment will serve as a supervisor in this period.

MAINTENANCE:

By neglecting some preventative maintenance work during the emergency period sufficient manpower can be made available for coverage.

MEDICAL:

The Medical Department personnel works in all plant areas. By reducing the time spent in each of the areas, sufficient coverage for B Area can be obtained without hiring additional personnel.

"P":

For complete coverage in 100 B, D, and F it will be necessary to obtain five (5) operators. These men can be made immediately available from the 300 Area.

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[redacted]

October 10, 1946

PLAN I

ACCOUNTING:

For a short period of time the area could operate with no additional help by receiving some assistance from D and F Areas.

ELECTRICAL:

By neglecting some preventative maintenance work during the emergency period, sufficient manpower can be made available for coverage.

FIRE:

Full fire protection is now being provided for the 100-B Area. No additional manpower will be required.

H.I.:

Shift coverage can be obtained by having the shift men who now divide their time equally between D and F Areas to spend equal time in B, D, and F Areas. Sufficient day supervision will be available.

INSTRUMENT:

By neglecting some preventative maintenance work during the emergency period sufficient manpower can be made available for coverage. An engineer who is now on special assignment will serve as a supervisor in this period.

MAINTENANCE:

By neglecting some preventative maintenance work during the emergency period sufficient manpower can be made available for coverage.

MEDICAL:

The Medical Department personnel works in all plant areas. By reducing the time spent in each of the areas, sufficient coverage for B Area can be obtained without hiring additional personnel.

"P":

For complete coverage in 100 B, D, and F it will be necessary to obtain five (5) operators. These men can be made immediately available from the 300 Area.

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overtime is estimated to be approximately $245,000 in addition to Plan I and approximately $200,000 in addition to Plan II.

It should be pointed out that the requirements of Plan I can only be met by reducing the operating personnel to an absolute minimum in all pile areas, the one exception being the Fire Department which is already located in the B Area. Furthermore, a large number of experienced supervisors have been lost due to the change of Contractors and consequently some risk would be entailed in starting the Area under Plan I. It is therefore recommended that this plan not be put into effect except in case of an extreme emergency.

W. H. MILTON, JR.
ADMINISTRATOR

CNG:rd

Attachment

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HANFORD ENGINEER WORKS

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G.E. NUCLEONICS PROJECT

GENERAL ELECTRIC COMPANY

Copies #1, #2, #3, #4, - AEC Attn: C. Shugg
#5 - Extra
#6 - Extra
#7 - Extra
#8 - Extra
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October 16, 1946

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Dist. 5.91

Copy 1/

THE AREA ENGINEER
HANFORD ENGINEER WORKS

REF: EIDM PT 311.5

The study requested in your letter of September 3, 1946 for placing the 100 B Area in operation is herewith presented. Three plans were necessary for the study. The metal requirements are attached to the three plans as a separate portion of this report.

Plan I

This plan gives schedules, cost estimates and manpower requirements on the shortest possible time in which the Area can be started.

a. Time - 10 days to 2 weeks.

b. Direct cost - Approximately $40,000 above present operating costs.

c. All personnel in all departments in all pile areas will be required to work 48-hours a week.

Plan II

This plan gives the same information as Plan I but performs the work in a more normal manner.

a. Time - 30 days.

b. Direct cost - Approximately $50,000 above present operating costs.

c. In this plan only the Power, P and Instrument Departments will be required to go to a 48-hour work week.

Plan III

This plan follows Plan I or Plan II. It is presented to show the additional manpower requirements necessary to return the plant to a normal 40-hour work week and normal crews in all areas. In this plan it is assumed that the additional manpower can be hired and trained in a period of 120 days after Plan I or Plan II is put into effect. The additional cost of procuring and training new personnel with the required

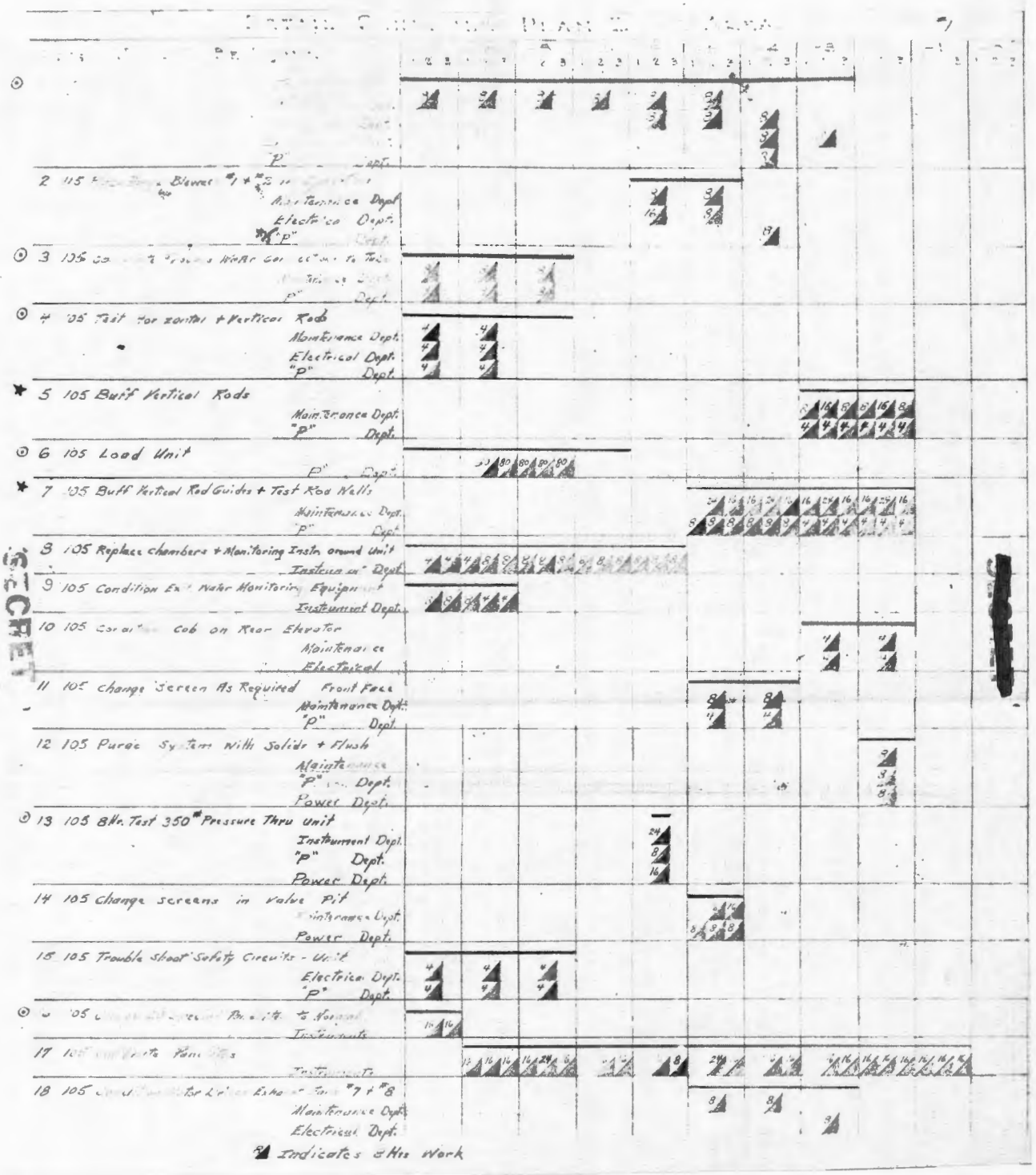
[redacted]

MASTER SCHEDULE PLAN I. 100-B AREA.

	№	BLDG	JOBS TO BE DONE.	-10.	-9.	-8.	-7.	-6.	-5.	-4.	-3.	-2.	-1.	-0.
⊙	1.	115	Place Purification Room In Operation											
	2.	115	Place Purge Blower #1 & #2 In Operation											
⊙	3.	105	Complete Process Water Connections In Tubes											
⊙	4.	105	Test Horizontal Rods & Vertical Rods											
★	5.	105	Buff Vertical Rods											
⊙	6.	:	Load Unit											
★	7.	.	Buff Vertical Rod Guides & Fast Rod Wells											
	8.	.	Replace Chambers & Reinforcing Instr Around Pile.											
	9.	:	Condition Exit Water Monitoring Equipment											
	10.		Condition Coo on Rear Elevator											
	11.		Change Screens As Required 4" front face											
	12.	.	Purge System With Solids & Flush											
⊙	13.		Air Test 350# Pressure Flow Thru Unit											
	14.		Change Screens In Valve Pit											
	15.	.	Trouble Shoot Safety Circuits - Units											
⊙	16.		Change 20 Special Panelites To Normal											
	17.	.	3" Crate Panelites											
	18.	.	Condition Motor Driven Exhaust Fans #7 & #8.											
	19.		Turbine Driven Fans 2, 4, 5, 9, 10.											
	20.		Elec. Driven Air Compressor #3											
	21.		Condition Gas Sampling Primes.											
	22.		Condition Riser Valve Stems Front & Rear											
	23.		Condition Air Heaters In Storage Area											
	24.		Condition Buffalo Heaters											
	25.	:	Condition Hydraulic Lifts (3).											
	26.		Condition Scales #1, #2, #3, #4, #5, #6.											
	27.	107	Replace Monitor & Intermediate Monitor Service											
	28.	.08	Check Lines, Put Rotometers and pres.											
	29.	181	Reconnect Steam Supply to 181.											
	30.		Condition Turbine Driven Pumps #6, #7, #16.											
	31.		Check Lines, Put Manometers & Gauges In Service											
	32.	.82	Emergency Reservoir Pumps #2, #3, #4											
⊙	33.	.	Filter Supply Pumps 4, 5, 6, 7, 8.											
	34.		Check Lines, Put Manometers & Gauges In Service											
	35.	183	Condition Flocculators 8, 9, 10, 11, 12 & 13.											
⊙	36.	.	Condition Mixers 3 & 4.											
	37.	:	Condition Lime Feeders #3 & #4.											
	38.	:	Coag. Feeders #3 & #4.											
	39.	.	Turbine Driven Emergency Pumps.											
	40.	.	Restore North Cone Valve, Metering & Contr. System.											
	41.	144	Steam Generator #3											
	42.	.	Steam Generator #4.											
	43.	.	Phosphate pumps.											
⊙	44.	185	5 Ph Meters, 5 Flow Contr. & Metering System											
⊙	45.	:	Sodium Silicate pumps #6, #7, #8, #9, #10.											
⊙	46.	:	Dichromate pumps #6, #7, #8, #9, #10.											
⊙	47.	:	Acid Pumps 6, 7, 8, 9, 10.											
	48.	:	Condition Contr. Panels for Chemical Feed Pumps											
	49.	190	Change Oil In 12 Process Pump Motors											
	50.	:	Set Master Regulators											
	51.	.	Check Calibration of 8 Control Systems											
	52.	1701	Install Electrometers & Put In Service											
	53.	1704	Air Conditioning Units											

★ To Be Done If Required.

⊙ Point Of Reference To Schedule Necessary For Completion In Specified Time.


"P" Dept.
Maintenance Dept.
Electrical Dept.
"P" Dept.
Instrument Dept.
Power Dept.
Indicates 8 Hrs Work

DETAIL SCHEDULE. PLAN I. 100-B AREA. *Continued* #2

No.	Bldg	Jobs To Be Done	-10 (1 2 3)	-9 (1 2 3)	-8 (1 2 3)	-7 (1 2 3)	-6 (1 2 3)	-5 (1 2 3)	-4 (1 2 3)	-3 (1 2 3)	-2 (1 2 3)	-1 (1 2 3)	-0 (1 2 3)
19	105	Turbine Driven Fans #3, 4, 6, 9, 10 Maintenance Dept.		40	40	40	40	32	40	40			
20	105	Electric Driven Air Compressor #9 Maintenance Dept. Electrical Dept.		3	 3								
21	105	Condition Gas Sampling Pumps Maintenance Dept. Electrical Dept.				8	8 4						
22	105	Condition Riser Valves Front + Rear Maintenance Dept. "P" Dept.	4 4	4 4	8 4								
23	105	Condition Unit Heaters In Storage Area Maintenance Dept. Electrical Dept.				4	4 4	8 4					
24	105	Condition Buffalo Heaters Maintenance Dept. Electrical Dept.				4	4 4	8 4					
25	106	Condition Hydraulic Lifts (3) Maintenance Dept.									16	16	
26	105	Condition Scales #1, #2, #3, #4, #5, #6 Maintenance Dept. Electrical Dept.									8	8 4	
27	107	Restore "B" Monitor + Intermediate Monitor Service Instrument Dept.		8	8	8							
28	108	Check Lines, Put Rotameters and gauges in Service Instrument					4	4	4				
29	181	Reconnect Steam Supply To 181 Bldg Maintenance Dept.	12										
30	181	Condition Turbine Driven Pumps #6, 7, 8 Maintenance Dept.						44	60	60	60	60	
31	181	Check Lines, Put Manometers + Gauges in Service Instrument Dept.					4 4 4	4 4 4					
32	182	Emergency Reservoir Pumps #2, #3, #4 Maintenance Dept.				30	30	30	30				
⊙ 33	182	Filter Supply Pumps #4, #5, #6, #7, #8 Maintenance Dept. Electrical Dept.		40 20	40 20	40 20							
34	182	Check Lines, Put Manometers + Gauges In Service Instrument Dept.							8	16			
35	183	Condition Flocculators 8, 9, 10, 11, 12, 13 Maintenance Dept. Electrical Dept.	20 4	20 4	20	20 4	20 4						
⊙ 36	183	Condition Mixers #3 + #4 Maintenance Dept. Electrical				4 4	4 4						
37	183	Condition Lime Feeders #3 + #4 Maintenance Dept. Electrical Dept.						4 4	8 4				
38	183	Coag Feeders #3 + #4 Maintenance Dept. Electrical Dept.						8 4	8 4				
39	183	Turbine Driven Emergency Pumps Maintenance Dept.							30	30	30	30	
40	183	Restore North Cone Valve, Metering + Control system Instrument Dept.							16	16	16		

8▲ Indicates 8 Hrs. Work

[redacted]

Detail Schedule Plan I [illegible]-B.[illegible] continued #3

Work to Be Done	[illegible] 1 2 3	1 2 3	[illegible] 2 3	[illegible] 2 3	[illegible] 1 2 3	[illegible]	[illegible]	-3	-2	-1	[illegible]
[illegible] Steam Generator #3											
Maintenance Dept.	40	40	40	40							
Electrical Dept.				4							
Instrument Dept.			16	16							
42 184 Steam Generator #4											
Maintenance Dept.				10	40	32	40				
Electrical Dept.							4				
Instrument Dept.						16	10				
43 184 Phosphate Pumps											
Maintenance Dept.								8	8		
Electrical Dept.									4		
44 [illegible] 5 PH Meter, 5 Flow Cont. & Metering Systems											
Instrument Dept.				24	24	16	24	24			
45 185 Sodium Silicate Pumps #6, #7, #8, #9, #10											
Maintenance Dept.	8	8	8	8	8						
Electrical Dept.	4	4	4	4	4						
46 185 Dichromate Pumps #6, #7, #8, #9, #10											
Maintenance Dept.	8	8	8	8	8						
Electrical Dept.	4	4	4	4	4						
[illegible]7 185 Acid pumps 6, 7, 8, 9, 10											
Maintenance Dept.	8	8	8	8	8						
Electrical Dept.				4	4						
[illegible] 185 Condition Cont. Panels for Chemical Pumps											
Electrical Dept.						4	4				
[illegible] 190 Change Oil In 12 Process Pump Motors											
Electrical Dept.							4	8			
50 190 Set Meter Regulators											
Instrument Dept.								8	8	8	
51 190 Check Calibration of E Control Systems											
Instrument Dept.								8	8	8	
52 1701 Install [illegible] & Put In Service											
Instrument Dept.						8	8				
53 1701 Air Conditioning unit											
Instrument Dept.			4	4							
Maintenance Dept.			4	4							
Electrical Dept.			4	4							
Total Maintenance Man Days	15	28	24	28	24	34	35	29	28	14	
" Electrical " "	3	5	6	6	5	5	4	3	1	1	
" Instrument " "	9	12	14	14	14	15	14	14	10	8	

◢ Indicates 8 Hrs. Work

PROTECTION:

No additional manpower will be required.

SERVICE:

For the start-up no additional manpower is required.

TECHNICAL:

During the start-up period the shift coverage will require at least two especially trained physicists per shift. These men can be obtained from the present technical group.

TRANSPORTATION:

The additional manpower requirements in supervision and operators can be met by upgrading through the different levels until a manpower shortage appears in the village labor. Shortage at this point can be tolerated for a short period.

POWER:

No additional manpower will be required.

[redacted]

[redacted]

PROTECTION:

No additional manpower will be required.

SERVICE:

For the start-up no additional manpower is required.

TECHNICAL:

During the start-up period the shift coverage will require at least two especially trained physicists per shift. These men can be obtained from the present technical group.

TRANSPORTATION:

The additional manpower requirements in supervision and operators can be met by upgrading through the different levels until a manpower shortage appears in the village labor. Shortage at this point can be tolerated for a short period.

POWER:

No additional manpower will be required.

[redacted]

[redacted]

ESTIMATED ADDITIONAL MATERIAL AND LABOR COSTS

100-B AREA

PLAN NO. I

DEPARTMENT	MATERIAL COST	LABOR COSTS	TOTAL	REMARKS
Accounting	--	507.00	507.00	
Electrical	105.00	1510.00	1615.00	
Fire	--	780.00	780.00	
H. I.	--	380.00	380.00	
Instrument	135.00	1620.00	1755.00	
Maintenance	200.00	3960.00	4160.00	
Medical	--	190.00	190.00	
"P"	--	4500.00	4500.00	
Power	8645.00	9800.00	18,445.00	
Protection	--	3440.00	3440.00	
Service	--	268.00	268.00	
Technical	--	170.00	170.00	
Transportation	450.00	2745.00	3195.00	
TOTAL	9535.00	29,870.00	39405.00	

SHEET 2 of 2

[redacted]

ESTIMATED ADDITIONAL MATERIAL AND LABOR COSTS

100-B AREA

PLAN NO. I

DEPARTMENT	MATERIAL COST	LABOR COSTS	TOTAL	REMARKS
Accounting	--	507.00	507.00	
Electrical	105.00	1510.00	1615.00	
Fire	--	780.00	780.00	
H. I.	--	380.00	380.00	
Instrument	135.00	1620.00	1755.00	
[redacted]aintenance	200.00	3960.00	4160.00	
[redacted]edical	--	190.00	190.00	
[redacted]	--	4500.00	4500.00	
Power	8645.00	9800.00	18,445.00	
Protection	--	3440.00	3440.00	
Service	--	268.00	268.00	
Technical	--	170.00	170.00	
Transportation	450.00	2745.00	3195.00	
TOTAL	9535.00	29,870.00	39405.00	

[redacted]

SHEET 7 of 24.

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ESTIMATED MAN POWER REQUIREMENTS

100-B AREA

PLAN NO. I

I	II		III		IV		V		VI		VII	
DEPARTMENT	PRESENT IN 100-B		REQUIRED 48 HR. WEEK 100-B		PRESENT 100-D & F		REQUIRED 48 HR. WEEK 100-D & F		AVAILABLE FOR 100-B COLUMN 4 MINUS 5		ADDIT. MAN POWER REQUIREMENTS 100-B	
	No.Supr.	No. Opr.	No.Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.
Accounting	0	1	0	7	1	16	1	12	0	4	0	2
Electrical	1	4	1	8	5	29	4	21	1	8	0	0
Fire	4	19	4	19	0	8	0	8	0	0	0	0
H. I.	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing forces.											
Instrument	1	4	3	15	6	34	5	24	1	10	1	1
Maintenance	1	9	3	34	12	89	9	63	3	26	0	0
Medical	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing forces.											
"I"	6	11	11	36	24	78	19	58	5	20	0	5
Power	7	39	21	77	47	204	33	143	14	61	0	0
Protection	6	23	6	38	12	99	9	70	3	29	0	0
Service	0	1	0	5	1	10	1	7	0	3	0	1
Technical	0	0	2	0	4	0	4	0	0	0	2	0
Transportation	0	8	1	25	2	56	2	43	0	13	1	4

SHEET 58 of 84

* Requirements are absolute minimum for 48 hr. week.
No extra personnel for sickness, vacation, and other contingencies.

[redacted]

ESTIMATED MAN POWER REQUIREMENTS

100-B AREA

PLAN NO. I

I	II		III		IV		V		VI		VII	
DEPARTMENT	PRESENT IN 100-B		REQUIRED 48 HR. WEEK 100-B		PRESENT 100-D & F		REQUIRED 48 HR. WEEK 100-D & F		AVAILABLE FOR 100-B COLUMN 4 MINUS 5		ADDIT. MAN POWER REQUIRELENTS 100-B	
	No.Supr.	No. Opr.	No.Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.
Accounting	0	1	0	7	1	16	1	12	0	4	0	2
Electrical	1	4	1	8	5	29	4	21	1	8	0	0
Fire	4	19	4	19	0	8	0	8	0	0	0	0
I.	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing force.											
Instrument	1	4	3	15	6	34	5	24	1	10	1	1
Maintenance	1	9	3	34	12	89	9	63	3	26	0	0
Medical	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing force.											
"P"	6	11	11	36	24	78	19	58	5	20	0	5
Power	7	39	21	77	47	204	33	143	14	61	0	0
Protection	6	23	6	38	12	99	9	70	3	29	0	0
Service	0	1	0	5	1	10	1	7	0	3	0	1
Technical	0	0	2	0	4	0	4	0	0	0	2	0
Transportation	0	8	1	25	2	56	2	43	0	13	1	4

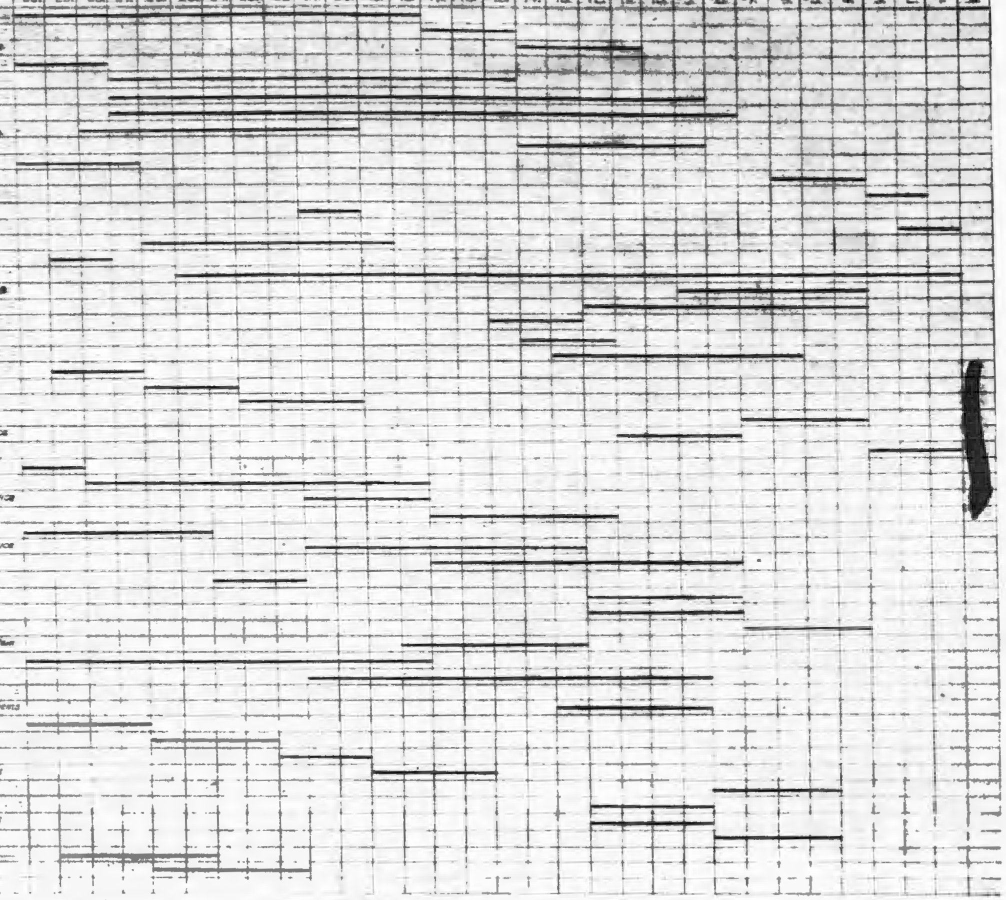
SHEET 40 OF 44.

* Requirements are absolute minimum for 48 hr. week.
No extra personnel for sickness, vacation, and other contingencies.

MASTER SCHEDULE PLAN II — 100-B AREA.

No.	[illegible]	JOBS TO BE DONE.
1	115	Place Purification Room In Operation
2	115	Place Purge Blower #1 & #2 In Operation
3	108	Complete Process Water Connections In Tubes
4	105	Test Horizontal Rods
5	105	Buff Vertical Rods
6		Test Vertical Rod Wells
7		Buff Vertical Rod Guides
8		Replace Chambers & Monitoring Instr. Equip. Etc.
9		Condition Exit Water Monitoring Equipment
10		Condition Cab On Rear Elevator
11		Change Screens As Required & Front Face
12		Purge System With Solids and Flush.
13		Air Test 250# pressure flow thru Unit
14		Change Screens In Valve pit.
15		Trouble Shoot Safety Circuits - Units
16		Change 20 Special Downtimes to Normal
17		Calibrate panel lites
18		Condition Motor Driven Exhaust fans #7 & #8
19		Turbine driven fans 2, 4, 5, 9, 10
20		Elec. Driven Air Compressor #3
21		Condition Gas Sampling Pumps
22		Condition Riser Valve stems front & Rear.
23		Condition Unit heaters In Storage Area.
24		Condition Buffalo Unit Heaters
25		Condition Hydraulic Lifts (3)
26		Condition Scales #1, #2, #3, #4, #5, #6.
27	107	Restore "B" Header & Intermediate Header Service
28	108	Check Lines put Rotameters and pres
29	181	Reconnect steam supply to 181
30		Condition turbine driven pumps #6, #7, #16
31		Check Lines, put Manometers & Gauges In Service
32	182	Emergency Reservoir pumps #2, #3, #4
33		Filter Supply Pumps 4, 5, 6, 7, 8.
34		Check Lines, put Manometers & Gauges In Service
35	183	Condition Flocculators 8, 9, 10, 11, 12, & 13.
36		Condition Mixers #3 & #4
37		Condition Lime Feeders #3 & #4
38		Coag. Feeders #3 & #4
39		Turbine Driven Emergency Pumps
40		Restore Safe Cone Valve, Metering & Control System
41	184	Steam generator #3
42		Steam generator #4
43		phosphate Pumps
44	185	5 Ph. Meters, 5 Flow Contr. & Metering Systems
45		Sodium Silicate pumps #6, #7, #8, #9, #10.
46		Dichromate Pumps #6, #7, #8, #9, #10.
47		Acid pumps 6, 7, 8, 9, 10.
48		[illegible] panels for Chemical Feed Pumps
49	190	Change Oil In 12 Process Pump Motors
50		Set Master Regulators
51		Check calibration of B Control Systems
52	190	[illegible] Electr[illegible] & put In Service
53	194	Air conditioning unit
54	[illegible]	[illegible] unit

Weeks: -30. -29. -28. -27. -26. -25. -24. -23. -22. -21. -20. -19. -18. -17. -16. -15. -14. -13. -12. -11. -10. -9. -8. -7. -6. -5. -4. -3. -2. -1. -0.



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SHEET 11 OF 24.

* Strict Adherence To Schedule Necessary For Completion In Specified Time

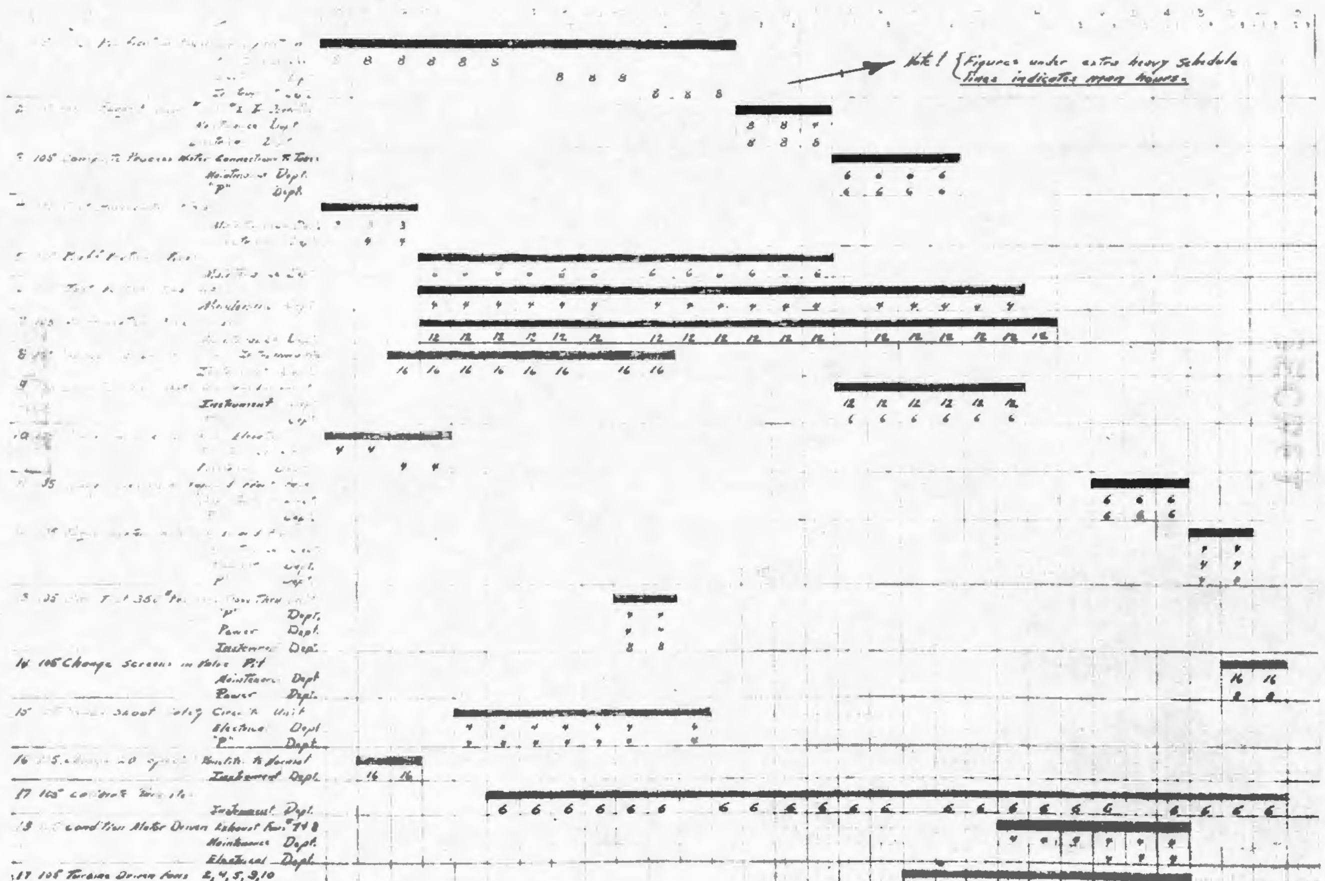
MASTER SCHEDULE PLAN II — 100-A AREA

Nº	Bldg.	JOBS TO BE DONE.
1	115	Place Purification Room In Operation
2	115	Place Purge Blower #1 & #2 In Operation
3	105	Complete Process Water Connections In Tubes
4	105	Test Horizontal Rods
5	105	Buff Vertical Rods
6		Test Vertical Rod Wells
7		Buff Vertical Rod Guides
8		Replace Chambers & Monitoring Instr. Assy. Etc.
9		Condition Exit Water Monitoring Equipment
10		Condition Cab On Rear Elevator
11		Change Screens As Required # Front Face
12		Purge System With Solids and Flush.
13		8 Hr. Test 250# pressure flow Thru Unit
14		Change Screens In Valve pt.
15		Trouble Shoot Safety Circuits - Units
16		Change 20 Special Panelites to Normal
17		Calibrate panel-lites.
18		Condition Motor Driven Exhaust fans #7 & #8
19		Turbine driven fans 2, 4, 5, 9, 10.
20		Elec. Driven Air Compressor #3.
21		Condition Gas Sampling Pumps
22		Condition Riser Valve stems Front & Rear.
23		Condition Unit heaters In Storage Area
24		Condition Buffalo Unit Heaters
25		Condition Hydraulic lifts (3)
26		Condition Scales #1, #2, #3, #4, #5, #6.
27	107	Restore "B" Monitor & Intermediate Monitor Service
28	108	Check Lines, put Rotameters and pres
29	181	Reconnect steam supply to 181.
30		Condition turbine driven pumps #6, #7, #16.
31		Check Lines, put Manometers & Gauges In Service
32	182	Emergency Reservoir pumps #2, #3, #4.
33		Filter Supply Pumps 4, 5, 6, 7, 8.
34		Check Lines, put Manometers & Gauges In Service
35	183	Condition Flocculators 8, 9, 10, 11, 12, & 13.
36		Condition Mixers #3 & #4.
37		Condition Lime Feeders #3 & #4.
38		Coag. Feeders #3 & #4
39		Turbine Driven Emergency Pumps
40		Restore North Cone Valve, Metering & Control System.
41	184	Steam Generator #3
42		Steam Generator #4
43		Phosphate Pumps
44	185	5 Ph. Meters, 5 Flow Contr. & Metering Systems
45		Sodium Silicate pumps #6, #7, #8, #9, #10.
46		Dichromate Pumps #6, #7, #8, #9, #10.
47		Acid pumps 6, 7, 8, 9, 10.
48		Condition Contr. Panels for Chemical Feed Pumps
49	190	Change Oil In 12 Process Pump Motors
50		Set Master Regulators
51		Check Calibration of 8 Control Systems
52	1701	Install Electrometers & Put In Service
53	1704	Air Conditioning Unit
54	105	[illegible]

Schedule columns (days): -30. -29. -28. -27. -26. -25. -24. -23. -22. -21. -20. -19. -18. -17. -16. -15. -14. -13. -12. -11. -10. -9. -8. -7. -6. -5. -4. -3. -2. -1. 0

● Strict Adherence To Schedule Necessary For Completion In Specified Time

SHEET 11 OF 24.



SHEET 12 of 24.

Sheet 1

110-B

Note! {Figures under extra heavy schedule lines indicates man hours.

Item	30	29	28	-27	26	25	24	23	-22	-21	20	-19	18	-17	-16	-15	-14	13	12	-11	10	-9	-8	7	-6	-5	-4	-3	-2	-1	-0
1 105 Fire Purification Room in Operation																															
Maintenance Dept.	8	8	8	8	8	8																									
Electrical Dept.								8	8	8																					
Instrument Dept.											8	8	8																		
2 105 Purge Blower #1 & #2 In Operation																															
Maintenance Dept														8	8	4															
Electrical Dept.														8	8	8															
3 105 Complete Process Water Connections To Tubes																															
Maintenance Dept.																	6	6	6	6											
"P" Dept.																	6	6	6	6											
4 105 Test Horizontal Rods																															
Maintenance Dept.	3	3	3																												
Electrical Dept.		4	4																												
5 105 Buff Vertical Rods																															
Maintenance Dept.				6	6	6	6	6	6		6	6	6	6	6	6															
6 105 Test Vertical Rod Wells																															
Maintenance Dept.				4	4	4	4	4	4		4	4	4	4	4	4		4	4	4	4	4									
[redacted] 5 Buff Vertical Rod Guides																															
Maintenance Dept.				12	12	12	12	12	12		12	12	12	12	12	12		12	12	12	12	12	12								
[redacted] Replace Instruments & Instrument Ckts																															
Instrument Dept.			16	16	16	16	16	16		16	16																				
9 [redacted] Water Monitoring Equipment																															
Instrument Dept.																	12	12	12	12	12	12									
"P" Dept.																	6	6	6	6	6	6									
10 [redacted] 5 Condition Rear Elevator																															
Maintenance Dept.	4	4																													
Electrical Dept.			4	4																											
11 [redacted] 5 Change Screens As Required Front Face																															
Maintenance Dept.																									6	6	6				
"P" Dept.																									6	6	6				
12 105 Purge System with Solids and Flush																															
Maintenance Dept.																												4	4		
Power Dept.																												4	4		
"P" Dept.																												4	4		
13 105 8Hr. Test 350# Pressure Flow Thru Unit																															
"P" Dept.										4	4																				
Power Dept.										4	4																				
Instrument Dept.										8	8																				
14 105 Change Screens in Valve Pit																															
Maintenance Dept.																													16	16	
Power Dept.																													8	8	
15 105 Trouble Shoot Safety Circuit - Unit																															
Electrical Dept.					4	4	4	4	4	4		4																			
"P" Dept.					4	4	4	4	4	4		4																			
16 105 Change 20 Special Panelits to Normal																															
Instrument Dept.		16	16																												
17 105 Calibrate Panelits																															
Instrument Dept.						6	6	6	6	6	6		6	6	6	6	6	6		6	6	6	6	6	6		6	6	6	6	
18 105 Condition Motor Driven Exhaust Fans #7 & 8																															
Maintenance Dept.																						4	4	4	4	4	4				
Electrical Dept.																									4	4	4				
17 105 Turbine Driven Fans 2, 4, 5, 9, 10																															
Maintenance Dept.																			32	32	32	32	32	32	40	40	40				

SHEET 12 of 24.

DETAIL SCHEDULE PLANT III 100B AREA

Sheet #2

No. BLDG. JOBS TO BE DONE.

20 105 Electric Driven Air Compressor #3
Maintenance Dept.
Electrical Dept.

21 105 Condition Gas Sampling Pumps
Maintenance Dept.
Electrical Dept.

22 105 Condition Riser valve stems Front & Rear
Maintenance Dept.
"P" Dept.

23 105 Condition Unit Heaters In Storage Area
Maintenance Dept.
Electrical Dept.

24 105 Condition Buffalo Unit Heaters
Maintenance Dept.
Electrical Dept.

25 105 Condition Hydraulic Lifts (3)
Maintenance Dept.

26 105 Condition Scales #1, #2, #3, #4, #5, #6
Maintenance Dept.
Electrical Dept.

27 107 Restore "B" Monitor & [illegible] Monitor Service
Instrument Dept.

28 108 Check Lines, Rotameters and Gauges in Service
Instrument Dept.

29 181 Reconnect steam Supply to 181 Bldg.
Maintenance Dept.

30 181 Condition Turbine Driven Pumps #1 [illegible] #16
Maintenance Dept.

31 181 Check Lines, Put Manometers & Gauges in Service
Instrument Dept.

32 182 Emergency Reservoir Pumps #2, #3, #4
Maintenance Dept.
Electrical Dept.

33 182 Filter Supply Pumps #[illegible]
Maintenance Dept.
Electrical Dept.

34 182 Check Lines, Put Manometers & Gauges in Service
Instrument Dept.

35 183 Condition [illegible] 8, 9, 10, 11, 12, & 13
Maintenance Dept.
Electrical Dept.

36 183 Condition Mixers #3 & #4
Maintenance Dept.
Electrical Dept.

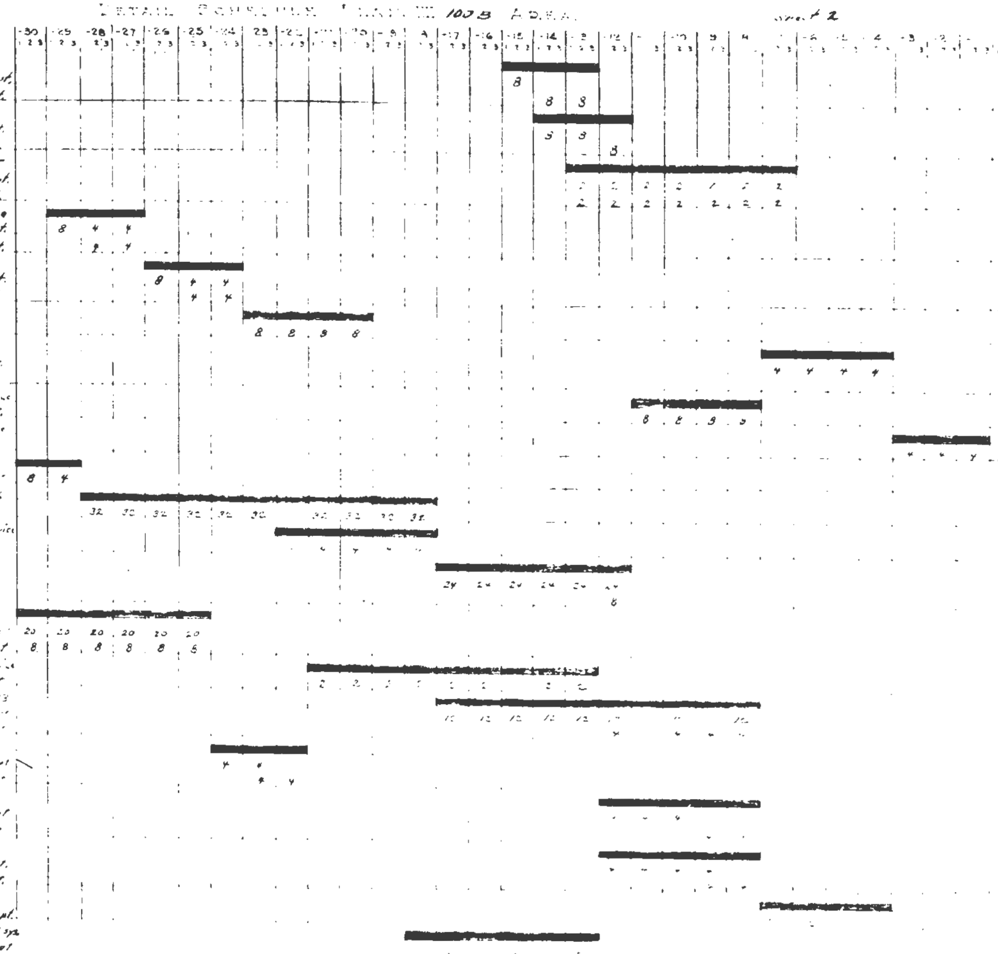
37 183 Condition [illegible] #3 & #4
Maintenance Dept.
Electrical Dept.

38 183 Condition Coag Feeders #3 & #4
Maintenance Dept.
Electrical Dept.

39 183 Turbine Driven Emergency Pumps
Maintenance Dept.

40 183 Restore North Cone valve, Hickory & Control sys.
Instrument Dept.

SHEET 13 OF 14

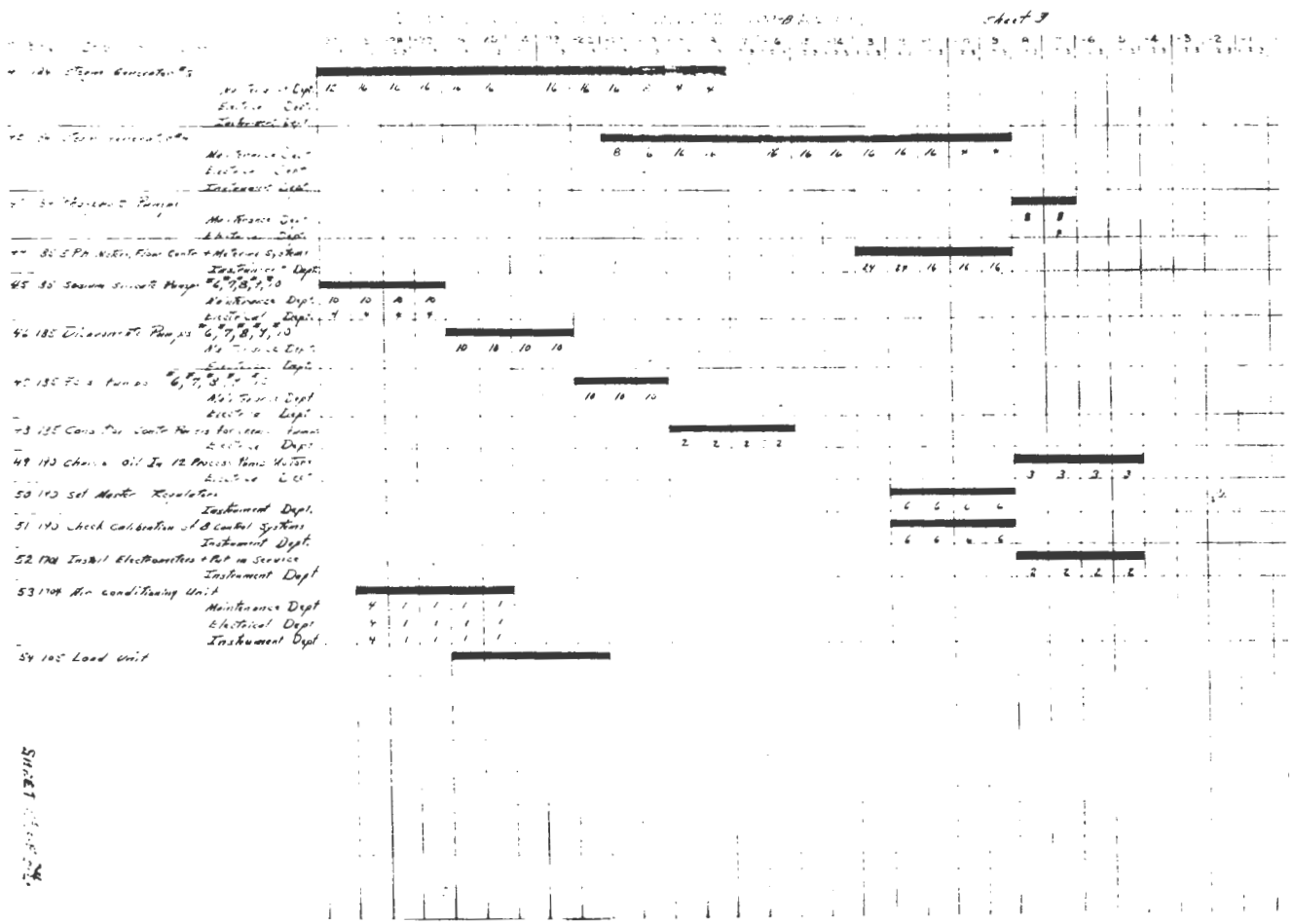


DETAIL SCHEDULE PLAN II 100B AREA.

sheet 2

No. Bldg. JOBS TO BE DONE	-30	-29	-28	-27	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1
20 105 Electric Driven Air Compressor #3																														
Maintenance Dept.																8														
Electrical Dept.																	8	8												
21 105 Condition Gas Sampling Pumps																														
Maintenance Dept.																	8	8												
Electrical Dept.																			8											
22 105 Condition Riser Valve stems Front & Rear.																														
Maintenance Dept.																		2	2	2	2	2	2	2						
"P" Dept.																		2	2	2	2	2	2	2						
23 105 Condition Unit Heaters In Storage Area																														
Maintenance Dept.		8	4	4																										
Electrical Dept.			4	4																										
24 105 Condition Buffalo Unit Heaters																														
Maintenance Dept.					8	4	4																							
Electrical Dept.						4	4																							
25 105 Condition Hydraulic Lifts (3)																														
Maintenance Dept.								8	8	8	8																			
26 105 Condition Scales #1, #2, #3, #4, #5, #6																														
Maintenance Dept.																								4	4	4	4			
Electrical Dept.																														
27 107 Restore "B" Monitor + Intermediate Monitor Service																														
Instrument Dept.																				8	8	8	8							
28 108 Check Lines, Put Rotameters and Gauges in Service																														
Instrument Dept.																												4	4	4
29 181 Reconnect steam Supply to 181 Bldg.																														
Maintenance Dept.	8	4																												
30 181 Condition Turbine Driven Pumps #6, #7 + #16																														
Maintenance Dept.			32	32	32	32	32	32		32	32	32	32																	
31 181 Check Lines, Put Manometers + Gauges in Service																														
Instrument Dept.									4	4	4	4	4																	
32 182 Emergency Reservoir Pumps #2 #3 #4																														
Maintenance Dept.														24	24	24	24	24	24											
Electrical Dept.																			8											
33 182 Filter Supply Pumps #4, 5, 6, 7 + 8																														
Maintenance Dept.	20	20	20	20	20	20																								
Electrical Dept.	8	8	8	8	8	8																								
34 182 Check Lines, Put Manometers + Gauges in Service																														
Instrument Dept.										2	2	2	2	2	2		2	2												
35 183 Condition Flocculators 8, 9, 10, 11, 12, + 13																														
Maintenance Dept.														12	12	12	12	12	12		12	12	12							
Electrical Dept.																			4		4	4	4							
36 183 Condition Mixers #3 + #4																														
Maintenance Dept.							4	4																						
Electrical Dept.								4	4																					
37 183 Condition Lime Feeders #3 + #4																														
Maintenance Dept.																			4	6	4									
Electrical Dept.																						4	4							
38 183 Condition Coag Feeders #3 + #4																														
Maintenance Dept.																			4	4	4	4								
Electrical Dept.																						4	4							
39 183 Turbine Driven Emergency Pumps																														
Maintenance Dept.																								32	32	32	32			
40 183 Restore North Cone Valve, Metering + Control sys.																														
Instrument Dept.													6	6	6	6	6	6												

SHEET 13 OF 24.


Sheet 3
Sheet 4

DETAIL SCHEDULE PLAN II. 100-B AREA. Sheet 3

No	Bldg	Jobs To Be Done	-30	-29	-28	-27	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1
41	184	Steam Generator #3																														
		Maintenance Dept.	12	16	16	16	16	16		16	16	16	8	4	4																	
		Electrical Dept.																														
		Instrument Dept.																														
42	184	Steam Generator #4																														
		Maintenance Dept.										8	16	16	16		16	16	16	16	16	16	4	4								
		Electrical Dept.																														
		Instrument Dept.																														
43	184	Phosphate Pumps																														
		Maintenance Dept.																							8	8						
		Electrical Dept.																								4						
44	185	SPM Meters, Flow Contr. + Metering Systems																														
		Instrument Dept.																		24	28	16	16	16								
45	185	Sodium silicate Pumps #6, #7, #8, #9, #10																														
		Maintenance Dept.	10	10	8	8																										
		Electrical Dept.	4	4	4	4																										
46	185	Dichromate Pumps #6, #7, #8, #9, #10																														
		Maintenance Dept.					10	10	10	10																						
		Electrical Dept.																														
47	185	Acid Pumps #6, #7, #8, #9, #10																														
		Maintenance Dept.									10	10	10																			
		Electrical Dept.																														
48	185	Condition Contr. Panels for chemical Pumps																														
		Electrical Dept.												2	2	2	2															
49	190	Change Oil In 12 Process Pump Motors																														
		Electrical Dept.																								3	3	3	3			
50	190	Set Master Regulators																														
		Instrument Dept.																			6	6	6	6								
51	190	Check Calibration of B Control Systems																														
		Instrument Dept.																			6	6	6	6								
52	190	Install Electrometers + Put in Service																														
		Instrument Dept.																								2	2	2	2			
53	1704	Air conditioning Unit																														
		Maintenance Dept.		4	1	1	1	1																								
		Electrical Dept.		4	1	1	1	1																								
		Instrument Dept.		4	1	1	1	1																								
54	105	Load Unit																														

SHEET 1 OF 2

7-5191

PLAN II

ACCOUNTING:

Since no special training is required for the accounting personnel stationed in the areas, it is assumed that there would be no need for going to a 48 hour week in the Accounting Department. The deficiency in personnel could be hired and sufficiently trained to handle their jobs in a 30 day period.

ELECTRICAL:

No additional help would be required for starting up 100-B in a 30 day period, and a 48 hour work week would not be required. During this period an assignment engineer from another area would be used for supervision.

FIRE:

A 48 hour week would not be required for start-up since the area is fully manned at the present time. No additional personnel required.

H.I.:

A 48 hour work week would not be required. Shift coverage can be obtained by having the shift men who now divide their time equally between D and F Areas to spend equal time in all areas. Sufficient day supervision will be available.

INSTRUMENT:

Due to the specialized training required in this group, it would be necessary for this department to work a 48 hour week. Sufficient manpower can be made available for coverage.

MAINTENANCE:

A 48 hour work week would not be required. By neglecting some preventative maintenance work during the 30 day period sufficient manpower can be made available for coverage.

MEDICAL:

A 48 hour week would not be required. The Medical Department personnel works in all areas. By reducing the time spent in each of the areas, sufficient coverage can be obtained.

"P":

Due to the specialized training required for operators in the "P" Department, it will not be possible to meet the manpower requirements by hiring. Since the work to be done can be spread over a period of 30 days no additional manpower will be required until 10 days before start-up. The additional manpower requirements will be met by going

1-5 71 cable
ref. to 2.1
dated 10-16-1

to a 48 hour week.

POWER:

Due to the specialized training required for operators in the Power Department, it will not be possible to meet the manpower requirements by hiring. Since the work to be done can be spread over a period of 30 days no additional manpower will be required until 10 days before start-up. The additional manpower requirements will be met by going to a 48 hour week.

PROTECTION:

A 48 hour week would not be required since no specialized training is necessary. During the 30 day period the deficiency in personnel could be obtained from newly hired personnel.

SERVICE:

A 48 hour week would not be required since no specialized training is necessary. The deficiency in personnel could be obtained from newly hired personnel.

TECHNICAL:

A 48 hour week would not be required since sufficiently trained personnel can be made available from the Technical Department for the start-up period.

TRANSPORTATION:

A 48 hour week would not be required. By upgrading within the Transportation Department sufficient personnel can be made available at the expense of reducing the labor force in the Village.

[redacted]

ESTIMATED MAN POWER REQUIREMENTS

100-B AREA

PLAN NO. II

I	II		III		IV		V		VI		VII	
DEPARTMENT	PRESENT IN 100-B		REQUIRED 48 HR. WEEK 100-B		PRESENT 100-D & F		REQUIRED 48 HR. WEEK 100-D & F		AVAILABLE FOR 100-B COLUMN 4 MINUS 5		ADDIT. MAN POWER REQUIREMENTS 100-B	
	No. Supr.	No. Opr.	No. Supr.	No. Opr.	No. Supr.	No. Opr.	No. Supr.	No. Opr.	No. Supr.	No. Opr.	No. Supr.	No. Opr.
• Accounting	0	1	0	7	1	16					0	6
• Electrical	1	4	2	4	5	29					1	0
• Fire	4	19	4	19	0	8					0	0
• H. I.	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing force.											
• Instrument	1	4	3	15	6	34	5	24	1	10	1	1
• Maintenance	1	9	2	19	12	89					0	0
• Medical	Personnel requirements not rigid due to multi-area work. Temporary requirements can be met by less area coverage with existing force.											
• "P"	6	11	11	36	24	78	19	58	5	20	0	5
• Power	7	39	21	77	47	204	33	143	14	61	—	—
• Protection	6	23	6	49	12	99	12	99				26
• Service	0	1	0	5	1	10	1	10	—	—	0	4
• Technical	0	0	2	0	4	0	4	0	—	—	2	0
• Transportation	0	8	1	28	2	56	2	58	—	—	1	20

* Figures based on 40 hr. week
• Figures based on 48 hr. week

Sheet 17 of 24.

7-5191 c.1, [illegible]

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ESTIMATED ADDITIONAL MATERIAL AND LABOR COSTS

100-B AREA

PLAN NO. II

DEPARTMENT	MATERIAL COST	LABOR COSTS	TOTAL	REMARKS
Accounting		1720.00	1720.00	
Electrical	105.00	400.00	505.00	
Fire	--	--	--	
H. I.	--	675.00	675.00	
Instrument	200.00	5000.00	5200.00	
Maintenance	200.00	3960.00	4160.00	
Medical	--	--	--	
"P"	--	4500.00	4500.00	
Power	12,960.00	9,800.00	22,760.00	
Protection	--	3584.00	3584.00	
Service	--	438.00	438.00	
Technical	--	525.00	525.00	
Transportation	1,200.00	4,891.00	6,091.00	
TOTAL	14,665.00	35,493.00	50,158.00	

[redacted]

SHEET 18 of 24

[redacted]

PLAN III

ACCOUNTING:

The Accounting Department will need 6 clerks for continued 40 hour operation. Requirements can be met by hiring personnel from the present applicants.

ELECTRICAL:

For continued 40 hour operation it will be necessary to hire 9 electrician's from applicants on hand. Supervisory requirements will be met by upgrading.

FIRE:

No additional help required for 40 hour operation.

H.I.:

Continued 40 hour operation will require 6 additional men. These requirements will be met by upgrading and from new hires.

MAINTENANCE:

Requirements for continued 40 hour operation can be met by upgrading one man to supervision and hiring four mechanics.

MEDICAL:

For continued 40 hour operation, one nurse and one receptionist will be needed.

"P":

For operation on a 40 hour week, 6 supervisor's and 25 operators will be needed. The supervisory requirements will be met by upgrading, transfers, and new hires. The immediate operator requirements can be met from the 300 Area. It will be necessary for the 300 Area to hire new men.

POWER:

On a 40 hour week, 17 supervisors and 52 operators will be needed. The supervisory requirements will be met by upgrading, and hiring of supervisory personnel with the desired qualifications. Operator requirements will be met by new hires.

PROTECTION:

For continued 40 hour operation it will be necessary to hire 26 patrolmen.

[redacted]

SERVICE:

For continued 40 hour operation, it will be necessary to hire four janitors.

TECHNICAL:

For continued 40 hour operation it will be necessary to hire 1 physicist and 1 assistant.

TRANSPORTATION:

For continued operation it will be necessary to obtain 1 supervisor and 20 operators. The supervisor will be obtained by upgrading. The area operator requirements will be met by upgrading in the entire transportation department. It will finally be necessary to hire 20 laborers for Village work.

ESTIMATED MAN POWER REQUIREMENTS

100-B AREA

PLAN NO. III

I	II		III		IV		V		VI		VII	
DEPARTMENT	PRESENT IN 100-B		REQUIRED 48 HR. WEEK 100-B		PRESENT 100-D & F		REQUIRED 48 HR. WEEK 100-D & F		AVAILABLE FOR 100-B COLUMN 4 MINUS 5		ADDIT. MAN POWER REQUIREMENTS 100-B	
	No.Supr.	No. Opr.	No.Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.	No.Supr.	No.Opr.	No. Supr.	No.Opr.
Accounting	0	1	0	7							0	6
Electrical	1	4	2	12							1	8
Fire	4	19	4	19							0	0
H. I.	1	0	6	1							5	1
Instrument	1	4	3	16							2	12
Maintenance	1	9	2	12							1	3
Medical	0	1	0	3							0	2
"P"	6	11	12	36							6	25
Power	7	39	27	91							17	52
Protection	6	23	6	49							0	26
Service	0	1	0	5							0	4
Technical	0	0	2	0							2	0
Transportation	0	8	1	28							1	20

SHEET 21 OF 24.

2-5191 revised

GENERAL ELECTRIC

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[redacted]

October 16, 1946

START-UP STUDY — 100 B AREA
METAL REQUIREMENTS

Tables I and II of this Study indicate metal requirements and 300 Area production rates incident to starting the 100 B Area.

The following assumptions have been made in preparing the tables:

1. The present stock of unbonded slugs (70 units) will be processed to bonded slugs during the period of October 15, 1946 to March 15, 1947 at a rate of approximately 20 units per month.

2. A normal metal inventory of approximately 400 units will be maintained, this being divided into 200 units of billets and rods and 200 units of slugs.

3. Starting the 100 B Area on:

   a. November 15, 1946
   b. March 15, 1947

4. Present forecast of metal receipts will be maintained.

It should be noted that in starting the B Area on November 15, 1946 it will be necessary to increase the metal receipts as of the November shipment. Slug production will be increased in January 1947. If the Area is started on March 15, 1947, the metal receipts will have to be increased with the June shipment and slug production will be increased in May 1947.

[redacted]

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TABLE I

Date	Billet Receipts During Past 30 Days	300 Area "Billet" Inventory	Total "Slug" Inventory: Regulars	Total "Slug" Inventory: Unbonded	Total Metal on Plant	300 Area Production During Past 30 Days	Slugs Used in 100 Areas During Past 30 Days
10-15-46	56	92	256	70	418	60	60
11-15-46	75*	102	256	55	413	60	60
12-15-46	100	137	222	40	399	60	94
1-15-47	100	172	205	25	402	60	77
2-15-47	120	185	209	10	404	90	86
3-15-47	120	191	213	0	404	90	86
4-15-47	130	192	213	0	405	90	90
5-15-47	130	193	197	0	390	90	106
6-15-47	130	194	194	0	388	90	93
7-15-47	130	195	197	0	392	90	87
8-15-47	130	200	197	0	397	87	87
9-15-47	125	200	197	0	397	87	87

* This billet shipment is already scheduled. Subsequent shipments would have to be scheduled as indicated above.

SHEET 22 of 24.

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TABLE II

Date	Billet Receipts During Past 30 Days	300 Area "Billet" Inventory	Total "Slug" Inventory		Total Metal on Plant	300 Area Production During Past 30 Days	Slugs Used in 100 Areas During Past 30 Days
			Regulars	Unbonded			
10-15-46	56	92	256	70	418	60	60
11-15-46	75*	102	256	55	413	60	60
12-15-46	85*	122	256	40	418	60	60
1-15-47	110*	167	256	25	448	60	60
2-15-47	110*	212	256	10	478	60	60
3-15-47	110*	251	256	0	507	60	60
4-15-47	90*	255	222	0	477	60	94
5-15-47	90*	259	205	0	464	60	77
6-15-47	90*	220	209	0	429	90	86
7-15-47	120	221	213	0	434	90	86
8-15-47	120	212	213	0	425	90	90
9-15-47	125	208	197	0	405	90	106

* These billet shipments are already scheduled. Subsequent shipments would have to be scheduled as indicated above.

[redacted]

MANHATTAN DISTRICT HISTORY

BOOK IV - X10 PROJECT

VOLUME 6 - OPERATION

APPENDIX E

GLOSSARY

Diatomaceous Earth - A finely-divided, porous, light-weight material which is used in the process water to the Piles to prevent film formation in the cooling tubes.

Milli-roentgen - A milli-roentgen is one-thousandth of the unit of gamma dosage; the unit (roentgen) is defined as that quantity of gamma radiation which will produce one electrostatic unit of ions in one cubic centimeter of atmospheric air.

Zeo-Karb H - Zeo-Karb H is the trade name given to the cation exchanger used in the Permutit Company Demineralization Units.

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