POWER PLANT SURVEY

PLAINTIFF'S EXHIBIT
GE-102

Technical highlights of central-station and industrial-plant construction to meet postwar loads; tabulations of engineering features of steam, internal-combustion and hydro plants installed in war years and planned for current construction

AFTER FIVE YEARS' INTERRUPTION by wartime censorship, POWER here resumes publication of engineering data on new steam, internal-combustion and hydro power plants. The following pages tabulate technical highlights of typical plants installed in the war years and planned for current construction. Behind these cold and formal figures is the record of a stirring achievement—the provision of power for a war-production effort such as the world has never known and for peaceful production that holds the hope of the future.

A brief review of the war period serves as an object lesson in skillful planning by government and by an industry long used to foresighted preparation. In 1939, our national power plant had a total capacity just under 50 million kw—38.8 million in utility plants and 10.6 million in industrials. It generated, that year, 161.3 billion kwhr. of which utilities accounted for 79.1% and industry 20.9%. Industry used 79 billion kwhr, purchasing 61.7% and generating 38.3%.

At the end of 1944, national power capacity had grown to 61 million kw, 49.2 million in central stations and 12.9 in industry. This war-expanded power plant generated 279.5 billion kwhr in 1944, 81.6% coming from utilities and 18.4% from industry's plants. Industrial use grew to 158.8 billion kwhr in 1944, with 70.3% purchased from central stations and 29.7% privately generated. And in 1945, total industrial use reached close to 162 billion kwhr, more than total national generation in 1939 and more than twice entire industrial use in that prewar year.

This tremendous increase in "fighting" kilowatthours, more than 100%, came from a national power plant that grew only 25%, a result of careful planning that made maximum use of existing facilities and thus made available to the Navy and merchant marine the lion's share of the production of new boilers, turbines and auxiliary power equipment.

In this coordinated program, central stations absorbed the major share of increased power demand. Thus, while *relative* generating capacity of utility and industrial plants remained virtually unchanged from 1939 through 1944, the proportion of energy purchased by industry increased considerably in relation to the amount privately generated.

Added load on central stations resulting from this program would have required a capacity increase of about 34 million kw had kilowatthours output per kilowatt of capacity remained the same as in 1939. That the job was done with an actual increase of only 10 million kw can be credited to (1) high-load-factor "around-the-clock" industrial operation that accounted for about 12.5 million kw of capacity "saved" (2) slashing margins of reserve capacity from 14 to 9 million kw for a saving of 5 million (3) cutting line losses from 18 to 8% for a further saving of close to 4 million kw (4) reduction of about 1.5 million kw in peak loads by operation of wartime and (5) a saving of 1.25 million kw through "pooling."

Facilities for manufacturing power equipment operated at a record rate of about 12 million kw per year for the four war years. Of the approximately 50 million kw of equipment built, only 10 million went to central stations and 2 million to industry, leaving 30 million for the Navy and more than 7.5 million for the merchant marine—the fruit of realistic planning and wholehearted cooperation by power engineers.

We thus enter the postwar period with a national power plant adequate to immediate demands but carrying no excess fat. As reconversion reverses many of the wartime trends, the power industry faces a necessary building program equal to or greater than any of prewar years. This added capacity will be needed to meet expected increased peak loads, to restore margins of reserve to more conservative figures, and to increase over-all efficiency by permitting retirement of obsolete equipment. As the art of power-plant design follows its evolutionary pattern we can expect the plants of the immediate future to display many of the trends discernible in the plant-by-plant survey appearing on the following pages.

Compiled by [illegible]

Company	Location	Consulting Engineers	Date of Operation	Nominal Pressure (psi)	Nominal Steam Temperature	Number	Capacity	Manufacturer	Waterwall Surface	Heating Surface	Furnace Volume	Air-Heater Surface
201 TO 399 PSI												
N. Y., N. H. & Hartford RR	**Cos Cob, Conn**	Gibbs & Hill	1-44	375	600	1	180	RS	3.8	12.2	8.2	28.7
American Enka Corp	Enka, N. C		11-44	350	725	1	105	BW	....	9.1	6.9	21.6
Colo. Fuel & Iron Corp	**Pueblo, Colo**	**United Engrs**	4-44	330	750	1	150	RS	4.5	14.9	13.0	16.8
Emery Industries Inc	**Cincinnati, Ohio**	A M Kinney	...	300	Sat	1	52	BW	6.5	5.5	3.3	....
Republic Steel Corp	Chicago, Ill	United Engrs	...	300	650	3	100	BW	7.8	5.7	5.3	25.7
St. Regis Paper Co.	Trenton, N. J	Gruenwald & Niemitz	9-46	300	Sat	1	100	Vo	0.9	11.6		
Savannah Sugar Ref Corp	Port Wentworth, Ga		6-45	300	600	1	60	RS	2.0	5.8	2.9	24.8
Owens-Corning Fibreglas	**Newark, Ohio**		3-46	270	600	1	40	RS	1.8	3.5	3.0	....
Amalgamated Sugar Co.	Nampa, Idaho	A J Forbes	1942	250	385	2	85	BW	....	13.1		
American Molasses Co	Brooklyn, N. Y.	J G White	12-45	250	585	1	80	BW	....	9.7	..	22.8
Atlantic Seaboard Cork	Boldman, Ky		3-46	250	500	1	90	BW				
Atlas Powder	Newcastle, Del		8-46	250	Sat	2	30	EM	0.4	4.6	...	30.0
Cudahy Bros Co	Cudahy, Wis	B Bugbe	...	250	550	2	25	WI	....	....	....	....
				250	550	1	35	EM	....	....	....	....
				250	550	1	50	EM	....	....	....	....
Diamond Wire & Cable Co	Chicago Hts., Ill.		2-45	250	Sat	1	5	BW	....	1.3	0.3	21.0
Gleason Works	Rochester, N. Y	Beman & Candee	10-43	250	500	3	25	BW				
Glenlyon Print Works	**Phillipsdale, R. I**	**Westcott & Mapes**	11-46	250	550	1	60	RS	3.1	5.8	4.3	17.6
Goodyear Tire & Rubber Co.	Gadsden, Ala		1-46	250	Sat	2	60	BW	1.2	5.9	....	....
Lake Placid Club Co	**Lake Placid, N. Y**	**Riley Corp**	2-46	250	556	1	30	RS	0.7	2.4	1.05	....
Mathieson Alkali Works	Lake Charles, La		7-44	250	610	1	260	BW	....	25.0	....	....
Pittsburgh Coke & Chem Co	Neville Island, Pa			250	500	2	75	CE	...	10.4	....	....
Servel, Inc	Evansville, Ind.		2-43	250	Sat	1	50	BW	0.5	6.8	..	...
Winslow Bros & Smith	Norwood, Mass		12-42	250	..	1	50	CE	....	5.7		
Worcester Cold Storage	Worcester, Mass		5-46	250		2	23	CE	0	3.6	1.12	
Raybestos-Manhattan	Manheim, Pa		1-46	240	400	1	46	EM	0.3	6.7	1.7	
General Electric Co.	**Syracuse, N. Y.**		10-42	235	436	3	60	RS	1.8	6.6		
Boston Cons Gas Co	Everett, Mass.		12-43	230	500	2	62.5	BW	1.25	6.7	3.2	28.0
Atlas Powder Co	Stamford, Conn		9-46	225	500	1	60	CE	1.3	7.4	....	....
Bath Iron Works Corp	Bath, Me		2-45	225		2	30	BW			....	....
Cons Citrus Products	Tampa, Fla.	N C Ebaugh	4-46	225	390	1	28	BW	0.7	3.0		
Cons Vultee Aircraft	**Ft. Worth, Texas**	**Austin Co.**	2-42	225		4	100	RS	2.1		3.8	38.8
Kohler Co	Kohler, Wis		3-46	225	397	1	100	WI	1.1	9.7	2.9	24.3
Lake Shore Tire & Rubber Co	Des Moines, Ia.	E Patera		225	396	2	15	BW	....	4.3	1.1	....
Ware Shoals Mfg Co	Ware Shoals, S. C	J E Sirrine	12-42	225	520	1	80	BW		8.9		
Foster Wheeler Corp.	Dansville, N. Y		12-43	220	441	2	50	FW	1.5	3.6	2.2	23.0
Standard Oil Co of N. J	**Baton Rouge, La**	**E B Badger**	4-43	220	520	5	150	RS	2.7	14.9	7.4	29.2
West Va. Coal & Coke	Chauncey, W. Va		4-45	210	...	1	75	EC	1.07	11.2	4.6	...
TESTING BOILERS*												
Kieley & Mueller, Inc	North Bergen, N. J		1943	2000	900	1	1.5	BS	....	0.086[1]	0.004	730
Joshua Hendy Iron Wks	Sunnyvale, Calif		1943	1500	900	1	15	BS	....	0.567[1]	0.018	1260
Westinghouse Electric Corp	Emeryville, Calif		1943	2000	900	1	1.5	BS	....	0.086[1]	0.004	730
CANADA												
500 PSI AND ABOVE												
Marathon Paper Mills Co	**Marathon, Ont**	**Stone & Webster**	6-46	675	715	2	125	CE	....	....	....	....
			6-46	675	715	2	65	BW			....	
Bathurst Pwr & Paper Co	Bathurst, N. B		1945	640	730	1	175	BWG	5.3	19.5	....	15.7
Alliance Paper Mills	Merritton, Ont		6-46	620	760	1	75	CE	1.6	6.98		27.1
Fraser Co. Ltd	Edmundston, N. B	H G Acres	8-46	600	700	2	100	CE	1.77	9.0	...	23.6
Gaspesia Sulphite, Ltd	**Chandler, Que.**		1945	600	710	2	65	CE	1.76	7.0		22.3
Dominion Steel & Coal Corp	Sydney, N. S.		1941	500	750	1	185	BWG	2.6	14.6	10.4	21.5
400 TO 499 PSI												
Atlantic Sugar Ref Ltd	St. John, N. B	H G Acres	7-46	450	600	2	60	BWG	1.6	6.8	2.7	28.7
Dominion Oilcloth & Linoleum Co	Montreal, Que		1944	450		1	60	BWG	....	6.4[1]	2.6	13.3
Imperial Oil Ltd	Montreal East, Que		2-46	450	650	1	50	BWG		5.2	1.9	29.3
Shell Oil Co of Canada	Montreal East, Que		12-43	450	601	1	75	FW	2.2	6.3	4.2	...
Polymer Corp, Ltd	**Sarnia, Ont.**	**H G Acres**	....	430	650	5	308	BWG	8.9	19.2	25.7	14.5
201 TO 399 PSI												
Barrett Co, Ltd	Joliette, Que	Atwoods, Ltd	1946	250	Sat	1	40	DBR	...	5.4	....	...
B F Goodrich Rubber Co	Kitchener, Ont		4-46	250	378	1	36	FW	1.3	3.7	1.9	21.4
Canadian Industries, Ltd	Kingston, Ont		.....	250	406	3	17	VK	0.5	2.7	0.5	
Granby Cons. M S & Pwr	Princeton, B. C	A R Yuill		250	600	2	80	CE	2.0	8.2		24.3
James MacLaren, Ltd	Masson, Que	H S Ferguson	1941	250	Sat	2	90	CE	2.6	9.6	11.6	15.7
Maritime Industries, Ltd	Nappan, N. S	H G Acres	1946	250	556	2	15	DBR		2.5		
Moirs, Ltd	Halifax, N. S	Montreal Engr	1945	250	Sat	1	12	FW	0.4	1.2	0.46	35.5
Northern Elec Co. Ltd	Montreal, Que		9-45	250	406	1	3.5	BWG		1.0	0.32	
Quebec Sugar Ref Co	St Hilaire, Que	F Burnam		250	406	3	40	FW	0.9	6.4	2.5	
Eastern Car Co. Ltd	Trenton, N. S		12-41	234	600	1	65	CE	1.9	7.7	5.5	
Firestone Tire & Rubber Co	Hamilton, Ont		5-42	225	Sat	2	30	BW		3.9	1.0	...
Maple Leaf Milling Co	Port Colborne, Ont	MacDonald Engrg	5-45	210		2	15	BWG		2.5		...

Typical Municipal Plants Installed on

Company	Location	Consulting Engineers	Date of Operation	Nominal Pressure (psi)	Nominal Steam Temperature	Number	Capacity	Manufacturer	Waterwall Surface	Heating Surface	Furnace Volume	Air-Heater Surface
UNITED STATES												
City of Glendale	Glendale, Calif	Carl A Heinze	5-47	600	825	1	200	CE	2.53	12.43	7.13	34.4
City of Springfield	Springfield, Minn	Chas Foster	7-46	480	750	1	55	WB		4.79[1]	.	25.2
City Water & Light Dept	Dyersburg, Tenn			450	700	1	80	BW	0.58	9.87	.	
McPherson Water & [illegible] Dept	McPherson, Kansas	Larrimore & Douglass	6-46	450	750	1	100	RS	1.63	5.15	.	25.0
Municipal Utilities	Marshall, Mo	Henrice Lowery	5-42	450	750	1	24	CE	.			
		Henrice Lowery	5-42	450	750	1	40	CE				
		Black & Veatch	1-47	450	750	1	60	CE	1.34	6.40	5.62	20.6
		C D Thomas	9-42	450	750	1	70	CE	0.78	7.65	4.25	
Public Utilities Comm	[illegible], Minn		6-46	450		2	150	CE, BW				
Peru Elec Lt & Water Depts	Peru, Ind	C D Thomas & Asso	11-46	450	730	1	45	BW	0.75	6.40	2.50	27.7
Richland Center Mun [illegible]	Richland Center, W[illegible]	F B Williams	1-47	425	750	1	60	RS	0.64	7.74	3.60	24.5
Public Service Commission	Yazoo City, Miss	Burns & McDonnell	2-46	415	750	1	80	BW	1.30	8.34	4.10	
City of Monroe	Monroe, La	[illegible] & [illegible]	6-42	400	725	1	110	BW	1.17	12.29		
City of Frankfort	Frankfort, Ind	Robert & Co	4-47	400	750	1	70	BW	.	7.33	.	35.0
City of Gainesville	Gainesville, Fla	Reid [illegible]	[illegible]-43	400	750	2	50	BW	1.11	5.45		
[illegible]	[illegible]	J M Hoover	7-46	400	750	1	40	[illegible]	3.41	4.78		
M[illegible] Mun[illegible]	[illegible]		1-46	400	725	1	50	BW		6.44	.	27.0
City of Thomasville	Thomasville, Ga											
CANADA												
[illegible]	[illegible]			450	825	1	130	FW	3.20	9.02	6.36	21.0
[illegible]	[illegible], Alberta		1942	415	750	1	165	BWG	1.65	21.78	7.10	33.4
[illegible]	[illegible]		6-45	275	550	1	70	FW	1.32	7.34	3.38	31.2
[illegible]	[illegible]		[illegible]-42	180	540	1	30	BWG		5.24		

8.5	Tu	I	S. Da	I	S. Da	P	C	13.8	2800	T	S. R										600	36
11.0	Tu	M	S. Da	M, I	S. Da	P	C	14.0	2650	I	S. R										450	13
17.0	Tu	M	Hy	M		G	G	0.86		IM, 1T	R										1146	30
3.8	Pl	M	S. Da	M	Da	P	C	14.4	2902	2M, 1T	S. R	0.2	1800	WE	9.0		A				100	
11.9	Tu	I	S	I	S	P	C	10.5	2100	T	S										380	
7.3	Tu	M	S. Da	M	S. Da	P	C	12.3	2600	IM, 1T	S										150	
4.7	Tu	I	S. Da	I	S. Da	G, P	G	18.5		T	S	1.0	3600	GE	25.0	1	A				200	4
3.1	Tu	T	S	I		P	C	12.2	2050	IM, 1T	R										145	0.5
		M	Da		Da	P	C	12.6	2200	IM, 4T	R	2.25	3600	MS	20.0						170	2.25
10.9	Tu	M	Da, V	M		P	C	14.5	2920	2M, 1T	S										150	2.5
	Tu	T	S. Da	I	S	P	C	13.0	2600	M	R										210	
		M	V			TG(144)	Ca	11.5	2500	T	S										60	
	Tu	M	Da	M	Da	UF	C															
	Tu	M	Da	M	Da	UF	C	11.3	2100	Sl	S	1	3600	MI	3.0	1	A			Ad	135	2.4
	Tu	M	Da	M	Da	SS	C															
		M	V	M	Da	TG 35	C	11.9		2Du	R										5	
		M, T	Da			UF(76)	C	13.5	2600	IM, 1T	R	2	3600	MS	1.0	1	A	36.4	2	Br	75	2
6.5	Tu	M	V		V	P, O	C, O			2T	R	0.8		TL	15.0		A				180	2.3
	Tu	M	Da	M	Da	P	C	12.7		IM, 1T	R										188	
		M				UF(94)	C	14.6	2900	IM, 1Du											50	0.55
		M, T	Da	M, T	Da	G	G	1.1		2T	R										260	
	Tu	M	Da	I	Da	P	C	13.2		I	S										450	15
		T				UF(137)	C	11.5													150	
		M	Da			UF(126)	C	14.8	2400												130	0.65
		M	Da, V		Da	O	O	18.1		Du	R										46	
		M, T	S. Da			TG(222)	Ca	11.0		2Du	S										70	
		M	Da	M	Da	P	C	13.6		IM, 3T	S, R										180	
		2M, T	Da			P	C	14.3		T	S										150	0.5
		M	V	M, T	Da	TG(240)	Ca	11.5	2500	IM, 2T	R										170	1.75
		M, T	S	M, I	S	UF	C			2T	R										60	
		T	Da	M		O	O			IM, 1T	R										28	
6.9	Tu	T	S	I	S	G	G	1.0		3T	S	12		MS	1.0				2	Ac	400	
		M	S	M	S	UF(199)	C	14.2	2400	IM, 1T											260	
		M	Da	M	Da	SS	C	11.0		2Du	R										38	
7.0	Tu	M	Da	M, T	Da	P	C	14.4		Du	R										200	7
6.5	Tu	M	Da	M	Da	P	C	13.5	2600	2T	S										100	
		T	S	T	S	G	G	1.0		T	R										750	
		M	Da		Da	SS(243)	C	13.0	2400	T	R										135	7
	Pl	T, 2Mp	V	2M	S	P	C			T	R	7.5	3600	WE	15.0	2						
	Pl	T, 2Mp	V	M, T	S	P	C			T	R											
21.5	Tu	M	Da	M	Hy	P	C	10.6-14.0	1950	M	S											
4.8	Pl	M	V	M	S	P	C	13.0	1900	T	S										140	
7.6	Pl	M	V	M	Hy	P	C	10.5	1900	M, T	S	3.5	3600	BB	165							
5.6	Pl	M	V	M	Hy	P	C	13.6	2000	T	S	4.0	3600	WE	0.5	2	A	2.23	2	Ad	190	7.6
12.5	Tu	M	V	I	S	P	C	11.5	2050	M	R	16	3600	CP	1.0	0	A	15	2	Ad	555	35
6.1	Tu	T	S. V	T	S. Da	TG	C	13.0	2000	T	S. R										180	
4.4	Tu	T	S. Da	I	S. V	P, O	C	13.4	2200	M, Du	S, R										110	
3.1	Tu	M, I	Da	M, I	Da	O, G	O	18.6		Du	R										200	
		M	Da			O, G	O	18.5		T											150	
25.3	Tu	2M, 3T	V, S	2M, 3T	Hy, S	P	C	13.1	2300	3M, 2T	S	20 4	1800 3600	WE WE	0.75 55.0	0 1	A A	13.4	2	Mu	1540	24
						CG	C															
		M	V	M	Da	UF	C	13.5	2500	2M	Du										69	
			S. Da		Da	UF	C	14.3	2650	2Du	S, R										51	
3.5	P	M	S	M		P, L	L	7.4		T	R	10	1800	AC	0.5	1	A		2	Ad	200	17.5
7.4	P	M	V	M	Da	P	C	13.3		T	S											
						SS	C															
		M				UF	C	15.2	1900													
			Da		Da	O	C, O														80	3
		M, T	Da, V		Da	SS	C	14.5		IM, 2T	R										120	
3.9	P	M	V	M	V	P	C	13.1		M		5	3600	GE	0.5	1	A	6.6	2	Br	137	6.6
		M, T	Da	M, T	Da	TG, SS	C	13.5	2520	IM, 1T	R										60	
		M	Da, Hy			UF	C	13.5	2400	IM, 1T, Sl	S, Hy	0.09	2000	WE	5.0						30	0.09

Under Construction Since September, 1941

13.[illegible]	Re	D	V	D	V	O, G	O	18.0		IM		20	3600	GE	1.0	4	H	16.0			600	40
2.95	Tu	D	S. Da	M		SS	C	12.2	2100	IT, 2D	S, R	2	3600	MS	0.75	1	A	3.0	2	Ac	80	3.75
6		2Mp	Da			UF 212	C	12.5	2000												255	8
10.6	Tu	D		D	Da	G	G	1.03		2M, 1T	S. R	5.0	3600	EL	1.0	3	A	7.5	2	Ad	190	10
		M	S. Hy	M	S. V	TG	C	10.5	2050	1D, 1T	R	2.5	3600	EL	1.0	2	A	4.75	2	Mu	64	4
		M	S. Hy	M	S. V	TG	C	10.5	2050	IM	R											
5.5		M	S. Da	M, 2T	S. Da	TG, O	C	10.5	2050	IM, IT, 1D	S. R	4.0	3600	EL	1.0	3	A	7.0	2		125	8
7.0		2Mp	Da	2Mt	2M	G	G	1.0		2M, 1D	R	6.0	3600	EL	1.0	3	A	8.0	1		140	11
												10.0		AC				20.0				
6		M	V		Da	SS 125	C	12.2		2T											100	
6					Da	G	G	1.00		IM, 1T	R	5.0	3600	GE	0.75	3	A	6.0	2	Ad	160	6
9.20	Tu	M	Ms	S	Ms	G	G			2M, 1T	R	6.0	3600	WE	0.75	3	A	7.5	2		140	13.6
		2Mp		2Mp		SS 242	G	11.1	2000	IM, 1T	R	6.0	3600	EL	1.0	3	A		2	Ad	150	12.75
97	Tu	M	V Da	S	S. Da	G	G	18.5		IM, 1T	R	5.0	3600	WE	1.2	3	A	8.0	2	Ad	213	9.0
			Da	T	Da	G	C	12.5	2100	2T		5.0	3600	AC	1.0	0	A	4.2	2	Ad	120	8
0		M	Da			SS 115	C	11.0	2100												66	
	Tu	M	Da	2Mp	Da	P	C	13.9	2400	IM, 1T	R	5.0	3600	WE		3	A	5.5	2	Ad	125	10.5
16.03	Tu	Du	V	Da	Hy	P	C	12.2	2100												425	43
16.36	Tu	Du	Ms	Du	Ms	TG 540	C	5.6	2120	IM, 1T	R	15.0	3600	CP	0.6	2	A	16.0	2	Mu	440	44
	Pl	M	Da	M	Da	G	G	0.98		2T	R	3.0	1800	GE	0.75	0	A	9.0	3	Ad	137	9.0
79		M		Da	Da		C	11.38	1900	2T, 2Du	R	2.5		AC	0.50		A	6.23	2		70	3.86

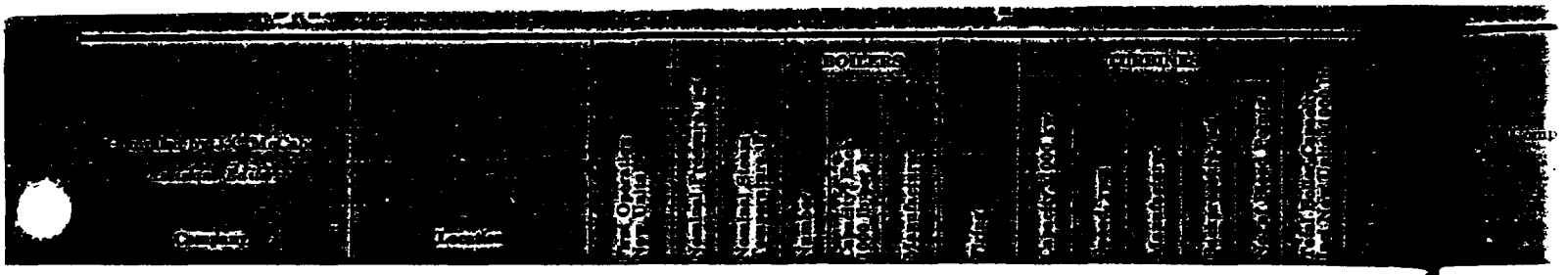
Compiled by J. C. McCabe, Assistant Editor

Company	Location	Consulting Engineers	First Operation, New Units	Nominal Pressure, psi	Nominal Steam Temperature, F	Boilers: Number	Capacity Each (1000 lb per hr)	Manufacturer	Waterwall Surface (1000 sq ft)	Heating Surface (1000 sq ft)	Furnace Volume (1000 cu ft)	[illegible]	[illegible]	Air-Heater Surface per Boiler 1000 sq ft
700 PSI AND ABOVE														
Utah Copper Co.	Magna, Utah	E J Franklin	-	950	900	2	350	BW	5 5	12 7	16 4	.....	9	49 3
Wyandotte Chemical Corp	Wyandotte, Mich.	Burns & Roe	5–43	925	870	1	200	BW		16 7¹	9 9	24.3		25 0
Firestone Tire & Rubber Co	Memphis, Tenn.		12–44	900	725	1	125	BW	1.6	12.4	5.55	29.0		12 2
Pittsburgh Plate Glass Co.	New Martinsville, W. Va.		7–43	850	750	3	150	BW	2.4	15.0	8.6	22.9	92	12.1
Socony-Vacuum Oil Co	Paulsboro, N. J		4–44	850	750	4	125	CE	2.27	10.5	6.9	24.5		17 3
Weirton Steel Co.	Weirton, W. Va.		1–47	850	800	1	325	BW		20 5	16 8	....		49
Cities Service Refining Corp	Lake Charles, La.	Gibbs & Hill	3–44	825	825	2	325	BW	.....	21.3	14.6	32.6		34
Sinclair Rubber, Inc	Houston, Texas		10–43	750	750	6	300	CE	3 2	17 7	11 1	39.0		36
Dairyland Power Co-op	Genoa, Wis.			700	850	2	50	RS	2.0	4 5	2 75	23 4		8
Military Chemical Wks Inc	Pittsburgh, Kan.	Chem Constr. Co.	1–43	700	700	3	200	RS	5 9	13 1	10 0	21.0	3 2	2
Monsanto Chemical Co.	Springfield, Mass.	C T Main	4–42	700	750	1	80	FW	....	7 9¹	....	....		
500 TO 699 PSI														
Standard Oil Co of N. J.	Linden, N. J.		4–46	685	740	1	300	RS	8.9	21 0	21 3	20 8		50
Hammermill Paper Co	Erie, Pa	C T Main	10–46	675	750	2	150	CE	2 9	12.9	8.9	23.0		20
R J Reynolds Tobacco Co	Winston-Salem, N. C	J E Sirrine & Co	12–46	675	750	1	200	CE	4.5	15 4	.....	18.7		
Celanese Corp of Am	Newark, N. J		9–45	650	650	1	60	CE	.....		.....			12
Fox Paper Co	Cincinnati, Ohio	W I Barrows	8–43	650	630	1	65	BW		6.7	.....	24.2		10
Industrial Rayon Corp	Painesville, Ohio		8–44	650	750	1	90	CE	2.6	9 2				16
~~[illegible]~~	~~[illegible]~~		6–42	650	750	1	125	RS	6 1	8 5	8 1	22 3		17
			1943	650	750	2	175	FW	8 2	18.5	12 6	20 0		13
			1945	650	750	1	175	BW	12 5	15 8	17 5	15 0		21
Shell Oil Co	Deer Park, Texas		1946	650	750	3	250	BW	3 5	17 8	12 2	25.0		
U. S. Sugar Corp	Clewiston, Fla	Rust Engrg	12–45	650	665	1	100	BW	4 0	8 9	6.4	....		
General Aniline & Film Corp	Binghamton, N. Y	Baker & Spencer	8–46	625	755	3	40	CE	1.3	5 5	2.6	24.0	1 8	
Utah Oil Refining Co	Salt Lake City, Utah	Sargent & Lundy	2–44	625	750	4	70	BW	....			....		
Humble Oil & Refining Co	Baytown, Texas		1943	620	745	2	275	CE	1.6	19 3	12.0	35 0		
			1946	620	745	1	275	CE	1.6	19.3	12.0	35.0		
St. Joe Paper Co	Port St. Joe, Fla.	G F Hardy		615	715	1	100	CE			....			
Southland Paper Mills, Inc	Lufkin, Texas	G F Hardy	7–47	610	750	2	175	CE	2 5	14 3	....	29 9		
Bryant Paper Co	Kalamazoo, Mich		1–47	600	750	2	80	RS	3 9	7 3	4 6	21.5		
Carbide & Carbon Chem Corp.	Texas City, Texas	Ford, Bacon & Davis	5–43	600	700	1	134	BW		12 0	5.3	....		17
Celanese Corp of Am	Narrows, Va.		5–42	600	800	1	150	RS	4 9	10 6	8 8	22.7		
			11–46	600	800	1	200	RS	7 2	14 7	13 0	20.6	2 2	
De Laval Steam Turbine Co	Trenton, N. J		1943	600	850	1	75		2.5	2.5	3 8	23.4	0 79	
Detroit Sulphite Pulp & Paper	Detroit, Mich	Gibbs & Hill	...	600	740	2	90	BW	0 66	10.2	4 8	.....		
Lederle Laboratories	Pearl River, N. Y		9–46	600	750	1	30	RS	1.9	9 9	5 25	.....		
Richfield Oil Corp	Wilmington, Calif	R Johnson	6–44	600	625	2	250	CE	3 2	17 5	11.4	32.0	3 5	
Sherwin Williams Co	Chicago, Ill	Schmidt, Garden & Erickson	2–47	600	750	3	75	EM	1.8	7 8	....	26.4		
The Texas Co	Lockport, Ill.		..	600		9	70	FW	....	8 7¹	3 2	27.5		
U. S. Engineers	Pryor, Okla	E I Du Pont	7–42	600	700	6	170	CE	3.5	10 0	.....	18 0		34
Gulf Oil Corp	Port Arthur, Texas		1–43	550	630	1	250	BW	2 8	16 7	11 5	28.4		15
			6–44	550	630	1	250	BW	2 8	16.7	11.5	28.4		15
400 TO 499 PSI														
~~Alton Boxboard Co~~	~~Alton, Ill.~~		11–44	475	740	1	100	RS	6 05	9.6	9.0	15.8		17
Gulf States Paper Corp	Tuscaloosa, Ala.		4–46	475	650	1	100	BW	....					
Lee Rubber & Tire Corp.	Conshohocken, Pa		10–45	475	700	2	40	RS	1 6	5.7	2 8	24.8	1 5	
Federal Paper Board Co	Bogota, N. J	K A Leiren	1946	465	700	1	70	BW	0 2	7 7	2.8	34.0	1 9	
Berst-Forster-Dixfield	Plattsburgh, N. Y.	H F Hallock	8–46	460	640	1	30	BW	0	4 9	....	....		
General Aniline & Film Corp	Grasselli, N. J		3–44	460	700	1	90	BW	1 5	7 2	4 5	22.0		
Bakelite Corp	Bound Brook, N. J	Francisco, Jacobus	11–46	450		1	125	BW	0 7	15 9	5 3	29 8	1 6	
Canton Industries, Inc	Clinton, Iowa	Sargent & Lundy	4–46	450	550	2	100	BW	1 1	10 8	4 2	32.0		
Congoleum Nairn Corp	Marcus Hook, Pa		12–46	450	485	2	75	BW		8 5	2.9	26 2		
Hercules Powder Co	Bradford, Va	N G Haag	3–43	450	750	1	175	CE	2.9	14 1	.....	26.5	5 1	
Keystone Steel & Wire Co	Bartonville, Ill		9–46	450	750	1	150	CE	2 3	12 0	.....	.....		
Minnesota, Ontario Paper Co	Int'l Falls, Minn		3–42	450	580	1	85	CE	2 5	8 3	4 5	....		
Publicker Industries	Philadelphia, Pa	United Engrs	1945	450	750	6	100	RS	2 6	9.4	6 4	18.5		
Republic Rubber Co	Youngstown, Ohio	R R Jones	1945	450	650	1	65	BW		7 2			2 5	
Walworth Co, Inc	Kewanee, Ill		5–45	450		1	60	EM	1 1	6 3	3 4	28 0		
Blandin Paper Co	Grand Rapids, Minn	Heimick, Ldeskuty & Lutz	2–42	425	650	1	100	BW		11 0¹	5.6	24 1		
Calvert Distilling Co	Relay, Md	Smith, Hinchman & Grylls	9–46	425	600	1	75	BW	1 9	10 2	....	17 8		
Magnolia Petroleum Co	Chisholm, Texas		2–43	425	675	2	175	CE	2 4	12 9		35 0		
Oneida Ltd	Sherrill, N. Y		5–46	425		1	70	BW		7 0	1.7	43 0		
Pittsburgh Steel Co	Monessen, Pa	Freyn Engrg		425	700	2	175	CE	4 2	19 3		20 8		
Joseph E. Seagram & Sons	Lawrenceburg, Ind	Smith, Hinchman & Grylls	5–46	425	sat	1	125	CE	3 7	11 6	9 1	18 0		
Socony-Vacuum Oil Co	E. St. Louis, Ill		1943	425		2	30	Vo						
Paraffine Co, Inc	Emeryville, Calif	L S Rosener	1–47	420	630	1	100	BW						
Union Bag & Paper Corp	Savannah, Ga	Rust Engrg	9–45	420	750	1	200	BW		17 7	9 9	27 8		
American Viscose Corp	Front Royal, Va	I Mayne	1945	415	700	1	225	CE	3 6	11 7				
Holly Sugar Corp	Colorado Springs, Colo		1947	410	575	1	180	RS	2 6	16 7	7.8	26 5		
Navy Department	Bremerton, Wash		9–45	405	705	1	75	EM	1 4	9 0	3 5	25 6	7 6	
			1–42	405	700	1	120	EM	2 0	10 0	4 1	40.0	7 6	
U. S. Naval Gun Factory	Washington, D. C	H A Kuljian	1–43	405	700	1	120	EM	2 0	10 0	4.1	40 0		
[illegible] Ore Co	Rosiclare, Ill	W S Skeels	12–42	400	750	1	40	BW		5 1	1 6	32.3		
[illegible] Co	Lawrence, Mass	C T Main	1–47	400	500	1	70	RS	2.6	6 7	3 7	24.8	1 9	
Franklin Board & Paper Co	Franklin, Ohio		1–46	400	600	1	55	BW	0 3	7 4	1 9	35 0		
				400	700	1	105	BW		7 3	3 1	31 9		
Kaiser Co, Inc	Fontana, Calif		..	400	700	2	165	BW		12 9	6 0	31 9		
National Lead Co	Sayreville, N. J	J G White	7–46	400	637	1	250	RS	6 9	16 1	13 5	22 0		
Penobscot Chem Fibre Corp	Great Works, Me	H S Ferguson	1946	400	750	1	200	RS	5 3	12 5	10 5	25 5		
Rocky Mountain Arsenal	Ladora, Colo	Whitman, Requardt & Smith — H A Kuljian	1943	400	700	2	115	BW	1 4	10 9	5 5			
[illegible] Paper Co	Middletown, Ohio	J E Sirrine	1946	400	700	1	120	BW	...		...	....		

AB —Aluminum bronze
AC —Allis-Chalmers Mfg Co
Ac —Arsenical copper
Ad —Admiralty
BB —Brown Boveri
BW —Babcock & Wilcox Co
BWG —Babcock-Wilcox & Goldie-McCulloch Ltd
C —Coal, bituminous
CA —Coal, anthracite
CB —Coke breeze
CE —Combustion Engineering Co
DB —Dominion Bridge
DD —Dual drive
DL —DeLaval
Du —Duplex
EC —Erie City Iron Works
El —Elliott Co
HB —Hard-drawn brass
Hy —Hydraulic coupling
L —Lignite

40.3	Tu	M	V	M	Hy, V	P	C	12.8		3M, T		50	3600	GE		5	H	50	1	.	1,050	100
25.0	Tu	M	V	M	Hy	P	C	13.1	2200	M		6.0	3600	AC	245	0	A				600	14
12.24	Tu	M	Da	M	Da	G	G	0.98		T	R										250	1
												10.0	1800	GE	0.75	0	A	15.0	2	Ad		
12.1	Tu	T	S	T	S	UF(406)	C	12.4	2200	T	S	7.5	1800	GE	0.75	0	A	13.1	2	Ad	450	34
												15.0	3600	WE	190.0	0						
												1.5	3600	WE	45.0							
17.9	Re	T	S, Da	T	S, Da	O, G	O, G			T	S	5.0	3600	GE	205	1	A				1,100	21.7
47.5	Tu	T	S	T	S	P	C		2200	T	R	25.0	3600	WE			H				13,000	90
34.3	Tu	M	S, V	M	S, V	G	G	1.055		T		50.0	3600	GE	0.75	1	A	17.0	2	Ad	650	50
36.9	Re	T	Da	T	Da	G	G	1.085	...	T	S	35.0	3600	GE	1.80	1	H				1,800	35
8.2	Tu	M	S	M	S	P	C			M, T	R	4.0	3600	MS	1.0	3	A	4.0	1	Ac	180	14
22.5	Tu	M	Da	M	V	P	C	11.0-12.0	2100	2M, T	S	20.0	3600	MS	1.0	1					1,000	25
2.9	Tu	2M	V	T	...	P	C	14.0	2300	M, T	R	...	...		.					..	.....	..
50.0	Tu	T	S	T	S	O, G	O, G														1,125	30
20.0	Re	M	V	M	Da	P	C	12.9	2000	1M, 1T		7.5	3600	GE	1.0	2	A	7	2	Ad	550	18
	Tu	M	V	M	Da	P	C	14.0	2150	T	S							...			520	10
	Re	M	Da	M	S	P	C	14.0	2700	1M, 1T	R		.								190	4.25
12.0	Tu	M	Da	M	Da	P	C	13.5	2400	...	R									.	65	17.5
10.6	Pl	M	Da	M	Da	P	C	12.3		M	R				.						..	
16.5	Tu	T	S	T	S	P, O, G	C	12.3	2100	1M, 3T	S											
17.3	Tu	T	Da	T	Da	P, O, G	C	12.3	2100	1M, 3T	S	15.0	3600	GE	195	0	A				1,550	20
18.0	Tu	T	S	T	S	P, O, G	C	12.3	2100	1M, 3T	S											
21.8	Re	T	S	T	S	G, O	O	18.0		2M, 3T	S	20.0	3600	AC	215	0	A				1,385	25
6.6	Tu	M		M		O, G.	O	18.3		1M, 1T		3.5	3600	GE	0.5	1	A				350	7.8
0	.	M	V	M	Da	TG(200)	Ca	10.8	2700	M	R	6.6	3600	MS	1.25	1	A	2.25	2	Ad	120	6.6
	.	M	S, Da	M	Da	.	Ca	14.0		T	S, R	...			...					...	210	
22.9	Re	T	S, Da	T	S, Da	G	G	1.25	.	2T	S	7.5	3600	GE	170			...	..	....	2,485	41.5
22.9	Re	T	S, Da	T	S	G	G	1.2	..	DD	S											
	Tu	M	V, Hy	M	Da —	O	O	...	..	2M, 1T	R	12.0	3600	GE	15.0	2	A		2	Ad	464	12
20.1	Tu	M	Da	M	Da	G	G	1.055	.	1M, 1T	R	10.0	3600	GE	1.5	2	A	12.0	2	Ac	650	32
11.0	Tu	T	S	T	S, Da	P	C	11.5	2100	2M, T	R	5.0	3600	GE	1.0	2	A	4.0	2	Ad	240	10
...		T	Da	T	Da	G	G	1.05		T	R	4.3	3600	GE	70		A			.	402	8.75
17.2	Re	M	V	M	V	P	C	14.0	2300	1M, 2T	R	7.0	3600	GE	1.5	2	A	3.68	2	Ad	650	21
23.8	Re	M	V	M	V	P	C	14.0	2300	1M, 2T	R											
7.0	Tu	M, T	S	M, T	S	UF(219.5)	C	14.0		T	R	1.25	5680	DL	1.5	1	A		2	.	100	3
4.4	Tu	T	Da	T	Da	UF(255)	C	12.8	2100	2M, 1T	R	4.0	3600	AC	1.04	1	A				[illegible]	[illegible]
	Tu	M, T	V	T	S, V	SS, O	C, Ca, O		.	1M, 1T	R	.		.								
	Pi	T	S, Da	T	S, Da	O, G	O	18.5		T	R		..	....	..				..		770	
	..	M	S	T	S	UF(308)	CB	10.4	2150	1M, 2T	R			..								
	...	T	S	T	S	G, O	G	1.6	..	M, T	S, R									...	630	
54.3	Tu	T	S, V	T	S, V	P	C	11.0	.	T	S	10.0	3600	GE	2.5	2	A	..	2	...	1,020	20
												10.0	3600	GE	50.0					....		
15.8	Tu	M	Da	M	Da	G	G	1.055	.	T	R	10.0	3600	AC	145	0	A	...		..	950	20
15.8	Tu	T	Da	T	Da	G	G	1.055	.	T	R											
												1.5	3600	WE	1.0	2	A	3	1	Ad		
17.0	Tu	M	V	M	Da	P	C	10.0	2050	T	S	9.0	3600	WE	47.0	2					350	10.9
		M	Da	M	Da	BL	BL			1M, 1T		7.5	3600	WE	40.0	1	A			....	450	16.25
2.8	Tu	M, T	Da	M, T	Da	P	C	14.5	2600	1M, 1T	R				...	..				..	205	
4.2	Pi	M	Da	M	Da	TG(318)	Ca	11.2	2800	1M, 1T	S, R	1.0	3600	GE	165		A			.	145	1.7
0			S, Da		Da	P	C	14.2	2800	...	R							..		...	120	5
6.9	Tu	M	Ma	M	Ma	P	C	13.4	2560	T	R	.	...							.	270	4.5
		M, T	V		Da	UF(302)	C	12.9	2150	M, T	R									..	263	
7.5	Tu	M, T	V	M, T	S, Hy	SS(267)	C	10.1	1900	T	R	3.5	3600	AC	165	0	A				670	12
	Tu	M	Da	M	Da	P	C	13.5	2200	M, 2Du	R				...						185	
19.6	Tu	M, T	V	M, T	V	P	C	13.0	2530	Du	R	6.0	3600	AC	1.25	1	A	...			875	24
		2Mp	Da	2Mp	Da	SS(440)	C	9.95	.	1M, 1T	R	...		...	..						390	17
7.4	Tu	M	Da	M	Ma	P	C	14.2		M	R	7.5	3600	GE	0.75	2	A	8.5	2	Ad	700	18
9.6	.	M					C	13.0	2400											..	1,260	
		T	Da	T	S	TG(180)	C	13.5	2200	1M, 1T	R	2.25	3600	GE	4.0	1						
		M, T	Da	M, T	Da	SS(145)	C	10.5	2300	T	R											
5.0	Tu	M	Da, Ma	M	Da, Ma	P	C	13.8	2400	M, T	S, R	4.0	3600	AC	1.0	2	A	3.8	2	Ad	215	9.5
9.8	Re	M	Da	M	Da	P	C	13.6		1M, 1T	R										210	6.2
12.9	Re	T	Da	T	Da	G	G			T	R	7.5	3600	GE	0.75	2	A	5.5	2	Ad	1,410	25
25.6	Tu	M	Da	M	Da	SS(129)	C	14.5	2600					...							130	16
15.1	Re	T		T		P	C	12.5		T											900	
30.5	Pi	M	Da	M	Da	P	C	11.0	2100	1M, 1T											335	1.4
		T	S	T	S	O, G	O, G		.	1M, 1T	R									..	280	
.	Tu	M, T	V	M, T	V, Da	G	G	1.03		T	R										310	2.5
	Tu	M	Da	M	Da	P	C	13.2	2400	1M, 1T	S	7.5	3600	GE	1.0	2	A	10.0	1	Ac	1,200	25.5
25.7	Tu	M, T	S	M, T	S	P	C	11.5	2600	T	S, R	7.5	3600	GE	40.0		A			.	900	33
		M	V	M	V	O	O	18.5		2M, 1T	R	5	3600	GE	64.7	0	A			..	180	3
9.4	Tu	M	V	M	V	O	O	18.5		1M, 1T	R				.					.	400	
0	.	T	S	M	V	UF(293)	C	14.0	2650	1M, 1T	R											
0	.	T	S	M	V	UF(295)	C	14.0	2650	1M, 1T	R											
	.	M	Da		Da	TG(137)	C	10.6	2000	1M, 1T	S	1.67	3600	EL	5.0	0	A			..	89	1.67
6.6	Tu	M	S, V	M	S, V	P	C	13.8	2400	M, T	S									..	150	[illegible]
		M	V	M	Da	TG(145)	C	12.5	2700		R										110	1.5
11.6	Tu	M, T	S, Da	M, T	S, Da	O, G	O, G	..		T	R										475	
11.7	Tu	M, T	S, Da	M, T	S, Da	O, G	O, G			T	R											
27.5	Tu	M, T	S	M, T	S	P	C	13.4	2300	M	R	5.0	3600	WE	1.25	2	A	5.5	2	.	500	11
29.0	Tu	M	V	M	V	P	C	14.8	2200	1M, 1T	R	3.5	3600	GE	165.0	0	A					
	Pi	M	Da	M	Da	SS(297)	C	9.6	2500	M	R	7.5	3600	WE	1.0	2	A	7.67	2	..	230	7.5
		M	....	M	Ma	P	C	12.5	2200	M	R		...	...				...		...	..	...

[illegible]oore Steam Turbine Div — RS—Riley Stoker Corp — Tu—Tubular — (150)—Stoker grate area, sq ft
[illegible]o motors per fan — S—Speed control — UF—Underfeed stoker — [illegible]—Includes water wall
[illegible] motor, one turbine per fan — Si—Simplex — UI—Union Iron Works — [illegible]—Continuous ash discharge
Muntz metal — SS—Spreader stoker — V—Vane control — [illegible]—Both fans on one shaft
Oil [illegible] — ST—Slag tap — VK—Vickers Keeler Boiler Co — [illegible]—Subbituminous
Pulverized-fuel firing — T—Turbine drive — Vo—Henry Vogt Machine Co — [illegible]—1000 Btu per 1000 cu ft
Plate [illegible] — TE—Terry Steam Turbine Co. — WE—Westinghouse Electric Corp — [illegible]—High-pressure boilers for testing purposes
Regulator — TG—Traveling-grate stoker — WI—Wickes Boiler Co
Regenerative [illegible]



200 PSI

Atlas Powder Co.	Stamford, Conn.	8–46	200	490	1	60	CE	TG (240)	....	....	....	....	..	60	.....
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	RS	P	....	....	....	....	..	80	.....
Dewey Portland Cement Co.	Davenport, Iowa	.....	200	480	4	30	EM	C	4.5	1800	GE	....	..	140	5.15
Exchange Orange Prod Co.	Ontario, Calif.	.....	200	388	1	33	BW	O	....	....	....	....	..	33	.....
Fleming & Sons, Co	**Dallas, Tex.**	**9–46**	**200**	**427**	**1**	**60**	**Vo**	**G**	**1.75**	**3600**	**WE**	**..A**	**1**	231	**4.0**
General Electric Co.	Tiffin, Ohio	6–46	200	Sat	2	20	BW	SS (63)	....	....	....	....	..	40	.....
Hinde & Dauch Co.	Cleveland, Ohio	7–46	200	...	1	18	BW	O	....	....	....	....	..	18	.....
Hinde & Dauch Co.	Buffalo, N. Y.	.....	200	...	1	18	BW	O	....	....	....	....	..	18	.....
Hinde & Dauch Co.	Watertown, Mass.	.....	200	...	1	18	BW	O	....	....	....	....	..	18	.....
Neosho Valley Cooperative	Erie, Kan.	3–46	200	...	1	25	BW	CA, O	....	....	....	....	..	25	.....
N. Y. & Richmond Gas Co.	Staten Island, N. Y.	11–45	200	450	1	13	BW	UF (85)	....	....	....	....	..	....	.....
Northwest Paper Co.	Brainerd, Minn.	10–45	200	Sat	1	60	CE	SS (129)	....	....	....	....	..	110	.....
Pasco Packing Assn.	Dade City, Fla.	3–45	200	Sat	1	00	BW	O	....	....	....	....	..	180	2.5
Plainfield Union Water Co.	Plainfield, N. J.	5–46	200	388	1	19	BW	UF (63)	....	....	....	....	..	34	.....
Todd Shipyards, Inc.	San Pedro, Calif.	2–46	200	Sat	4	3.5	OW	O	....	....	....	....	..	16	.....

160 TO 199 PSI

Lake City Ordnance Plant	Independence, Mo	10–41	190	Sat	3	75	BW	O, G	....	....	....	....	..	225	.....
General Electric Co	Danville, Ill.	6–46	185	Sat	2	15	BW	G	....	....	....	....	..	30	.....
J D Grover & Sons, Co.	Philadelphia, Pa.	8–46	185	382	1	25	EM	O	....	....	....	....	..	50	.....
[illegible]	[illegible]	9–41	175	378	3	75	RS	C, O	....	....	....	....	..	250	.....
[illegible]	[illegible]	9–41	175	378	1	25	RS	C, O							
Eastman Kodak Co.	Rochester, N. Y.	1941	175	377	2	20	K	UF (90)	....	....	....	....	..	100	.....
		1941	175	490	2	30	BW	UF (90)							
Frontier Refining Co	Cheyenne, Wyo.	.....	175	...	2	15	BW	O	....	....	....	....	..	30	.....
General Electric Co.	Fort Edward, N. Y.	1946	175	...	2	12	BW	O	....	....	....	....	..	24	.....
[illegible]	[illegible]	11–45	175	377	1	20	RS	UF (59)	....	....	....	....	..	25.5	.....
Norfolk Shipbuilding Corp.	Norfolk, Va.	3–42	175	...	2	15.5	CE	SS (38)	....	....	....	....	..	31	.....
Abbott Laboratories	North Chicago, Ill.	1944	160	370	1	40	EM	C	....	....	....	....	..	101	.....
[illegible]	[illegible]	1–45	160	420	2	60	RS	C	....	....	....	....	..	120	.....
Allis-Chalmers Mfg. Co.	West Allis, Wis.	.....	160	470	3	150	RS	P	7.4	3600	AC	0.75	0	672	19.4
[illegible]	[illegible]	.....	160	500	4	125	RS	O, G							
Bethlehem Steel Corp.	Bethlehem, Pa.	.....	160	500	2	80	BW	O	....	....	....	....	..	1936	33
		.....	160	500	3	13.6	CE	WG							
Continental Distilling Corp.	Philadelphia, Pa.	1944	160	Sat	2	75	CE	UF (236)	....	....	....	....	..	300	.....
Intl Bus Machines Corp.	Endicott, N. Y.	11–44	160	360	1	80	BW	UF (204)	1.3	1320	MS	2.0	1	160	1.3
Northern Pacific Rwy Co.	Livingston, Mont.	8–45	160	364	2	53	BW	SS (184)	....	....	....	....	..	....	.....
[illegible]	[illegible]	.....	160	385	1	65	RS	TG (215)	....	....	....	....	..	130	1.5
Peoples Natural Gas	Brave, Pa.	7–46	160	420	3	80	BW	P	2	3600	EI	1.25	0	240	2.0
[illegible]	[illegible]	1944	160	Sat	2	100	RS	P, O	....	....	....	....	..	1260	.....
[illegible]	[illegible]	5–46	160	500	1	25	BW	TG (98)	0.5	3600	WE	1.0	1	100	1.5
Seattle Gas Co.	Seattle, Wash.	.....	160	Sat.	2	50	BW	O	....	....	....	....	..	....	.....
Skelly Oil Co.	Eldorado, Kan.	.....	160	500	3	65	VO	O	0.1	3600	GE	15.0	0	295	0.1
		.....	160	500	4	25	HB	O							
Southern Calif. Gas Co.	Los Angeles, Calif.	6–43	160	Sat	3	70	BW	O	....	....	....	....	..	....	.....
[illegible]	[illegible]	10–43	160	370	3	110	RS	P	....	....	....	....	..	330	.....
Spokane, Portland & Seattle Rwy.	Portland, Ore.	5–46	160	370	2	7.5	BW	O	....	....	....	....	..	15	15

150 PSI AND BELOW

Allis-Chalmers Mfg. Co.	Norwood, Ohio	12–41	150	365	1	40	BW	P	....	....	....	....	..	....	.....
Baldwin Locomotive Wks	Burnham, Pa.	10–43	150	500	2	90	BW	P	....	....	....	....	..	360	.....
Carstens Packing Co.	Spokane, Wash.	.....	150	324	2	6	CE	SS	....	....	....	....	..	....	.....
[illegible]	[illegible]	1–43	150	Sat	8	38	BW	O	1.25	3600	WE	5	1	159	1.25
E I du Pont de Nemours	Arlington, N. J.	.....	150	366	1	50	BW	P	....	....	....	....	..	....	.....
[illegible]	[illegible]	3–45	150	...	1	25	RS	UF (75)	....	....	....	....	..	41	.....
[illegible]	[illegible]	5–46	150	366	1	15	RS	O	....	....	....	....	..	25	.....
General Motors Corp.	Wilmington, Del.	7–46	150	366	3	60	BW	O	....	....	....	....	..	180	180
G M C-Frigidaire	Moraine City, Ohio	10–40	150	Sat	1	00	BW	P	....	....	....	....	..	428	.....
Hooker Electrochemical Co.	Niagara Falls, N. Y.	1–44	150	366	1	50	EC	P	....	....	....	....	..	200	.....
Knowlton Bros	Watertown, N. Y.	1–46	150	366	1	25	BW	UF (82)	....	....	....	....	..	....	.....
Miami Valley Coated Paper	Franklin, Ohio	2–46	150	...	1	16.4	BW	TG	....	....	....	....	..	....	.....
Naval Torpedo Station	**Keyport, Wash.**	.....	150	Sat	2	12	LI	O	0.5	3600	WE	1.0	0	49	13
		.....	150	Sat	1	25	BW	O							
Plywood Plastics Corp.	Hampton, S. C.	.....	150	...	2	18	....	O, W	....	....	....	....	..	90	.....
R J Reynolds Tobacco Co	Danville, Va.	1–46	150	Sat	1	26.5	CE	SS (73)	....	....	....	....	..	26.5	.....
Rubsam & Horrmann Brewing	Staten Island, N. Y.	1–43	150	Sat	1	20	EC	P	....	....	....	....	..	40	.....
Tantalum Defense Corp.	North Chicago, Ill.	6–42	150	366	3	40	BW	SS (150)	....	....	....	....	..	120	.....
University of Missouri	Rolla, Mo.	1946	150	366	2	18	BW	CG (75)	....	....	....	....	..	36	.....
University of Akron	Akron, Ohio	9–46	150	Sat	2	15	BW	UF (54)	....	....	....	....	..	30	.....
Upjohn Co.	Kalamazoo, Mich.	1–45	150	...	1	45	UI	UF	....	....	....	....	..	....	.....
Ganado Mission	Ganado, Ariz.	12–42	140	Sat	1	7	LI	SS (40)	....	....	....	....	..	22	0.25
		3–46	140	Sat	1	15	BW	SS (54)							
Mohawk Carpet Mills	Amsterdam, N. Y.	.....	140	360	2	60	CE	P	....	....	....	....	..	120	.....
Naval Air Station	Lakehurst, N. J.	.....	135	350	3	35	BW	O	....	....	....	....	..	120	.....
Alden Mills	New Orleans, La.	10–45	130	356	1	7	BW	G	....	....	....	....	..	....	.....
Virginia Hot Springs	Hot Springs, Va.	.....	130	355	1	24.7	BW	UF (72)	....	....	....	....	..	55	1.0
Deep Sea Products Co	Aberdeen, Wash.	2–46	125	Sat	1	10	RS	O	....	....	....	....	..	10	.....
Diebold, Inc.	Canton, Ohio	1942	125	...	2	23	BW	C	....	....	....	....	..	....	.....
Eagle Picher Co.	Joplin, Mo.	1–43	125	462	1	23	RS	O	....	....	....	....	..	43	.....
Excelsior Mill	Union, S. C.	.....	125	353	1	32.5	BW	SS (90)	....	....	....	....	..	48.3	.....
H J Heinz Co.	Medina, N. Y.	9–45	125	Sat	1	60	BW	P	....	....	....	....	..	....	.....
	Tracy, Calif.	6–46	125	...	3	50	BW	O, G	....	....	....	....	..	150	.....
Lloyd Mfg Co	Menominee, Mich.	11–46	125	338	2	30	CE	SS (125)	....	....	....	....	..	60	.....
J A Manning Paper Co	Troy, N. Y.	9–46	125	Sat	2	12	RS	UF (50)	....	....	....	....	..	....	.....
Naval Air Station	Jacksonville, Fla.	12–42	125	344	3	13.5	BW	O	....	....	....	....	..	40	0 375
Page Milk Co.	Merrill, Wis.	1944	125	...	1	25	UI	P	....	....	....	....	..	....	0.225
Physical Culture Hotel	Dansville, N. Y.	.....	125	..	1	10	BI	....	....	....	....	....	..	20	.....
		.....	125	...	1	10	CE	UF							
Washington Gas Light Co.	Washington, D. C.	2–43	125	344	1	70	BW	P	....	....	....	....	..	366	.....
		12–41	125	344	2	50	BW	P							
Western Condensing Co.	Mishicot, Wis.	3–44	125	345	1	10	UI	P	....	....	....	....	..	....	.....
Wyman Gordon Co.	Harvey, Ill.	1943	120	350	3	80	BW	SS (192)	....	....	....	....	..	240	.....
McGuire General Hosp.	Richmond, Va.	3–44	110	344	4	30	UI	SS	....	....	....	....	..	120	.....
Naval Air Station	Olathe, Kan.	9–42	110	Sat	3	40	BW	O, G	....	....	....	....	..	120	0.3
American Asphalt Roof	Kansas City, Mo	3–46	100	330	1	13	CE	CA	....	....	....	....	..	9	13
Boeing Aircraft Co.	Seattle, Wash.	1942	100	338	2	14	KB	O	....	....	....	....	..	112	.....
		1946	100	650	1	14	RS	O							

150 PSI AND BELOW — *Continued*															
R C A Corp	Lancaster, Pa	....	100	345	3	7	KB	UF (56						30	
		....	100	345	1	15	CE	TG (58							
U S Army	Camp Butner, N C	9–42	100	340	5	7	BW	UF (36						15 7	
Warumbo Mfg Co	Lisbon Falls, Me	9–46	100		4	88	BW	SS (56)							
Westinghouse Elec Corp	Attica, N. Y	5–45	100	308	1	27	BW	UF (51)						45	
Winthrop Mills	Winthrop, Me	6–43	100		1	18	BW	UF						30	0 225
		6–43	100	..	2	12	IB	UF							
CANADA															
Canadian Intl Paper Co	Gatineau, Que	12–46	200	455	1	200	CE	P						700	
Canadian Vickers, Ltd	Maisonneuve, Que	6–41	200	388	3	18	VK	UF (54						55	
Consumers Gas Co	Toronto, Ont.	1946	200	453	1	45	DB	O, G							
Kroehler Mfg Co., Ltd	Stratford, Ont.	7–46	200	..	1	18	BWG	UF (54)							0.4
Rolland Paper Co	St Jerome, Que	10–45	200	..	1	18	VK	SS	02	3600	BW	10	0	60	
		3–46	200	..	1	18	VK	SS							
160 TO 199 PSI															
British-American Oil Co., Ltd	Clarkson, Ont	10–43	185	480	3	60	FW	O, G						180	
Canadian Pacific Rwy	Montreal, Que	11–41	185	525	2	100	CE	P							
Dominion Silk Dyeing Co. Ltd	Drummondville	12–42	185	382	1	45	BW	P						105	
Toronto Terminals Rwy	Toronto, Ont.	1–44	180	550	1	100	BWG	P						297	
Truro Electric Comm	Truro, N S	1942	180	540	1	30	BWG	P						60	
Brompton Pulp & Paper Co	Red Rock, Ont	10–45	175	477	2	60	CE	P						208	
Building Products, Ltd	Ville La Salle, Que	9–45	175	Sat	2	22	CV	O						44	
Canada Wire & Cable Co	Toronto, Ont.	1944	175		1	30	FW	UF (87						75	
E B Eddy	Hull, Que.	1945	175	508	1	100	BWG	UF (286						280	
Shawinigan Chem Co	Shawinigan Falls, Que	11–41	175	377	1	60	FW	P						60	
J R Booth, Ltd	Ottawa, Ont	1944	165	480	2	70	FW	P						225	
Booth Lumber, Ltd	Tee Lake, Que	5–46	160	415	1	35	FW	W	0 4	4500	MS	19	0	63	525
Eldorado, Inc	Port Hope, Ont	1943	160	Sat	1	25	DB	C						...	
Canadian Pacific Rwy	Winnipeg, Man	2–44	160	500	3	40	FW	TG (156						120	
Dominion Engrg Wks.	Rockfield, Que.	10–42	160	...	3	25	DB	UF (76							
Hamilton By-Product Coke	Hamilton, Ont.	6–42	160	565	1	15	BW	TG (83)							
Victoria Hospital	Halifax, N. S.	1946	160	Sat	2	18	DB	C							
150 PSI AND BELOW															
Alberta Provincial Govt	Oliver, Alta	12–41	150	366	1	20	BWG	TG (77)						45	0 55
Alberta, University of	Edmonton, Alta	2–45	150	Sat	2	18	FW	G						98	
J A Y Bouchard, Inc	Quebec City, Que	9–45	150	Sat	2	9	CB	O						27	
Canadian Copper Refiners	Montreal East, Que	....	150	420	1	40	VK	O						150	
Canadian Vickers Ltd	Cartierville, Que	8–44	150	366	1	10	CV	UF (42						30	
Donnacona Paper Co	Donnacona, Que	5–46	150	366	1	65	DB	Elec						360	
International Harvester Co	Hamilton, Ont	4–46	150	441	3	40	FW	SS (110						120	1 0
J Lewis & Sons, Ltd	Truro, N. S	...	150	500	1	33	BWG	TG (124)						51	
National Steel Car Corp	Hamilton, Ont	1941	150	366	2	25	BW	UF (87						71	
N M C Dockyard	Halifax, N S	9–43	150	358	3	30	VK	UF (110)						90	
Nova Scotia Lt & Pwr Co	Halifax, N. S	1942	150	500	1	35	BWG	TG (123							5
Proctor & Gamble Co	Hamilton, Ont	.....	150	Sat	2	40	BWG	TG (135)							
Swift Canadian Co	Edmonton, Alta	7–42	150	360	..	45	BWG	G						80	
Canadian Durex Abrasives	Brantford, Ont	10–42	148	Sat	2	11	BWG	UF (40)						22	
Gypsum Lime & Alabastine Co	Caledonia, Ont	...	145	360	2	30	CE	UF (66)						50	
National Defense Dept	Halifax, N S	10–42	145	363	2	35	BW	.....						85	
		10–42	145	363	1	15	BW								
Canadian General Elec Co	Toronto, Ont.	1941	140	Sat	2	25	BWG	TG (98)						45	
Canadian Industries, Ltd	Brownsburg, Que	1943	140	450	1	25	VK	UF (77)						....	
Canadian Westinghouse, Lt	Hamilton, Ont	12–41	135	358	2	60	FW	UF (108						120	
Consumers Gas Co	Toronto, Ont.	1945	130	430	5	25	DB	TG (126						75	
Sunnybrook Hospital	Toronto, Ont.	11–45	130	350	3	30	FW	UF (92	0 128	3750	BW	6		90	0 128
Canadian Raybestos, Ltd	Peterborough, Ont	1–46	125	350	1	10	FW	O						18	
Dominion Forge & Stamping Co	Walkerville, Ont	7–43	125	...	2	14	FW	SS (53)						60	
Dryden Paper Co, Ltd	Dryden, Ont	7–45	125	353	1	50	CE	BL						170	
		2–43	125	353	1	30	LS	SS (96							
W & A Gilbey, Ltd	New Toronto, Ont	12–43	125	350	1	6.2	BW	O						12.4	
Imperial Leaf Tobacco Co	Aylmer, Ont	11–46	125	...	2	5	FW	O						9 0	
Royal Alexandra Hospital	Edmonton, Alta	11–46	125	353	3	10	FW	G	0 25	3600	K	20	0	30	0 25
Toronto, University of	Ajax, Ont	1–46	125	460	5	25	CV	UF (77						125	
Electric Reduction Co	Buckingham, Que	1941	120	Sat	1	20	FW	UF (65)						75	
		1945	120	Sat	1	40	FW	UF (149							
H J Heinz Co of Canada	Wallaceburg, Ont	8–44	120	Sat	3	46	BWG	TG (130						138	
Federal Wire & Cable Co.	Guelph, Ont.	5–46	110	Sat	1	10	FW	UF						12	
Fry-Cadbury, Ltd	Montreal, Que	.....	100	...	1	12	FW	O						18	
Laurentian Sanitorium	Ste Agathe des Monts, Que	1942	100	Sat	1	14	DB	C							

TABLE OF SYMBOLS AND ABBREVIATIONS

AC —Allis-Chalmers Mfg Co
BI —Bigelow Boiler Co
BL —Black liquor
BW —Babcock & Wilcox Co
BWG —Babcock-Wilcox & Goldie-McCulloch, Ltd
C —Coal, bituminous
CA —Coal, anthracite
CB —Coke Breeze
CE —Combustion Engineering Co
CG —Chain grate
CV —Canadian Vickers Co. Ltd
DB —Dominion Bridge Co. Ltd
EC —Erie City Iron Works
El —Elliott Co
Elec —Electric Boiler
EM —Edge Moor Iron Works
FW —Foster Wheeler Corp
G —Gas
GE —General Electric Co
HB —Heine Boiler Co
IB —International Boiler Co
K —Kerr Turbine Co
KB —Kewanee Boiler Co
KE —Keeler Boiler Co
L —Lignite
LI —Llewellyn Iron Wks
LS —E Leonard & Sons, Ltd
MS —Moore Steam Turbine Div
O —Oil
OW —Oil Well Supply Co
P —Pulverized-fuel firing
RS —Riley Stoker Corp
SS —Spreader stoker
TG —Traveling grate
UF —Underfeed stoker
UI —Union Iron Works
VK —Vickers Keeler
Vo —Henry Vogt Machine Co
W —Wood waste
(50) —Stoker grate area, sq ft