

CRITICAL MATERIAL LISTS FOR FPFA
STANDARD DORMITORY PROJECT FACILITY BUILDINGS
AND FOR CAFETERIA EQUIPMENT .

METALS

See Also Supplement No. 1, July 1, 1943

Paint Material

As Approved by WPB

NATIONAL HOUSING AGENCY

U.S. ~~FEDERAL PUBLIC HOUSING AUTHORITY~~

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I N D E X

<u>List Number</u>	<u>Building</u>	<u>Building Number</u>
*15	Cafeteria	2100 1500 1000 650 400 250 175 (125) 75
16	Infirmary (with dental office) (no dental office) (with dental office) (no dental office)	2100 2100 1500 1500 1000 650
17	Tenant (morale) Activities	2100 1500 1000 650 400 250
*18	Management and Maintenance	2100 1500 1000 650 400 250
	(With Cafeteria)	150
	(No Cafeteria)	150
	(With Cafeteria)	75
	(No Cafeteria)	75

*Where the suffix 'E' appears in the list numbers,
the list covers the kitchen equipment required for
the respective buildings.

INDEX OF VARIATION LETTERS
PROJECT FACILITIES - DORMITORIES

The variation letters employed throughout this Critical Material List indicate the following:

GROUP I:

- Variation A: Coal Space Heating ± 15 or ± 20 degrees design temperature;
Coal Water Heating
- Variation B: Coal Space Heating ± 10 degrees design temperature;
Coal Water Heating
- Variation C: Coal Space Heating 0 degrees design temperature;
Coal Water Heating
- Variation D: Coal Space Heating -10 or -20 degrees design temperature;
Coal Water Heating
- Variation E: Oil Space Heating ± 15 or ± 20 degrees design temperature;
Oil Water Heating
- Variation F: Oil Space Heating ± 10 degrees design temperature;
Oil Water Heating
- Variation G: Oil Space Heating 0 degrees design temperature;
Oil Water Heating
- Variation H: Oil Space Heating -10 or -20 degrees design temperature;
Oil Water Heating
- Variation I: Gas Space Heating ± 15 or ± 20 degrees design temperature;
Gas Water Heating
- Variation K: Gas Space Heating ± 10 degrees design temperature;
Gas Water Heating
- Variation L: Gas Space Heating 0 degrees design temperature;
Gas Water Heating
- Variation M: Gas Space Heating -10 or -20 degrees design temperature;
Gas Water Heating

GROUP II:

- Variation U: Gas Fired Kitchen Equipment, Gas Piping
- Variation V: Coal Fired Steam System, Kitchen Equipment
- Variation W: Oil Fired Steam System, Kitchen Equipment

The complete working list for each project shall include all of the unmarked items and applicable variation items as selected to conform with type of fuel desired.

In addition to variations listed above, the working list for each particular project shall include the necessary ranges, broilers, pastry stoves, ovens, toasters, etc., for cafeterias, as selected from the variants listed in the Critical Material Lists.

POSSIBLE COMBINATIONS OF VARIATIONS

Project Facilities - Dormitories

Building	Space Heating	Water Heating	Gas Piping	Kitchen Equipment	Steam System	Ranges, Etc.	Toasters Etc.
Cafeterias and M & M Buildings with Cafeterias	A	A		V	V	Coal	Electric
	C	C		V	V	Coal	Electric
	D	D		V	V	Coal	Electric
	A	A	U	U	-	Gas	Gas
	C	C	U	U	-	Gas	Gas
	D	D	U	U	-	Gas	Gas
	E	E		W	W	Coal	Electric
	G	G		W	W	Coal	Electric
	H	H		W	W	Coal	Electric
	E	E	U	U	-	Gas	Gas
	G	G	U	U	-	Gas	Gas
	H	H	U	U	-	Gas	Gas
	I	U	U	U	-	Gas	Gas
	L	U	U	U	-	Gas	Gas
	M	U	U	U	-	Gas	Gas
Infirmaries	A	A					
	B	B					
	C	C					
	D	D					
	E	E					
	F	F					
	G	G					
	H	H					
	I	I	U				
	K	K	U				
	L	L	U				
	M	M	U				
Morale Activities & M&M Buildings without Cafeterias	A	A					
	C	C					
	D	D					
	E	E					
	G	G					
	H	H					
	I	I	U				
	L	L	U				
	M	M	U				

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (2100)
Heating System: Forced Warm Air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate material classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf 2155	280	Steel 252.0, zinc 28.0
260		Sheet metal, flashings, chimney only (If lead flashing is used the total of 29lbs. will change to.....)		29	Steel 27.5, zinc 1.5
280		Glazing points		155	Lead 155)
290		Builders hardware		8	Zinc 8
		Doors - outside	no. 14		
		Doors - inside	no. 39		
		Windows	no. 190		
		Exit bolts	no. 10		
		Fire door	no. 1		
		Door closers	no. 16		
		Misc.(cab. & locker hardware)	no. 104		
		Total builders hardware		646	Steel 613, brass 33
		Rough hardware*			
		Nails, screws, etc.			
		Plain		5553	Steel 5553
		Galvanized		379	Steel 360, zinc 19
		*Under Rough Hardware, 85% of Steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 400A-4P-3B-SN	no. 1	175	Steel 150, Copper 25
		Panelboards:			
		1P-30A circuits	no. 81	182	Steel 162, copper 20
		2P-30A circuits	no. 14	63	Steel 56, copper 7
		3P-30A circuits	no. 5	34	Steel 30, copper 4
		3P-60A circuits	no. 5	48	Steel 43, copper 5
		3P-100A circuits	no. 3	61.5	Steel 54, copper 7.5
		(If electric deep fat fryer is omitted, deduct the following:			
		3P-100A circuits	no. 1	20.5	Steel 18, copper 2.5
330		Conductors (equiv.1f.single wire)			
		#14 wire	1f.11950	153	Copper 153
		#12 wire	1f. 2670	53	Copper 53
		#8 wire	1f. 900	45	Copper 45
		*#4 wire	1f. 210	27	Copper 27
		*#1 wire	1f. 620	159	Copper 159
		*#0000 wire	1f. 200	128	Copper 128
		(If electric deep fat fryer is omitted, deduct items marked thus (*), and substitute the following:			
		#4 wire	1f. 620	78	Copper 78
		#000 wire	1f. 200	102	Copper 102)
340		Outlet Boxes (non-metallic)	no. 349		
350		Switches	no. 37	7.4	Steel 3.7, copper 3.7

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
360		Receptacles	no. 32	6.4	Steel 3.2, copper 3.2
370		Straps, Misc.		30	Steel 30
380		Solder		8	Solder 8
		Fixtures	no. 280	112	Steel 84, cu. 28
400		PLUMBING			
420		Fixtures (nonmetallic) 8 w.c., 2 ur., 9 lavs., & 1 serv. sink	no. 20		
		Trim for above fixtures & 11 sinks	no. 31	421	CI. 362, St. 25, Br. 31, Ru. 3
470		CI pipe & fittings, size 4"	lf. 160		
		size 3"	lf. 155		
		size 2"	lf. 580		
		Subtotal pipe & fittings	lf. 895	7162	CI. 7162
		Galv. steel pipe & fittings			
		size 2"	lf. 50		
		size 1½"	lf. 170		
		Size 1¼"	lf. 290		
		Subtotal steel pipe & ftgs. (If lead is used for rough- ing make-up of waste pipe, the total of 1320 lbs. will change to.)	lf. 510	1320	CI. 156, Steel 1110, Zinc 54
				1505	CI. 184, steel 955, Zinc 46, Lead 320)
		Calking and flashing lead		1765	Lead 1765
		Misc. hangers, etc.		218	CI. 25, Steel 193
440		Galv. water pipe & fittings			
		size 3"	lf. 20		
		size 2½"	lf. 55		
		size 2"	lf. 130		
		Size 1½"	lf. 35		
		size 1"	lf. 180		
		Subtotal pipe & fittings	lf. 420	1572	CI. 160, Stl. 1344, Zinc 68
		size ¾"	lf. 320		
		size 1/2"	lf. 986		
		size 3/8"	lf. 85		
		Subtotal pipe & fittings	lf. 1391	1610	CI. 225, Stl. 1320, Zinc 65
		Misc. hangers, etc		210	CI. 25, Steel 185
		Valves and cocks	no. 32	130	CI. 44, Brass 86
450		Water heaters			
	ACD	500 GPH/100 deg. rise coal htr.	no. 1	3200	CI. 3200
	U	500 GPH/100 deg. rise gas htr.	no. 1	2350	CI. 2250, Stl. 95, Br. 5
	EGH	500 GPH/100 deg. rise oil htr.	no. 1	3450	CI. 3400, Stl. 38, Cu. 12
		750 gallon storage tank	no. 1	1300	Steel 1300
		Flue pipe, 20 gauge		100	Steel 100
	VW	Booster heaters (steam) with accessories	no. 2	200	CI. 6, Stl. 180, Br. 4, Zn. 10
	U	Booster heaters (gas fired) with accessories	no. 2	212	CI. 18, Stl. 180, Br. 4, Zn. 10
460		Control Equipment			
		pressure relief valve	no. 1	1	Brass 1
		temperature relief valve	no. 1	1	Brass 1
		thermometer	no. 1	2	CI. 1, Brass 1
	ACD	Auto, damper regulator	no. 1	11	CI. 7, Stl. 3, Brass 1
480	U	Black gas pipe & fittings			
		size 3"	lf. 95		
		size 2-1/2"	lf. 45		
		size 2"	lf. 110		
		size 1-1/2"	lf. 120		
		size 1"	lf. 120		
		size 3/4"	lf. 95		
		Subtotal pipe & fittings	lf. 585	2305	CI. 190, Stl. 2115

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
480	U U	Misc. hangers, etc Valves and cocks	no. 21	105 81	CI. 15, Steel 90 Brass 81
Where Cafeteria and Trading Post are adjacent to Morale Activities Building, deduct the following critical materials and weights for toilet facilities from items shown:					
420		Fixtures, nonmetallic, 3 W. C. & 4 Lavs.	no. 7		
		Trim for above fixtures	no. 7	85.4	CI 73 Stl 6 Br 4.4 Ru 2
430		CI pipe & fittings, size 3"	lf. 35	280	CI 280
		Galv. steel pipe, size 1-1/4"	lf. 10	23	Steel 22, zinc 1
		Calking and flashing lead		80	Lead 80
		Misc. hangers, etc.		15	CI 5, steel 10
440		Galv. water pipe & fittings			
		Size 3/4"	lf. 30		
		Size 1/2"	lf. 40		
		Size 3/8"	lf. 25		
		Subtotal pipe & fittings	lf. 95	95	Steel 72, CI 18, zinc 5
		Misc. hangers, etc.		15	CI 5, steel 10
		Valves and cocks	no. 2	3	Brass 3
500		HEATING			
530		Warm Air Furnaces			
	A	1/15° coal 840,000 Btu	no. 1	7730	CI 7080, steel 650
	C	0° coal 1,070,000 Btu	no. 1	9400	CI 8600, steel 800
	D	-20° coal 1,178,000 Btu	no. 1	10375	CI 9500, steel 875
	HI	1/15° oil or gas 840,000 Btu	no. 1	7410	CI 6760, steel 650
	GL	0° oil or gas 1,070,000 Btu	no. 1	9020	CI 8220, steel 800
	HM	-20° oil or gas 1,178,000 Btu	no. 1	9925	CI 9050, steel 875
		Blower, 12,800 CFM	no. 1	640	CI 40, steel 600
		Motor 3 HP with controls	no. 1	125	CI 47, Stl 47 CU 25 Ins 6
		Multiblade exhaust fan 4800 CFM	no. 1	575	CI 60, steel 515
		Motor 1 HP with controls	no. 1	80	CI 30 stl 30 Cu 16 Ins 4
		Multiblade exhaust fan 1800 CFM	no. 2	400	CI 40, steel 360
		Motor 1/2 HP with controls	no. 2	100	CI 38 Stl 38 Cu 20 Ins 4
		Ducts, metal allowed for ftgs. fastenings, hangers, etc.			
		3 l.f. at furnace & relief duct		1725	Steel 1725
		Exhaust duct, metal allowed		1120	Steel 1120
		Registers and grilles	no. 17	94	Steel 94
		Ceiling diffusers	no. 14	56	Steel 56
550		Firing Equipment			
	E	1/15° oil burner 9 GPH	no. 1	250	CI 200 steel 38 copper 12
	G	0° oil burner 11 GPH	no. 1	300	CI 240 steel 45 copper 15
	H	-20° oil burner 13 GPH	no. 1	300	CI 240 steel 45 copper 15
	I	1/15° gas burner 1,344,000 Btu input	no. 1	488	CI 429 steel 49 copper 10
	L	0° gas burner 1,568,000 Btu input	no. 1	595	CI 524 steel 60 copper 11
	M	-20° gas burner 1,792,000 Btu input	no. 1	634	CI 559 steel 63 copper 12
	EGH	Vent. fill, 3/4" oil line piping & fittings	lf. 120	247	CI 18 steel 219 brass 10
	EGH	Reinforcement for 6000 gallon oil tank		90	Steel 90
560		Control Equipment			
		Relay	no. 1	7	Steel, 6, copper 1
		Damper regulator	no. 4	42	Steel 37, copper 5
		Thermostat	no. 7	18	Steel 14, copper 4

Crit. List No.	Var.	Critical Material PER BUILDING	Dim or No.	Total Wts. Lbs.	Composition of Weights lbs.
560		Breeching-flue conn. 20" dia.	lf. 20	281	Steel 281
		15 POUNDS STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
540		Boiler-Steam System---with trimmings			
	V	Coal 4600 sf net IBR steam	no. 1	7948	CI 7938, copper 10
	W	Oil 4600 sf net IBR steam	no. 1	7226	CI 7216, copper 10
	VW	Black steel pipe & fittings			
		3" dia.	lf. 60	552	CI 92, <u>steel 460</u>
		2-1/2" dia.	lf. 60	540	CI 90, <u>steel 450</u>
		2" dia.	lf. 50	240	CI 40, <u>steel 200</u>
		1-1/2" dia.	lf. 100	330	CI 55, <u>steel 275</u>
		1" dia.	lf. 150	300	CI 50, <u>steel 250</u>
		3/4" dia.	lf. 188	264	CI 44, <u>steel 220</u>
	VW	Black WI pipe & fittings			
		2" dia.	lf. 100	444	CI 74, <u>WI 370</u>
		1-1/2" dia.	lf. 50	168	CI 28, <u>WI 140</u>
		1" dia.	lf. 150	246	CI 41, <u>WI 205</u>
		3/4" dia.	lf. 100	144	CI 24, <u>WI 120</u>
		1/2" dia.	lf. 40	41	CI 7, <u>WI 34</u>
	VW	Valves and traps	no. 44	166	CI 83, <u>copper 83</u>
	VW	Misc. hangers, etc.		100	CI 30, <u>steel 70</u>
	VW	Cond. pump 4 GPM @ 20# discharge pressure	no. 1	500	CI 200 Stl 276 Cu 20 Ru 4
550		Firing equipment - boiler			
	W	Oil burner GPH 13	no. 1	300	CI 240 Stl 45 Cu 15
	W	Oil lines 3/4"	lf. 40	45	<u>Steel 45</u>
	W	Oil fittings & valves 3/4"		15	<u>CI 10, brass 5</u>
560	VW	Boiler water level controller	no. 1	32	CI 25, <u>brass 7</u>
570	VW	Breeching-flue conn. 18" dia.	lf. 20	250	Steel 250
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		Structure -Constant		5026	Steel 5026
		Electrical-with fryer		565	Copper 565
		Electrical-without fryer		431	Copper 431
		Plumbing -Constant			
		when bldg. is separate		3774	Steel 3774
		when bldg. adjoins			
		M.A. Bldg.		3680	Steel 3680
		Var U		2115	Steel 2115
		Heating -Constant		2845	Steel 2845
		Var EGH		309	Steel 309
		Steam System-Var. V		2724	Steel & WI 2724
		Var. W		2769	Steel & WI 2769

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities

Building: Cafeteria (2100)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment and numbers on drawings.			
640		HOUSEHOLD EQUIPMENT			
650		Incinerator-disposal rate 600 lb.	no. 1	3850	CI 1600, steel 2250
		(1) Refrigerators - meat	no. 1	1007	CI 125 Steel 840 Zn 42
		(1) Refrigerators - veg. & dairy	no. 1	696	CI 35 Steel 630 Zn 31
		(1) Refrigerators - baker	no. 1	242	CI 35 Steel 388 Zn 19
		(1) Refrigerators - ice	no. 1	299	CI 35 Steel 252 Zn 12
		(1) Refrigerators - garbage	no. 1	287	CI 35 Steel 240 Zn 12
		(2) Refrigeration Compressors, Cooling Units & Accessories (Comp. Motors 1 HP, 1 1/2 HP & 2HP)		1660)	Stl 1103 CI 290 Cu 197 Zinc 70
		(3) Peeler	no. 1	562	CI 540 Stl 15 Br 6 Zn 1
		(4) Sink veg.	no. 1	130	CI 4 Steel 120 Zn 6
		(6) Sink butcher	no. 1	150	CI 4 Steel 140 Zn 6
		(9) Meat cutter	no. 1	356	CI 350 Brass 6
		(10) Fish box	no. 1	200	CI 16 Steel 176 Zn 8
		(10) Fish sink	no. 1	88	CI 2 Steel 82 Zn 4
VW		(11) Kettles - steam	no. 3	792	CI 690 Stl 90 Br 6 Zn 6
U		(11) Kettles - gas	no. 3	852	CI 750 Stl 90 Br 6 Zn 6
VW		(12) Steamer - steam	no. 2	1988	CI 1900 Stl 80 Br 4 Zn 4
U		(12) Steamer - gas	no. 2	2048	CI 1960 Stl 80 Br 4 Zn 4
	*	(13) Ranges - coal	no. 4	3840	CI 3040 Steel 800
	*	(13) Ranges - gas	no. 4	4296	CI 3496 Steel 800
	*	(13A) Fryer - Elec. 12 KW.	no. 1	125	Stl 115, Cu 6 Nich 4
	*	(13A) Fryer - gas	no. 1	650	CI 300 Steel 350
		(14A) Hood and smoke pipe for ranges, broilers, steamer, kettle	no. 1	720	CI 50 Steel 670
		(14B) Hood and smoke pipe for baker oven & pastry stove	no. 1	225	CI 15 Steel 210
		(14C) Hood for dishwasher	no. 1	135	CI 10 Steel 125
		(15) Cook table sink	no. 1	68	CI 2 Steel 63 Zinc 3
VW		(15) Bain marie - steam	no. 1	217	CI 6 Steel 204 Zn 7
U		(15) Bain marie - gas	no. 1	197	CI 6 Steel 184 Zn 7
		(15A) Pot rack hooks	no. 1	37	Steel 36 Zinc 1
		(16) Work table sink	no. 1	68	CI 2 Steel 63 Zinc 3
		(17) Sandwich table sink	no. 1	68	CI 2 Steel 63 Zinc 3
		(18) Salad refrigerator	no. 1	290	CI 80 Steel 200 Zinc 10
		(19) Salad sink	no. 1	86	CI 2 Steel 80 Zinc 4
		(20) Baker table	no. 1	31	Steel 30 Zinc 1
		(21) Mixer - large	no. 2	2618	CI 2200 Stl 400 Br 12 Zn 6
		(22) Baker sink	no. 1	92	CI 2 Steel 85 Zinc 5
	*	(24) Baker pastry stove - coal	no. 1	60	CI 40 Steel 20
	*	(24) Baker pastry stove - gas	no. 1	175	CI 155 Steel 20
	*	(25) Baker ovens - coal	no. 2	1700	CI 660 Steel 1040
	*	(25) Baker ovens - gas	no. 2	1964	CI 924 Steel 1040
		(26) Pot sink	no. 1	152	CI 4 Steel 141 Zinc 7
		(27) Clean dish table	no. 1	168	Steel 160 Zinc 8
VW		(28) Dishwashing machine - steam	no. 2	2116	CI 748 Stl 1256 Br 50 Cu 18 Zn 44
U		(28) Dishwashing machine - gas	no. 2	2176	CI 808 Stl 1256 Br 50 Cu 18 Zn 44
		(29) Soiled dish table, sink, swill sink and hopper	no. 1	379	Steel 360 Zinc 19

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
650 Cont.	VW U	(30) Glass washing machine-steam	no. 1	750	CI 51 Stl 668 Br 1 Zn 30
		(30) Glass wasning machine-gas	no. 1	770	CI 71 Stl 668 Br 1 Zn 30
		(31) Clean glass table	no. 1	73	Steel 70 Zinc 3
		(32) Slicer sandwich-table	no. 1	102	CI 75 Steel 25 Brass 2
		(33) Urn stand	no. 2	112	Steel 107 Zinc 5
		(34) Ice cream cab.	no. 1	285	CI 80 Steel 200 Brass 5
		(34A) Disner vat	no. 1	11	Steel 10 Zinc 1
		(35) Water cooler	no. 2	320	Stl 293 Brass 10 Zinc 17
		(37) Sink, backcounter	no. 1	43	Steel 41 Zinc 2
		(38) Griddle	no. 1	175	CI 155 Steel 15 Cu 5
		(39) Refrigerator & comp.	no. 1	260	CI 80 Stl 170 Br 2 Zn 8
		(40B) Salad pan	no. 2	232	Steel 220 Zinc 12
	VW	(40D) Steam table - steam	no. 2	682	Steel 648 Zinc 34
	U	(40D) Steam table - gas	no. 1	662	Steel 628 Zinc 34
		(40F) Dessert pan	no. 2	340	Steel 322 Zinc 18
		(40H) Bottled goods	no. 2	180	Steel 170 Zinc 10
	VW	(41) Urns - steam	no. 6	255	Steel 180 Brass 70 Tin 5
	U	(41) Urns - gas	no. 6	225	Steel 150 Brass 70 Tin 5
		Dish truck	no. 2	60	CI 60
	*	Toaster - gas	no. 2	210	Steel 200 Cu 4 Zn 6
	*	Toaster - electric	no. 2	250	Steel 234 Cu 10 Zn 6
	* From items marked thus, use equipment to conform with fuel selected.				

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (1500)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 1814	236	Steel 212 Zinc 24
260		Sheet metal, flashings, chimney only (If lead flashing is used the total of 29 lbs. will change to.		29	Steel 27.5 Zinc 1.5
280		Glazing points		155	Lead 155)
290		Builders Hardware		6.7	Zinc 6.7
		Doors - outside	no. 14		
		Doors - inside, inc.1 slat door	no. 39		
		Windows	no. 158		
		Exit bolts	no. 10		
		Fire door	no. 1		
		Door closers	no. 16		
		Misc. (cab. & locker hardware)	no. 104		
		Total builders' hardware		631	Steel 598.6 Brass 32.4
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		4925	Steel 4925
		Galvanized		336	Steel 319.2 Zinc 16.8
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 400A-4P-3B-SN	no. 1	175	Steel 150 Copper 25
		Panelboards:-			
		1P - 30A circuits	no. 77	173	Steel 154 Copper 19
		2P - 30A "	no. 14	63	Steel 56 Copper 7
		3P - 30A "	no. 5	34	Steel 30 Copper 4
		3P - 60A "	no. 5	48	Steel 43 Copper 5
		3P - 100A "	no. 3	61.5	Steel 54 Copper 7.5
		If Electric Deep Fat Fryer is omitted, deduct the following:-			
		3P - 100A circuit	no. 1	20.5	Steel 18 Copper 2.5
330		Conductors, (equiv.1f.single wire)			
		#14 Wire	1f.11341	145.7	Copper 145.7
		#12 "	1f. 2670	53	Copper 53
		# 8 "	1f. 900	45	Copper 45
		(*) # 4 "	1f. 210	27	Copper 27
		(*) # 1 "	1f. 620	159	Copper 159
		(*) #0000 Wire	1f. 200	128	Copper 128
		If Electric deep Fat Fryer is omitted, deduct items marked thus (*), and substitute the following:-			
		# 4 Wire	1f. 620	78	Copper 78
		#000 Wire	1f. 200	102	Copper 102

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
340		Outlet boxes (non-metallic)	no. 315		
350		Switches	no. 37	7.4	Steel 3.7 Copper 3.7
		Receptacles	no. 30	6.0	Steel 3.0 Copper 3.0
360		Straps, misc.		28	Steel 28
370		Solder		8	Solder 8
380		Fixtures	no. 248	99	Steel 74 Copper 25
400		PLUMBING For all plumbing items, including deductions when Cafeteria Bldg. adjoins Morale Activities Bldg., refer to List No. 15 - 2100.			
500		HEATING			
530		Warm Air Furnaces			
	A	415° coal 720,000 Btu	no. 1	5900	CI 5340 Steel 560
	C	0° coal 900,000 Btu	no. 1	7730	CI 7080 Steel 650
	D	-20° coal 990,000 Btu	no. 1	9400	CI 8600 Steel 800
	EI	415° oil or coal 720,000 Btu	no. 1	5625	CI 5065 Steel 560
	GL	0° oil or coal 900,000 Btu	no. 1	7410	CI 6760 Steel 650
	HM	-20° oil or coal 990,000 Btu	no. 1	9020	CI 8220 Steel 800
		Blower 11,200 CFM	no. 1	640	CI 40 Steel 600
		Motor 3 HP with Controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Multiblade type exhaust fan 4800 CFM	no. 1	575	CI 60 Steel 515
		Motor 1 HP with Controls	no. 1	80	CI 30 Stl 30 Cu 16 Ins 4
		Multiblade type exhaust fan 1800 CFM	no. 2	400	CI 40, Steel 360
		Motor 1/2 HP with Controls	no. 2	100	CI 38 Stl 38 Cu 20 Ins 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, & relief duct.		1531	Steel 1531
		Exhaust duct, metal allowed		1120	Steel 1120
		Registers & grilles	no. 16	90	Steel 90
		Ceiling diffusers	no. 10	40	Steel 40
550		Firing Equipment			
	E	415° oil burner 8 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	G	0° oil burner 9 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 11 GPH	no. 1	300	CI 240 Stl 45 Cu 15
	I	415° gas burner 1,120,000 Btu Input	no. 1	451	CI 397 Stl 46 Cu 8
	L	0° gas burner 1,344,000 Btu Input	no. 1	488	CI 429 Stl 49 Cu 10
	M	-20° gas burner 1,568,000 Btu Input	no. 1	595	CI 524 Stl 60 Cu 11
	EGH	Vent, fill, 3/4" oil line piping & fittings	lf. 120	247	CI 18 <u>Stl 219</u> Br 10
	EGH	Reinforcement for 6000 gal. oil tank		90	<u>Steel 90</u>
560		Control Equipment			
		Relay	no. 1	7	Steel 6 Copper 1
		Damper regulator	no. 4	42	Steel 37 Copper 5
		Thermostat	no. 7	18	Steel 14 Copper 4
570		Breeching, flue conn. 18" dia.	lf. 20	254	Steel 254
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT			

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540		(For these items, refer to			
550		(List No. 15 - 2100 under the			
560		(heading of "15 Pounds Pressure			
570		(Steam System for Kitchen			
		(Equipment"			
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE -Constant		4458	Steel 4458
		ELECTRICAL-With Fryer		557.7	Copper 557.7
		Without Fryer		423.7	Copper 423.7
		PLUMBING -Constant			
		(When Bldg. is separate)		3774	Steel 3774
		(When Bldg. adjoins M.A. Bldg.)		3680	Steel 3680
		Var. U		2115	Steel 2115
		HEATING -Constant		2651	Steel 2651
		Var. EGH		309	Steel 309
		STEAM SYSTEM- Var. V		2724	Steel & W.I. 2724
		Var. W		2769	Steel & W.I. 2769

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building Cafeteria (1500)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or. No.	Total Wts. Lbs.	Composition of Weights Lbs.
600 640 650		HOUSEHOLD EQUIPMENT Incinerator-disposal rate 400 lb. For this item refer to List No. 15E- 2100	no. 1	3350	CI 1500, steel 1850

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (1000)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 1388	180	Steel 162.0, zinc 18.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 29 lbs. will change to)		29	Steel 27.5, zinc 1.5
280		Glazing points		155	Lead 155)
290		Builders Hardware		5	Zinc 5
		Doors - outside	no. 12		
		Doors - inside	no. 30		
		Windows	no. 122		
		Exit bolts	no. 8		
		Fire Door	no. 2		
		Door closers	no. 12		
		Misc. (cab. & locker hardware	no. 21		
		Total builders' hardware		524	Steel 498, brass 26
		Rough Hardware *			
		Nails, screws, etc.			
		Plain		2980	Steel 2980
		Galvanized		204	Steel 193.8, zinc 10.2
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 200A, 2B & SN	no. 1	42	Steel 32, copper 10
		Panelboards:			
		30A - 1P Circuits	no. 22	49.5	Steel 44, copper 5.5
		30A - 2P Circuits	no. 12	54	Steel 48, copper 6
		60A - 2P Circuits	no. 3	27	Steel 24, copper 3
		30A - 2P Circuits	no. 17	86.7	Steel 78.2, copper 8.5
		60A - 2P Circuits	no. 1	9.6	Steel 8.6, copper 1
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	lf. 7538	96	Copper 96
		#12 wire	lf. 717	14.4	Copper 14.4
		# 8 wire	lf. 374	18.9	Copper 18.9
		# 6 wire	lf. 900	71.6	Copper 71.6
		# 4 wire	lf. 210	26.6	Copper 26.6
		# 2 wire	lf. 120	24.2	Copper 24.2
		#00 wire	lf. 100	40.3	Copper 40.3
340		Outlet boxes (nonmetallic)	no. 197		
350		Switches	no. 23	4.6	Steel 2.3, copper 2.3
		Receptacles	no. 16	3.2	Steel 1.6, copper 1.6
360		Straps, misc.		17	Steel 17
370		Solder		4	
380		Fixtures	no. 158	63.4	Steel 47.4, copper 16
400		PLUMBING			
420		Fixtures - nonmetallic - 6W.C., 1 Urinal, 9 Lavs. & 1 Serv. Sink	no. 17		
		Trim for above fixtures & 10 Sinks	no. 27	325	CI 277, Stl 12, Br 29 Ru3

Crit. List No.	Var.	Critical Material PER BUILDING	Dim or No.	Total Wts. Lbs.	Composition of Weights lbs.
560		Breeching-flue conn. 20" dia.	lf. 20	281	Steel 281
		15 POUNDS STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
540		Boiler-Steam System---with trimmings			
	V	Coal 4600 sf net IBR steam	no. 1	7948	CI 7938, copper 10
	W	Oil 4600 sf net IBR steam	no. 1	7226	CI 7216, copper 10
	VW	Black steel pipe & fittings			
		3" dia.	lf. 60	552	CI 92, <u>steel 460</u>
		2-1/2" dia.	lf. 60	540	CI 90, <u>steel 450</u>
		2" dia.	lf. 50	240	CI 40, <u>steel 200</u>
		1-1/2" dia.	lf. 100	330	CI 55, <u>steel 275</u>
		1" dia.	lf. 150	300	CI 50, <u>steel 250</u>
		3/4" dia.	lf. 188	264	CI 44, <u>steel 220</u>
	VW	Black WI pipe & fittings			
		2" dia.	lf. 100	444	CI 74, <u>WI 370</u>
		1-1/2" dia.	lf. 50	168	CI 28, <u>WI 140</u>
		1" dia.	lf. 150	246	CI 41, <u>WI 205</u>
		3/4" dia.	lf. 100	144	CI 24, <u>WI 120</u>
		1/2" dia.	lf. 40	41	CI 7, <u>WI 34</u>
	VW	Valves and traps	no. 44	166	CI 83, copper 83
	VW	Misc. hangers, etc.		100	CI 30, steel 70
	VW	Cond. pump 4 GPM @ 20# discharge pressure	no. 1	500	CI 200 Stl 276 Cu 20 Ru 4
550		Firing equipment - boiler			
	W	Oil burner GPH 13	no. 1	300	CI 240 Stl 45 Cu 15
	W	Oil lines 3/4"	lf. 40	45	<u>Steel 45</u>
	W	Oil fittings & valves 3/4"		15	<u>CI 10, brass 5</u>
560	VW	Boiler water level controller	no. 1	32	CI 25, brass 7
570	VW	Breeching-flue conn. 18" dia.	lf. 20	250	Steel 250
		TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS			
		Structure -Constant		5026	Steel 5026
		Electrical-with fryer		565	Copper 565
		Electrical-without fryer		431	Copper 431
		Plumbing -Constant			
		when bldg. is separate		3774	Steel 3774
		when bldg. adjoins			
		M.A. Bldg.		3680	Steel 3680
		Var U		2115	Steel 2115
		Heating -Constant		2845	Steel 2845
		Var EGH		309	Steel 309
		Steam System-Var. V		2724	Steel & WI 2724
		Var. W		2769	Steel & WI 2769

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities

Building: Cafeteria (2100)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment and numbers on drawings.			
640		HOUSEHOLD EQUIPMENT			
650		Incinerator-disposal rate 600 lb.	no. 1	3850	CI 1600, steel 2250
		(1) Refrigerators - meat	no. 1	1007	CI 125 Steel 840 Zn 42
		(1) Refrigerators - veg. & dairy	no. 1	696	CI 35 Steel 630 Zn 31
		(1) Refrigerators - baker	no. 1	442	CI 35 Steel 388 Zn 19
		(1) Refrigerators - ice	no. 1	299	CI 35 Steel 252 Zn 12
		(1) Refrigerators - garbage	no. 1	287	CI 35 Steel 240 Zn 12
		(2) Refrigeration Compressors, Cooling Units & Accessories (Comp. Motors 1 HP, 1 1/2 HP & 2HP)		1660	Stl 1103 CI 290 Cu 197 Zinc 70
		(3) Fecder	no. 1	562	CI 540 Stl 15 Br 6 Zn 1
		(4) Sink veg.	no. 1	130	CI 4 Steel 120 Zn 6
		(6) Sink butcher	no. 1	150	CI 4 Steel 140 Zn 6
		(9) Meat cutter	no. 1	356	CI 350 Brass 6
		(10) Fish box	no. 1	200	CI 16 Steel 176 Zn 8
		(10) Fish sink	no. 1	85	CI 2 Steel 82 Zn 4
VW		(11) Kettles - steam	no. 3	732	CI 690 Stl 90 Br 6 Zn 6
U		(11) Kettles - gas	no. 3	852	CI 750 Stl 90 Br 6 Zn 6
VW		(12) Steamer - steam	no. 2	1988	CI 1900 Stl 80 Br 4 Zn 4
U		(12) Steamer - gas	no. 2	2048	CI 1960 Stl 80 Br 4 Zn 4
	*	(13) Ranges - coal	no. 4	3840	CI 3040 Steel 800
	*	(13) Ranges - gas	no. 4	4296	CI 3496 Steel 800
	*	(13A) Fryer - Elec. 12 KW.	no. 1	125	Stl 115, Cu 6 Nich 4
	*	(13A) Fryer - gas	no. 1	650	CI 300 Steel 350
		(14A) Hoods and smoke pipe for ranges, broilers, steamer, kettle	no. 1	720	CI 50 Steel 670
		(14B) Hood and smoke pipe for baker oven & pastry stove	no. 1	225	CI 15 Steel 210
		(14C) Hood for dishwasher	no. 1	135	CI 10 Steel 125
		(15) Cook table sink	no. 1	68	CI 2 Steel 63 Zinc 3
VW		(15) Bain marie - steam	no. 1	217	CI 6 Steel 204 Zn 7
U		(15) Bain marie - gas	no. 1	197	CI 6 Steel 184 Zn 7
		(15A) Pot rack hooks	no. 1	37	Steel 36 Zinc 1
		(16) Work table sink	no. 1	68	CI 2 Steel 63 Zinc 3
		(17) Sandwich table sink	no. 1	68	CI 2 Steel 63 Zinc 3
		(18) Salad refrigerator	no. 1	290	CI 80 Steel 200 Zinc 10
		(19) Salad sink	no. 1	86	CI 2 Steel 80 Zinc 4
		(20) Baker table	no. 1	31	Steel 30 Zinc 1
		(21) Mixer - large	no. 2	2618	CI 2200 Stl 400 Br 12 Zn 6
		(22) Baker sink	no. 1	92	CI 2 Steel 85 Zinc 5
	*	(24) Baker pastry stove - coal	no. 1	60	CI 40 Steel 20
	*	(24) Baker pastry stove - gas	no. 1	175	CI 156 Steel 20
	*	(25) Baker ovens - coal	no. 2	1700	CI 660 Steel 1040
	*	(25) Baker ovens - gas	no. 2	1964	CI 924 Steel 1040
		(26) Pot sink	no. 1	152	CI 4 Steel 141 Zinc 7
		(27) Clean dish table	no. 1	168	Steel 160 Zinc 8
VW		(28) Dishwashing machine - steam	no. 2	2116	CI 748 Stl 1256 Br 50 Cu 18 Zn 44
U		(28) Dishwashing machine - gas	no. 2	2176	CI 808 Stl 1256 Br 50 Cu 18 Zn 44
		(29) Soiled dish table, sink, swill sink and hopper	no. 1	379	Steel 360 Zinc 19

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
650	VW	(30) Glass washing machine-steam	no. 1	750	CI 51 Stl 668 Br 1 Zn 30
Cont.	U	(30) Glass washing machine-gas	no. 1	770	CI 71 Stl 668 Br 1 Zn 30
		(31) Clean glass table	no. 1	73	Steel 70 Zinc 3
		(32) Slicer sandwich-table	no. 1	102	CI 75 Steel 25 Brass 2
		(33) Urn stand	no. 2	112	Steel 107 Zinc 5
		(34) Ice cream cab.	no. 1	285	CI 80 Steel 200 Brass 5
		(34A) Disner vat	no. 1	11	Steel 10 Zinc 1
		(35) Water cooler	no. 2	320	Stl 293 Brass 10 Zinc 17
		(37) Sink, backcounter	no. 1	43	Steel 41 Zinc 2
		(38) Griddle	no. 1	175	CI 155 Steel 15 Cu 5
		(39) Refrigerator & comp.	no. 1	260	CI 80 Stl 170 Br 2 Zn 8
		(40B) Salad pan	no. 2	232	Steel 220 Zinc 12
	VW	(40D) Steam table - steam	no. 2	682	Steel 648 Zinc 34
	U	(40D) Steam table - gas	no. 1	662	Steel 628 Zinc 34
		(40F) Dessert pan	no. 2	340	Steel 322 Zinc 18
		(40H) Bottled goods	no. 2	160	Steel 170 Zinc 10
	VW	(41) Urns - steam	no. 6	255	Steel 180 Brass 70 Tin 5
	U	(41) Urns - gas	no. 6	225	Steel 150 Brass 70 Tin 5
		Dish truck	no. 2	60	CI 60
	*	Toaster - gas	no. 2	210	Steel 200 Cu 4 Zn 6
	*	Toaster - electric	no. 2	250	Steel 234 Cu 10 Zn 6
		* From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (1500)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 1814	236	Steel 212 Zinc 24
260		Sheet metal, flashings, chimney only (If lead flashing is used the total of 29 lbs. will change to.		29	Steel 27.5 Zinc 1.5
280		Glazing points		155	Lead 155)
290		Builders Hardware		6.7	Zinc 6.7
		Doors - outside	no. 14		
		Doors - inside, inc.1 slat door	no. 39		
		Windows	no. 158		
		Exit bolts	no. 10		
		Fire door	no. 1		
		Door closers	no. 16		
		Misc. (cab. & locker hardware)	no. 104		
		Total builders' hardware		631	Steel 598.6 Brass 32.4
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		4925	Steel 4925
		Galvanized		336	Steel 319.2 Zinc 16.8
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 400A-4P-3B-SN	no. 1	175	Steel 150 Copper 25
		Panelboards:-			
		1P - 30A circuits	no. 77	173	Steel 154 Copper 19
		2P - 30A "	no. 14	63	Steel 56 Copper 7
		3P - 30A "	no. 5	34	Steel 30 Copper 4
		3P - 60A "	no. 5	48	Steel 43 Copper 5
		3P - 100A "	no. 3	61.5	Steel 54 Copper 7.5
		If Electric Deep Fat Fryer is omitted, deduct the following:-			
		3P - 100A circuit	no. 1	20.5	Steel 18 Copper 2.5
330		Conductors, (equiv.1f.single wire)			
		#14 Wire	1f.11341	145.7	Copper 145.7
		#12 "	1f. 2670	53	Copper 53
		# 8 "	1f. 900	45	Copper 45
		(*) # 4 "	1f. 210	27	Copper 27
		(*) # 1 "	1f. 620	159	Copper 159
		(*) #0000 Wire	1f. 200	128	Copper 128
		If Electric deep Fat Fryer is omitted, deduct items marked thus (*), and substitute the following:-			
		# 4 Wire	1f. 620	78	Copper 78
		#000 Wire	1f. 200	102	Copper 102

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
340		Outlet boxes (non-metallic)	no. 315		
350		Switches	no. 37	7.4	Steel 3.7 Copper 3.7
		Receptacles	no. 30	6.0	Steel 3.0 Copper 3.0
360		Straps, misc.		28	Steel 28
370		Solder		8	Solder 8
380		Fixtures	no. 248	99	Steel 74 Copper 25
400		PLUMBING For all plumbing items, including deductions when Cafeteria Bldg. adjoins Morale Activities Bldg., refer to List No. 15 - 2100.			
500		HEATING			
530		Warm Air Furnaces			
	A	415° coal 720,000 Btu	no. 1	5900	CI 5340 Steel 560
	C	0° coal 900,000 Btu	no. 1	7730	CI 7080 Steel 650
	D	-20° coal 990,000 Btu	no. 1	9400	CI 8600 Steel 800
	EI	415° oil or coal 720,000 Btu	no. 1	5625	CI 5065 Steel 560
	GL	0° oil or coal 900,000 Btu	no. 1	7410	CI 6760 Steel 650
	HM	-20° oil or coal 990,000 Btu	no. 1	9020	CI 8220 Steel 800
		Blower 11,200 CFM	no. 1	640	CI 40 Steel 600
		Motor 3 HP with Controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Multiblade type exhaust fan 4800 CFM	no. 1	575	CI 60 Steel 515
		Motor 1 HP with Controls	no. 1	80	CI 30 Stl 30 Cu 16 Ins 4
		Multiblade type exhaust fan 1800 CFM	no. 2	400	CI 40, Steel 360
		Motor 1/2 HP with Controls	no. 2	100	CI 38 Stl 38 Cu 20 Ins 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, & relief duct.		1531	Steel 1531
		Exhaust duct, metal allowed		1120	Steel 1120
		Registers & grilles	no. 16	90	Steel 90
		Ceiling diffusers	no. 10	40	Steel 40
550		Firing Equipment			
	E	415° oil burner 8 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	G	0° oil burner 9 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 11 GPH	no. 1	300	CI 240 Stl 45 Cu 15
	I	415° gas burner 1,120,000 Btu Input	no. 1	451	CI 397 Stl 46 Cu 8
	L	0° gas burner 1,344,000 Btu Input	no. 1	488	CI 429 Stl 49 Cu 10
	M	-20° gas burner 1,568,000 Btu Input	no. 1	595	CI 524 Stl 60 Cu 11
	EGH	Vent, fill, 3/4" oil line piping & fittings	lf. 120	247	CI 18 Stl 219 Br 10
	EGH	Reinforcement for 6000 gal. oil tank		90	Steel 90
560		Control Equipment			
		Relay	no. 1	7	Steel 6 Copper 1
		Damper regulator	no. 4	42	Steel 37 Copper 5
		Thermostat	no. 7	18	Steel 14 Copper 4
570		Breeching, flue conn. 18" dia.	lf. 20	254	Steel 254
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT			

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540		(For these items, refer to (List No. 15 - 2100 under the (heading of "15 Pounds Pressure (Steam System for Kitchen (Equipment"			
550					
560					
570					
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE -Constant		4458	Steel 4458
		ELECTRICAL-With Fryer		557.7	Copper 557.7
		Without Fryer		423.7	Copper 423.7
		PLUMBING -Constant			
		(When Bldg. is separate)		3774	Steel 3774
		(When Bldg. adjoins M.A. Bldg.)		3680	Steel 3680
		Var. U		2115	Steel 2115
		HEATING -Constant		2651	Steel 2651
		Var. EGH		309	Steel 309
		STEAM SYSTEM- Var. V		2724	Steel & W.I. 2724
		Var. W		2769	Steel & W.I. 2769

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building Cafeteria (1500)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or. No.	Total Wts. Lbs.	Composition of Weights Lbs.
600 640 650		HOUSEHOLD EQUIPMENT Incinerator-disposal rate 400 lb. For this item refer to List No. 15E- 2100	no. 1	3350	CI 1500, steel 1850

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (1000)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 1388	180	Steel 162.0, zinc 18.0
260		Sheet metal, flashings, chimney only		29	Steel 27.5, zinc 1.5
		(If lead flashing is used, the total of 29 lbs. will change to)		155	Lead 155)
280		Glazing points		5	Zinc 5
290		Builders Hardware			
		Doors - outside	no. 12		
		Doors - inside	no. 30		
		Windows	no. 122		
		Exit bolts	no. 8		
		Fire Door	no. 2		
		Door closers	no. 12		
		Misc. (cab. & locker hardware	no. 21		
		Total builders' hardware		524	Steel 498, brass 26
		Rough Hardware *			
		Nails, screws, etc.			
		Plain		2980	Steel 2980
		Galvanized		204	Steel 193.8, zinc 10.2
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 200A, 2B & SN	no. 1	42	Steel 32, copper 10
		Panelboards:			
		30A - 1P Circuits	no. 22	49.5	Steel 44, copper 5.5
		30A - 2P Circuits	no. 12	54	Steel 48, copper 6
		60A - 2P Circuits	no. 3	27	Steel 24, copper 3
		30A - 2P Circuits	no. 17	86.7	Steel 78.2, copper 8.5
		60A - 2P Circuits	no. 1	9.6	Steel 8.6, copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 7538	96	Copper 96
		#12 wire	lf. 717	14.4	Copper 14.4
		# 8 wire	lf. 374	18.9	Copper 18.9
		# 6 wire	lf. 900	71.6	Copper 71.6
		# 4 wire	lf. 210	26.6	Copper 26.6
		# 2 wire	lf. 120	24.2	Copper 24.2
		#00 wire	lf. 100	40.3	Copper 40.3
340		Outlet boxes (nonmetallic)	no. 197		
350		Switches	no. 23	4.6	Steel 2.3, copper 2.3
		Receptacles	no. 16	3.2	Steel 1.6, copper 1.6
360		Straps, misc.		17	Steel 17
370		Solder		4	
380		Fixtures	no. 158	63.4	Steel 47.4, copper 16
400		PLUMBING			
420		Fixtures - nonmetallic - 6W.C., 1 Urinal, 9 Lavs. & 1 Serv. Sink	no. 17		
		Trim for above fixtures & 10 Sinks	no. 27	325	CI 277, Stl 12, Br 29 Ru3

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings size 4"	lf. 135		
		size 3"	lf. 165		
		size 2"	lf. 360	4675	CI 4675
		Subtotal pipe & fittings	lf. 660		
		Galv. steel pipe, size 2"	lf. 17		
		size 1-1/2"	lf. 120		
		size 1-1/4"	lf. 70		
		Subtotal steel pipe	lf. 207	715	CI 145, <u>Steel 541</u> , Zn 29
		(If lead is used for roughing make-up of waste pipe, the sub- total of 715 lbs. will change to		790	CI 165, Stl 408 Zn21 1d196)
		Calking & flashing lead		870	Lead 870
		Misc. hangers, etc.		110	CI 20, Steel 90
440		Galv. water pipe & fittings			
		Pipe size 3"	lf. 10		
		Pipe size 2"	lf. 90		
		Pipe size 1-1/2"	lf. 70		
		Pipe size 1-1/4"	lf. 60		
		Pipe size 1"	lf. 30		
		Subtotal pipe & fittings	lf. 260	880	CI 100 <u>Steel 740</u> Zn 40
		Pipe size 3/4"	lf. 345		
		Pipe size 1/2"	lf. 790		
		Pipe size 3/8"	lf. 30		
		Subtotal pipe & fittings	lf. 1165	1262	CI 72 <u>Steel 1140</u> Zn 50
		Misc. hangers, etc.		140	CI 10, <u>Steel 130</u>
		Valves and cocks	no. 15	117	Brass 73, CI 44
450		Water Heaters			
	ACD	350 GPH/100 deg. rise coal htr.	no. 1	2500	CI 2500
	U	350 GPH/100 deg. rise auto. gas heater	no. 1	1700	CI 1615, Stl 80 Br 5
	EGH	350 GPH/100 deg. rise auto. oil heater	no. 1	2655	CI 2624, Stl 23, Cu 8
		500 gallon storage tank	no. 1	900	Steel 900
	VW	Booster Heater (Steam) with accessories	no. 1	100	CI 3, Stl 90, Br 2 Zn 5
	U	Booster Heater (gas-fired) with accessories	no. 1	106	CI 9, Stl 90, Br 2, Zn 5
		Flue pipe, 20 ga.		100	Steel 100
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	2	CI 1, brass 1
	ACD	Auto. damper regulator	no. 1	11	CI 7, Stl 3, brass 1
480		Black gas pipe & fittings			
		Pipe size 3"	lf. 50		
		Pipe size 2-1/2"	lf. 25		
		Pipe size 2"	lf. 75		
		Pipe size 1-1/2"	lf. 10		
		Pipe size 1-1/4"	lf. 60		
		Pipe size 1"	lf. 65		
		Subtotal pipe & fittings	lf. 285	1060	<u>Steel 850</u> , CI 210
		Pipe size 3/4"	lf. 80		
		Pipe size 1/2"	lf. 30		
		Subtotal pipe & fittings	lf. 110	368	<u>Steel 300</u> , CI 68
	U	Misc. hangers, etc.		65	CI 15, Steel 50
	U	Valves and cocks	no. 19	67	Brass 67

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Where Cafeteria and Trading Post are adjacent to Morale Activities Building. deduct the following critical materials and weights for toilet facilities from items shown:			
420		Fixtures - nonmetallic - 3 W.C., and 4 Lavs.	no. 7		
		Trim for above fixtures	no. 7	85.4	CI 73 Stl 6 Br 4.4 Ru 2
430		CI pipe & fittings size 3"	lf. 35	280	CI 280
		Galv. steel pipe size 1-1/4"	lf. 10	23	Steel 22, zinc 1
		Calking and flashing lead		80	Lead 80
		Misc. hangers, etc.		15	CI 5, steel 10
440		Galv. water pipe & fittings Size 3/4"	lf. 30		
		Size 1/2"	lf. 40		
		Size 3/8"	lf. 25		
		Subtotal pipe & fittings	lf. 95	95	Steel 72, CI 18 Zn 5
		Misc. hangers, etc.		15	CI 5, Steel 10
		Valves and cocks	no. 2	3	Brass 3
500		HEATING			
530		Warm Air Furnaces			
	A	+15° coal, 690,000 Btu	no. 1	5900	CI 5340, steel 560
	C	0° coal, 890,000 Btu	no. 1	7730	CI 7080, steel 650
	D	-20° coal, 980,000 Btu	no. 1	9400	CI 8600, steel 800
	EI	+15° oil or gas 690,000 Btu	no. 1	5625	CI 5065, steel 560
	GL	0° oil or gas 890,000 Btu	no. 1	7410	CI 6760, steel 650
	HM	-20° oil or gas 980,000 Btu	no. 1	9020	CI 8220, steel 800
		Blower 11,000 CFM	no. 1	640	CI 40, Steel 600
		Motor 3 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Multiblade type exhaust fan 4800 CFM	no. 1	575	CI 60, steel 515
		Motor 1 HP with controls	no. 1	80	CI 30 Stl 30 Cu 16 Ins 4
		Multiblade type exhaust fan 1800 CFM	no. 2	400	CI 40, steel 360
		Motor 1/2 HP with controls	no. 2	100	CI 38 Stl 38 Cu 20 Ins 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace & relief duct		1266	Steel 1266
		Exhaust ducts, metal allowed		1120	Steel 1120
		Registers & grilles	no. 18	124	Steel 124
		Ceiling diffusers	no. 10	38	Steel 38
550		Firing Equipment			
	E	+15° oil burner 7 GPH	no. 1	250	CI 200, Stl 38, Cu 12
	G	0° oil burner 9 GPH	no. 1	250	CI 200, Stl 38, Cu 12
	H	-20° oil burner 10 GPH	no. 1	300	CI 240, Stl 45, Cu 15
	I	+15° gas burner 1,120,000 Btu Input	no. 1	451	CI 397, Stl 46, Cu 8
	L	0° gas burner 1,344,000 Btu Input	no. 1	488	CI 429, St. 49, Cu 10
	M	-20° gas burner 1,568,000 Btu Input	no. 1	595	CI 524, Stl 60, Cu 11
	EGH	Vent, fill, 3/4" oil line piping & fittings	lf. 120	247	CI 18, Stl 219, Br 10
	EGH	Reinforcement for 5000 gal. oil tank		75	Steel 75
560		Control Equipment			
		Relay	no. 1	7	Steel 6, copper 1
		Damper regulator	no. 4	42	Steel 37, copper 5
		Thermostat	no. 7	18	Steel 14, copper 4
570		Breeching, flue conn. 18" dia.	lf. 14	178	Steel 178

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
		Boiler-Steam System with trimmings			
	V	Coal 2600 sf net IBR Steam	no. 1	5405	CI 5395, cdpper 10
	W	Oil 2600 sf net IBR Steam	no. 1	5054	CI 5044, copper 10
	VW	Blk Stl Pipe & CI fittings			
		2-1/2" dia.	lf. 80	576	CI 96, <u>Stl 480</u>
		2" dia.	lf. 80	360	CI 60, <u>Stl 300</u>
		3/4" dia.	lf. 200	270	CI 45, <u>Stl 225</u>
	VW	Blk WI Pipe & CI fittings			
		1-1/2" dia.	lf. 100	336	CI 56, <u>WI 280</u>
		1" dia.	lf. 60	120	CI 20, <u>WI 100</u>
		3/4" dia.	lf. 150	204	CI 34, <u>WI 170</u>
		1/2" dia.	lf. 40	45	CI 10, <u>WI 35</u>
	VW	Valves and traps	no. 30	110	CI 55, copper 55
	VW	Misc. hangers, etc.		75	CI 25, steel 50
550	VW	Cond. pump - 3 GPH at 20# disch. press.	no. 1	500	CI 200 Stl 276 Cu 20 Ru 4
		Firing equipment - boiler			
	W	Oil burner GPH 9	no. 1	250	CI 200 Stl 38 Cu 12
	W	Oil lines 3/4"	lf. 40	45	<u>Steel 45</u>
	W	Oil fittings & valves 3/4"		15	CI 10, copper 5
560	VW	Boiler water level controller	no. 1	32	CI 25, copper 7
570	VW	Breeching-flue conn. 15" dia.	lf. 20	200	Steel 200
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE:		Constant		2700	Steel 2700
ELECTRICAL:		Constant		292	Copper 292
PLUMBING:		Constant			
		When Bldg. is separate		2420	Steel 2420
		When Bldg. adjoins M. A. Bldg		2326	Steel 2326
PLUMBING:		Variant U		1150	Steel 1150
HEATING:		Constant		2386	Steel 2386
		Variant EGH		294	Steel 294
STEAM SYSTEM:		Variant V		1590	St.& WI 1590
		Variant W		1635	St.& WI 1635

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building: Cafeteria (1000)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment numbers on drawings.			
640		HOUSEHOLD EQUIPMENT			0
650		Incinerator, disposal rate 300 lb.	no. 1	2850	CI 1300, steel 1550
		(1) Refrigerators - meat	no. 1	648	CI 100 Steel 522 Zinc 26
		(1) Refrigerators - veg. & dairy	no. 1	406	CI 35 steel 354 zinc 17
		(1) Refrigerators - baker	no. 1	260	CI 35 steel 214 zinc 11
		(1) Refrigerators - ice	no. 1	213	CI 35 steel 170 zinc 8
		(1) Refrigerators - garbage	no. 1	236	CI 35 steel 192 zinc 9
		(2) Refrigeration Compressors, Cooling Units & Accessories (Comp. motors 3/4 HP, 1 HP & 1 1/2 HP)		1140	Stl 774 CI 218 Cu 108Zn 40
		(3) Peeler	no. 1	562	CI 540 steel 15 Br 6 Zn 1
		(4) Sink veg.	no. 1	130	CI 4 steel 120 zinc 6
		(6) Sink butcher	no. 1	130	CI 5 steel 118 zinc 7
		(9) Meat cutter	no. 1	356	CI 350, brass 6
		(10) Fish box	no. 1	200	CI 16 steel 176 zinc 8
		(10) Fish sink	no. 1	80	CI 2 steel 74 zinc 4
VW		(11) Kettles - steam	no. 2	468	CI 420 Stl 40 Br 4 Zn 4
U		(11) Kettles - gas	no. 2	568	CI 500 Stl 60 Br 4 Zn 4
VW		(12) Steamer - steam	no. 1	994	CI 950 Stl 40 Br 2 Zn 2
U		(12) Steamer - gas	no. 1	1024	CI 980 Stl 40 Br 2 Zn 2
*		(13) Ranges - coal	no. 3	3600	CI 2850, steel 750
*		(13) Ranges - gas	no. 3	3970	CI 3220, steel 750
*		(13A) Broiler - coal	no. 1	900	CI 675, steel 225
*		(13A) Groiler - gas	no. 1	730	CI 505, steel 225
		(14A) Hoods and smoke pipe for ranges, broiler, kettle, steamer	no. 1	510	CI 20, steel 490
		(14B) Hoods and smoke pipe for baker oven and pastry stove	no. 1	190	CI 15, steel 175
		(14C) Hood over dishwasher	no. 1	135	CI 10, steel 125
		(15) Cook table sink	no. 1	68	CI 2 steel 63 zinc 3
VW		(15) Bain marie - steam	no. 1	188	CI 2 steel 180 zinc 6
U		(15) Bain marie - gas	no. 1	168	CI 2 steel 160 zinc 6
		(15A) Pot rack hooks	no. 1	21	Steel 20, zinc 1
		(16) Work table sink	no. 1	68	CI 2 steel 63 zinc 3
		(18) Salad refrigerator	no. 1	290	CI 80 steel 200 zinc 10
		(19) Salad sink	no. 1	77	CI 2 steel 72 zinc 3
		(20) Baker table	no. 1	21	Steel 20, zinc 1
		(21) Mixer	no. 1	1309	CI 1100 stl 200 br 6 Zn 3
		(22) Sink baker	no. 1	92	CI 2 steel 85 zinc 5
*		(24) Pastry stove - coal	no. 1	60	CI 40 steel 20
*		(24) Pastry stove - gas	no. 1	175	CI 155, steel 30
*		(25) Baker ovens - coal	no. 2	1700	CI 660, steel 1040
*		(25) Baker ovens - gas	no. 2	1964	CI 924, steel 1040
		(26) Pot sink	no. 1	145	CI 4 steel 135 zinc 6
		(27) Clean dish table	no. 1	157	Steel 150, zinc 7
VW		(28) Dishwashing machine-steam	no. 1	1042	CI 150 Stl 850 Br 2 Zn 40
U		(28) Dishwashing machine - gas	no. 1	1072	CI 180 Stl 850 Br 2 Zn 40
		(29) Soiled dish table, sink, swill sink and hopper	no. 1	295	Steel 279 zinc 16
VW		(30) Glass washing machine-steam	no. 1	750	CI 51 Stl 668 Br 1 Zn 30
U		(30) Glass washing machine-gas	no. 1	770	CI 71 Stl 668 Br 1 Zn 30

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
650 Cont.		(32) Slicer meat	no. 1	102	CI 75 Stl 25 Br 2
		(33) Urn stand	no. 1	56	Steel 53, zinc 3
		(34) Ice cream cab.	no. 1	285	CI 80 Stl 200 Br 5
		(34A) Disher vat.	no. 1	11	Steel 10, zinc 1
		(35) Water cooler	no. 1	160	Steel 146, brass 5 zn 9
		(37) Sink back counter	no. 1	43	Steel 41, zinc 2
		(38) Griddle	no. 1	175	CI 155 stl 15 Brass 5
		(39) Refrigerator & comp.	no. 1	260	CI 80 Stl 170 Br 2 Zn 8
		(40B) Salad pan	no. 1	116	Steel 110, zinc 6
	VW	(40D) Steam table - steam	no. 1	341	Steel 324, zinc 17
	U	(40D) Steam table - gas	no. 1	321	Steel 304, zinc 17
		(40F) Dessert pan	no. 1	170	Steel 161, zinc 9
		(40H) Bottled goods	no. 1	90	Steel 85, zinc 5
	VW	(41) Urns - steam	no. 3	128	Steel 90 brass 35 tin 3
	U	(41) Urns - gas	no. 3	113	Steel 75 brass 35 tin 3
		Dish trucks	no. 2	60	CI 60
	*	Toaster - gas	no. 1	107	Steel 100 cu 4 zinc 3
	*	Toaster - electric	no. 1	125	Steel 117 cu 5 zinc 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (650)
Heating System: Forced Warm Air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials Classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf 1216	158	Steel 142.0 zinc 16.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 29 lbs will change to)		29	Steel 27.5 zinc 1.5
280		Glazing points		4.7	Lead 120) Zinc 4.7
290		Builders hardware			
		Doors - outside	no. 10		
		Doors - inside	no. 21		
		Windows	no. 106		
		Exit Bolts	no. 8		
		Fire door	no. 2		
		Door closer	no. 12		
		Misc. (cab. & locker hardware)	no. 21		
		Total builders hardware		477	Steel 453, brass 24
		Rough hardware*			
		Nails, screws, etc.			
		Plain		2726	Steel 2726
		Galvanized		187	Steel 177.6 zinc 9.4
		*Under Rough Hardware, 85% of Steel is classed as "A" Product			
300		ELECTRICAL - 1 phase, 3 wire			
320		Entrance 200A, 2B & SN	no. 1	42	Steel 32, copper 10
		Panelboards:			
		30A - 1P Circuits	no. 20	45	Steel 40, copper 5
		30A - 2P Circuits	no. 12	54	Steel 48, copper 6
		60A - 2P Circuits	no. 3	27	Steel 24, Copper 3
		30A - 2P Circuits	no. 17	86.7	Steel 78.2 copper 8.5
		60A - 2P Circuits	no. 1	9.6	Steel 8.6 copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 7406	94.7	Copper 94.7
		#12 wire	lf. 717	14.4	Copper 14.4
		# 8 wire	lf. 374	18.9	Copper 18.9
		# 6 wire	lf. 900	71.6	Copper 71.6
		# 4 wire	lf. 210	26.6	Copper 26.6
		# 2 wire	lf. 120	24.2	Copper 24.2
		#00 wire	lf. 100	40.3	Copper 40.3
340		Outlet boxes (nonmetallic)	no. 181		
350		Switches	no. 23	4.6	Steel 2.3, copper 2.3
		Receptacles	no. 16	3.2	Steel 1.6, copper 1.6
360		Straps, misc.		15.1	Steel 15.1
370		Solder		3.8	
380		Fixtures	no. 142	57.2	Steel 43.2 copper 14.2

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
400		PLUMBING For all Plumbing Items, including deduction when Cafeteria Bldg. adjoins M. A. Bldg., refer to list No. 15 - 1000			
500		HEATING			
530		Warm Air Furnaces			
	A	+15° coal 600,000 Btu	no. 1	5100	CI 4600 steel 500
	C	0° coal 767,000 Btu	no. 1	5900	CI 5340 steel 560
	D	-20° coal 813,000 Btu	no. 1	7730	CI 7080 steel 650
	EI	+15° oil or gas 600,000 Btu	no. 1	4875	CI 4375 steel 500
	GL	0° oil or gas 767,000 Btu	no. 1	5625	CI 5065 steel 560
	HM	-20° oil or gas 813,000 Btu	no. 1	7410	CI 6760 steel 650
		Blower 8600 CFM	no. 1	640	CI 40, steel 600
		Motor 3 HP with controls	no. 1	125	CI 47 Stl 47 Cu 24 Ins 6
		Multiblade type exhaust fan 4800 CFM	no. 1	575	CI 60, steel 515
		Motor 1 HP with controls	no. 1	80	CI 30 Stl 30 Cu 16 Ins 4
		Multiblade type exhaust fan 1800 CFM	no. 2	400	CI 40, steel 360
		Motor 1/2 HP with controls	no. 2	100	CI 38 Stl 38 Cu 20 Ins 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace & relief duct		1090	<u>Steel 1090</u>
		Exhaust ducts, metal allowed		1120	<u>Steel 1120</u>
		Registers and grilles	no. 18	103	<u>Steel 103</u>
550		Firing Equipment			
	E	+15° oil burner 6 GPH	no. 1	250	CI 200 steel 38 cu 12
	G	0° oil burner 8 GPH	no. 1	250	CI 200 steel 38 cu 12
	H	-20° oil burner 9 GPH	no. 1	250	CI 200 steel 38 cu 12
	I	+15° gas burner 896,000 Btu input	no. 1	331	CI 292, steel 33 cu 6
	L	0° gas burner 1120000 Btu input	no. 1	451	CI 397 steel 46 cu 8
	M	-20° gas burner 1344000 Btu input	no. 1	488	CI 429 steel 49 cu 10
	EGH	Vent, fill 3/4" oil line & ftgs.	lf. 90	213	CI 18 <u>steel 185</u> br 10
	EGH	Reinforcement for 5000 gallon oil tank		75	<u>Steel 75</u>
560		Control Equipment			
		Relay	no. 1	7	Steel 6 copper 1
		Damper regulator	no. 4	42	Steel 37 copper 5
		Thermostat	no. 7	18	Steel 14 copper 4
570		Breeching 16" dia. flue conn.	lf. 14	160	Steel 160
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
540		(For these items, refer to			
550		(List No. 15 - 1000 under the			
560		(heading of "15 Pounds Pres-			
570		(sure Steam System for Kitchen Equipment.")			

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		TOTAL WEIGHTS ON CONTROLLED MATERIALS - "A" PRODUCTS			
		STRUCTURE: Constant		2500	Steel 2500
		ELECTRICAL: Constant		290.7	Copper 290.7
		PLUMBING: Constant			
		When Bldg. is separate		2420	Steel 2420
		When Bldg. adjoins M.A. Bldg		2326	Steel 2326
		PLUMBING: Variant U		1150	Steel 1150
		HEATING: Constant		2210	Steel 2210
		Variant EGH		260	Steel 260
		STEAM SYSTEM: Variant V		1590	Steel & WI 1590
		Variant W		1635	Steel & WI 1635

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building: Cafeteria (650)
- WPB Approved List -

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600 640 650		HOUSEHOLD EQUIPMENT Incinerator-disposal rate 200 lb. For this item refer to List No. 15E - 1000	no. 1	1750	CI 1000, steel 750

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (400)
Heating System: Forced Warm Air
Type Construction: Frame - concrete floor on earth

- WPE Approved List -

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights indicate materials classed as "A" Products.			
200		STRUCTURE			
240		Insect screen	sf 1024	133	Steel 120, zinc 13.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 29 lbs. will change to-----)		29	Steel 27.5, zinc 1.5
280		Glazing points		120	Lead 120)
290		Builders Hardware		3.9	Zinc 3.9
		Doors - outside	no. 10		
		Doors - inside	no. 17		
		Windows	no. 88		
		Exit bolts	no. 8		
		Fire door	no. 2		
		Door closers	no. 10		
		Misc. (cab.) & locker hardware)	no. 18		
		Total builders hardware		438	Steel 416, brass 22
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		2127	Steel 2127
		Galvanized		146	Steel 138.7, zinc 7.3
		*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance, 200A-2B & SF	no. 1	42	Steel 32, copper 10
		Panelboards:			
		20A - 1P Circuits	no. 16	36	Steel 32, copper 4
		30A - 2P Circuits	no. 12	54	Steel 48, copper 6
		30A - 2P Circuits	no. 12	62.4	Steel 56.4, copper 6
		60A - 2P Circuits	no. 5	45.0	Steel 40.0, copper 5
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 5650	72.0	Copper 72.0
		#12 wire	lf. 488	9.8	Copper 9.8
		# 8 wire	lf. 312	15.6	Copper 15.6
		# 6 wire	lf. 750	60	Copper 60
		# 4 wire	lf. 260	33	Copper 33
		# 0 wire	lf. 100	32	Copper 32
340		Outlet boxes - nonmetallic	no. 147		
350		Switches	no. 18	3.6	Steel 1.8, copper 1.8
		Receptacles	no. 13	2.6	Steel 1.3, copper 1.3
360		Straps, misc.		12.3	Steel 12.3
370		Solder		3	
380		Fixtures	no. 116	47	Steel 35, copper 12

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights LBS.
400		PLUMBING			
420		Fixtures - nonmetallic - 4 W.C., 6 lavs. & 1 service sink	no. 11		
		Trim for above fix. & 10 sinks	no. 21	224	CI 180 Stl 28 Br 14 Ru 2
430		CI pipe & fittings size 4"	lf. 30		
		size 3"	lf. 95		
		size 2"	lf. 260		
		Subtotal pipe & fittings	lf. 385	2700	CI 2700
		Galv. steel pipe size 1-1/2"	lf. 148		
		size 1-1/4"	lf. 130		
		Subtotal steel pipe	lf. 278	706	Steel 546, CI 27, zinc 33
		(If lead is used for roughing make-up of waste pipe, the total of 706 lbs. will change to-----)		757	CI 42, steel 524, zinc 25,
		Calking and flashing lead		604	Lead 604 (lead 166)
		Misc. hangers, etc.		65	CI 10, steel 55
440		Calv. water pipe & fittings			
		Pipe size 2"	lf. 20		
		Pipe size 1-1/4"	lf. 200		
		Pipe size 1"	lf. 20		
		Subtotal pipe & fittings	lf. 240	623	Steel 541, CI 53, zinc 29
		Pipe size 3/4"	lf. 110		
		Pipe size 1/2"	lf. 495		
		Pipe size 3/8"	lf. 15		
		Subtotal pipe & fittings	lf. 620	727	Steel 652, CI 42, zinc 33
		Misc. hangers, etc.		100	CI 15, steel 85
		Valves and cocks	no. 15	45	Brass 45
450		Water Heaters			
	ACD	250 TPH/100 deg. rise coal htr.	no. 1	1350	CI 1350
	U	250 GPH/100 deg. rise auto. gas heater	no. 1	1370	CI 1300, Stl 65, Br 5
	EGH	250 GPH/100 deg. rise auto. oil heater	no. 1	1500	CI 1472, Stl 20, Cu 8
		350 gallon storage tank	no. 1	575	Steel 575
	VW	Booster Heater(steam) with accessories	no. 1	100	CI 3, Stl 90, Br 2, Zn 5
	U	Booster Heater (gas fired) with accessories	no. 1	106	CI 9, Stl 90, Br 2, Zn 5
		Flue pipe, 20 ga.		80	Steel 80
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	2	CI 1, brass 1
	ACD	Auto. damper regulator	no. 1	11	CI 7, steel 3, brass 1
480		Black gas pipe & fittings			
		Pipe size 2-1/2"	lf. 35		
		Pipe size 2"	lf. 55		
		Pipe size 1-1/2"	lf. 45		
		Pipe size 1"	lf. 70		
		Subtotal pipe & fittings	lf. 205	609	Steel 500, CI 109
		Pipe size 3/4"	lf. 25		
		Pipe size 1/2"	lf. 10		
		Subtotal pipe & fittings	lf. 35	131	Steel 110, CI 21
	U	Misc. hangers, etc.		45	CI 10, steel 35
	U	Valves and cocks	no. 11	50	Brass 50

Where Cafeteria and Trading Post are adjacent to Morale Activities Building,
 deduct the following critical materials and weights for toilet facilities
 from items shown:

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights
420		Fixtures - nonmetallic - 2 W.C. and 2 lavs.	no. 4		
		Trim for above fixtures	no. 4	33	CI 28, Stl 2, Br 2, Ru 1
430		CI pipe & fittings size 3"	lf. 25	180	CI 180
		Galv. steel pipe size 1-1/4"	lf. 5	12	Steel 11, zinc 1
		Calking and flashing lead		60	Lead 60
		Misc. hangers, etc.		10	CI 5, steel 5
440		Galv. water pipe & fittings			
		Size 3/4"	lf. 30		
		Size 1/2"	lf. 30		
		Size 3/8"	lf. 15		
		Subtotal pipe & fittings	lf. 75	72	Steel 58, zinc 4
		Misc. hangers, etc.		10	CI 5, steel 5
		Valves and cocks	no. 2	3	Brass 3
500		HEATING			
530		Warm Air Furnaces			
	A	+15° coal 482,000 Btu	no. 1	2957	CI 2300, steel 157
	C	0° coal 621,000 Btu	no. 1	5100	CI 4600, steel 500
	D	-20° coal 650,000 Btu	no. 1	5900	CI 5340, steel 560
	EI	+15° oil or gas 422,000 Btu	no. 1	2797	CI 2640, steel 157
	GL	0° oil or gas 621,000 Btu	no. 1	4875	CI 4375, steel 500
	HM	-20° oil or gas 650,000 Btu	no. 1	5675	CI 5115, steel 560
		Blower 6550 CFM	no. 1	372	CI 30, steel 342
		Motor 2 HP with controls	no. 1	125	CI 47, Stl 47, Cu 25, Ins 6
		Multiblade type exhaust fan 1800 CFM	no. 2	400	CI 40, steel 360
		Motors 1/2 HP with controls	no. 2	100	CI 38, Stl 38, Cu 20, Ins 4
		Duct, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, and relief duct		850	Steel 850
		Exhaust duct, metal allowed		605	Steel 605
		Registers & grilles	no. 14	78	Steel 78
550		Firing Equipment			
	E	+15° oil burner 5 GPH	no. 1	250	CI 200, Stl 32, Cu 12
	G	0° oil burner 7 GPH	no. 1	250	CI 200, Stl 38, Cu 12
	H	-20° oil burner 7 GPH	no. 1	250	CI 200, Stl 38, Cu 12
	I	+15° gas burner 784,000 Btu Input	no. 1	311	CI 274, Stl 31, Cu 6
	L	0° gas burner 896,000 Btu Input	no. 1	331	CI 292, Stl 33, Cu 6
	M	-20° gas burner 1,120,000 Btu Input	no. 1	451	CI 397, Stl 46, Cu 8
	EGH	Vent, fill, 3/4" oil line & ftgs.	lf. 90	213	CI 13, <u>Stl 185</u> , Cu 10
	EGH	Reinforcement for 4000 gal. oil tank		60	Steel 60
560		Control Equipment			
		Relay	no. 1	7	Steel 6, copper 1
		Damper regulator	no. 4	42	Steel 37, copper 5
		Thermostat	no. 7	18	Steel 14, copper 4
570		Breeching, flue conn. 16" dia.	lf. 10	114	Steel 114
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT			
540		Boiler - Steam System - with trimmings			
	V	Coal 2200 sf net IBR Steam	no. 1	4958	CI 4948, copper 10
	W	Oil 2200 sf net IBR Steam	no. 1	4780	CI 4770, copper 10
	VW	Blk Stl Pipe & CI fittings 2-1/2" dia.	lf. 80	576	CI 96, <u>steel 480</u>

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540	VW	Blk Stl Pipe & CI fittings (Cont.) 2" dia.	lf. 80	360	CI 60, <u>steel 300</u>
		3/4" dia.	lf. 125	180	CI 30, <u>steel 150</u>
	VW	Blk WI Pipe & CI fittings 1-1/2" dia.	lf. 100	336	CI 56, <u>WI 280</u>
		1" dia.	lf. 60	120	CI 20, <u>WI 100</u>
		3/4" dia.	lf. 125	180	CI 30, <u>WI 150</u>
		1/2" dia.	lf. 40	45	CI 10, <u>WI 35</u>
	VW	Valves and traps	no. 25	90	CI 45, copper 45
	VW	Misc. hangers, etc.		60	CI 20, steel 40
	VW	Cond. pump 1.5 GPH @ 20# disch. press.	no. 1	500	CI 200 Stl 276 Cu 20 Ru 4
550		Firing Equipment - Boiler			
	W	Oil Burner GPH 7	no. 1	250	CI 200, Stl 38, Cu 12
	W	Oil lines 3/4"	lf. 40	45	<u>Steel 45</u>
	W	Oil fittings & valves 3/4"		15	CI 10, copper 5
560	VW	Boiler water level controller	no. 1	32	CI 25, copper 7
570	VW	Breeching, flue conn. 15" dia.	lf. 20	200	Steel 200
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE -Constant				1930	Steel 1930
ELECTRICAL-Constant				222.4	Copper 222.4
PLUMBING -Constant					
When Building is separate -----				1839	Steel 1839
When Building adjoins					
M. A. Building -----				1760	Steel 1760
PLUMBING-Var. U.				610	Steel 610
HEATING -Constant				1455	Steel 1455
-Var. EGH				245	Steel 245
STEAM SYSTEM-Var. V.				1495	Steel 1495
Var. W.				1540	Steel 1540

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities

Building: Cafeteria (400)

- WPB Approved List -

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment numbers on drawings.			
640		HOUSEHOLD EQUIPMENT			
650		Incinerator-disposal rate 100 lbs.	no. 1	1550	CI 900, steel 650
		(1) Refrigerator - meat	no. 1	364	CI 75, Steel 276, zinc 13
		(1) Refrigerator - veg. & dairy	no. 1	344	CI 35 Steel 294 Zinc 15
		(1) Refrigerator - baker	no. 1	291	CI 35 Steel 244 Zinc 12
		(1) Refrigerator - ice	no. 1	211	CI 35 Steel 168 Zinc 8
		(1) Refrigerator - garbage	no. 1	211	CI 35 Steel 168 Zinc 8
		(2) Refrigerator Compressors, Cooling Units & Accessories (Comp. Motors 3/4 HP., 1 HP, and 1-1/2 HP.)		1163	Steel 805, CI 218, Copper 98, Zinc 42
		(3) Peeler	no. 1	562	CI 540 Stl 15 Br 6 Zn 1
		(4) Sink veg.	no. 1	130	CI 4 Steel 120 Zinc 6
		(6) Sink butcher	no. 1	94	CI 2 Steel 88 Zinc 4
		(9) Meat cutter	no. 1	204	CI 200, brass 4
		(10) Fish box	no. 1	200	CI 16 Steel 176 Zinc 8
		(10) Fish sink	no. 1	71	CI 2, Steel 65, Zinc 4
VW		(11) Kettles - steam	no. 1	264	CI 230 Stl 30 Br 2 Zn 2
U		(11) Kettles - gas	no. 1	284	CI 250 Stl 30 Br 2 Zn 2
UW		(12) Steamer - steam	no. 1	994	CI 950 Stl 40 Br 2 Zn 2
U		(12) Steamer - gas	no. 1	1024	CI 980 Stl 40 Br 2 Zn 2
*		(13) Ranges - coal	no. 2	2400	CI 1900, Steel 500
*		(13) Ranges - gas	no. 2	2685	CI 2185, Steel 500
*		(13A) Broiler - coal	no. 1	875	CI 650, Steel 225
*		(13A) Broiler - gas	no. 1	713	CI 488, Steel 225
		(14A) Hoods and smoke pipe for ranges, broiler, kettle, steamer	no. 1	265	CI 15, Steel 250
		(14B) Hood and smoke pipe for baker oven & pastry stove	no. 1	135	CI 10, Steel 125
		(14C) Hood over dishwasher	no. 1	110	CI 10, Steel 100
VW		(15) Bain marie - steam	no. 1	188	CI 2 Steel 180 Zinc 6
U		(15) Bain marie - gas	no. 1	168	CI 2 Steel 160 Zinc 6
		(15A) Pot rack hooks	no. 1	17	Steel 16, Zinc 1
		(15B) Pot sink and hooks	no. 1	139	CI 4 Steel 128 Zinc 7
		(18) Salad refrigerator	no. 1	290	CI 80 Steel 200 Zinc 10
		(19) Sink	no. 1	77	CI 2 Steel 72 Zinc 3
		(20) Baker table	no. 1	21	Steel 20, Zinc 1
		(21) Mixer	no. 1	1033	CI 850 Stl 175 Br 6 Zn 2
		(22) Sink baker	no. 1	92	CI 2 Steel 85 Zinc 5
*		(24) Pastry stove - coal	no. 1	60	CI 40, Steel 20
*		(24) Pastry stove - gas	no. 1	175	CI 155, Steel 20
*		(25) Baker oven - coal	no. 1	850	CI 330, Steel 520
*		(25) Baker oven - gas	no. 1	982	CI 462, Steel 520
		(27) Clean dish table	no. 1	147	Steel 140, Zinc 7
VW		(28) Dishwashing machine - steam	no. 1	1042	CI 150 Stl 850 Zn 40 Br 2
U		(28) Dishwashing machine - gas	no. 1	1072	CI 180 Stl 850 Zn 40 Br 2
		(29) Soiled dish table, sink, swill sink & hopper	no. 1	204	Steel 193, Zinc 11
		(30) Clean glass sink	no. 1	63	Steel 60, Zinc 3
		(32) Slicer meat	no. 1	66	CI 50, Stl 15, Br 1
		(33) Urn stand	no. 2	63	CI 60, Zinc 3
		(34) Ice cream cab.	no. 1	285	CI 80, Stl 200, Br 5
		(34A) Dish vat	no. 1	11	Steel 10, Zinc 1
		(35) Water cooler	no. 1	145	Steel 133, Br 5, Zn 7

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
650	(Cont.)	Griddle	no. 1	175	CI 155 Steel 15 Brass 5
		(40P) Salad pan	no. 1	116	Steel 110, Zinc 6
		(40F) Dessert pan	no. 1	170	Steel 161, Zinc 9
		(40J) Sink	no. 1	21	Steel 20, Zinc 1
	VW	(41) Urns - steam	no. 4	128	Steel 90, Brass 35, Tin 3
	U	(41) Urns - gas	no. 4	108	Steel 70, Brass 35, Tin 3
		Dish truck	no. 1	30	CI 30
	*	Toaster - gas	no. 1	104	Stl 100, Cu 1, Zn 3
	*	Toaster - electric	no. 1	107	Stl 100, Cu 4, Zn 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (250)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

- WPB Approved Lists -

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 922	120	Steel 108.0, zinc 12.0
260		Sheet metal, flashings, chimneys only (If lead flashing is used, the total of 29 lbs. will change to -----)		29	Steel 27.5, zinc 1.5
280		Glazing points		105	Lead 105)
290		Builders hardware		3.6	Zinc 3.6
		Doors - outside	no. 7		
		Doors - inside	no. 15		
		Windows	no. 78		
		Exit bolts	no. 8		
		Fire door	no. 2		
		Door closers	no. 10		
		Misc. (cab. & locker hardware)	no. 18		
		Total builders hardware		412	Steel 391.4, brass 20.6
		Rough hardware*			
		Nails, screws, etc.			
		Plain		1500	Steel 1500
		Galvanized		125	Steel 118.7, zinc 6.3
		*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance, 200A, 2B & SM	no. 1	42	Steel 32, copper 10
		Panelboards:			
		30A - 1P Circuits	no. 16	36	Steel 32, copper 4
		30A - 2P Circuits	no. 12	54	Steel 48, copper 6
		30A - 2P Circuits	no. 12	62.4	Steel 56.4, copper 6
		60A - 2P Circuits	no. 5	45.0	Steel 400, copper 5
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf 5500	70.6	Copper 70.6
		#12 wire	lf. 488	9.8	Copper 9.8
		# 8 wire	lf. 312	15.6	Copper 15.6
		# 6 wire	lf. 750	60	Copper 60
		# 4 wire	lf. 260	33	Copper 33
		# 0 wire	lf. 100	32	Copper 32
340		Outlet boxes - nonmetallic	no. 133		
350		Switches	no. 18	3.6	Steel 1.8, copper 1.8
		Receptacles	no. 13	2.6	Steel 1.3, copper 1.3
360		Straps, misc.		11.1	Steel 11,1
370		Solder		2.8	
380		Fixtures	no. 102	40.8	Steel 30.6, cu 10.2
400		PLUMBING			
		For all Plumbing Items, including deductions when Cafeteria Building adjoins M. A. Building, refer to List No. 15 - 400.			

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
500		HEATING			
530		Warm Air Furnaces			
	A	+15° coal 405,000 Btu	no. 1	2443	CI 2300, steel 143
	C	0° coal 515,000 Btu	no. 1	2957	CI 2800, steel 157
	D	-20° coal 536,000 Btu	no. 1	2957	CI 2800, steel 157
	E	+15° oil 405,000 Btu	no. 1	2313	CI 2170, steel 143
	G	0° oil 515,000 Btu	no. 1	2797	CI 2640, steel 157
	H	-20° oil 536,000 Btu	no. 1	2797	CI 2640, steel 157
	I	+15° gas 405,000 Btu	no. 1	2313	CI 2170, steel 143
	L	0° gas 515,000 Btu	no. 1	2797	CI 2640, steel 157
	M	-20° gas 536,000 Btu	no. 1	2797	CI 2640, steel 157
		Blower 5230 CFM	no. 1	372	CI 30, steel 342
		Motor 1-1/2 HP with controls	no. 1	110	CI 41, Stl 41, Cu 22, Ru 6
		Multiblade type exhaust fan 1800 CFM 1/4" SP	no. 2	400	CI 40, steel 360
		Motors 1/2 HP with controls	no. 2	100	CI 38 Stl 38 Cu 20 Ru 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace and relief duct		690	Steel 690
		Metal exhaust ducts	lf. 25	444	Steel 444
		Registers and grilles	no. 12	62	Steel 62
550		Firing equipment			
	E	+15° oil burner 4 GPH	no. 1	155	CI 124 steel 23 cu 8
	G	0° oil burner 6 GPH	no. 1	250	CI 200 steel 38 cu 12
	H	-20° oil burner 6 GPH	no. 1	250	CI 200 steel 38 cu 12
	I	+15° gas burner 560,000 Btu total input	no. 1	272	CI 239 steel 27 cu 6
	L	0° gas burner 784,000 Btu total input	no. 1	311	CI 274 steel 31 cu 6
	M	-20° gas burner 784,000 Btu total input	no. 1	311	CI 274 steel 31 cu 6
	EGH	Vent, fill, 3/4 cil line & ftgs.	lf. 90	213	CI 28 <u>steel 175</u> cu 10
	EGH	Reinforcement for 3000 gallon oil tank		45	Steel 45
560		Control Equipment			
		Relay	no. 2	14	Steel 12, copper 2
		Damper regulator	no. 4	42	Steel 37, copper 5
		Thermostats	no. 7	18	Steel 14, copper 4
570		Breeching 16" dia.	lf. 10	114	Steel 114
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT			
540		(For these items, refer to			
550		(List No. 15 - 400 under the			
560		(heading of "15 Pounds Pres-			
570		(sure Steam System for			
		(Kitchen Equipment			
		TOTAL WEIGHTS OF CONTROLLED MATERIALS "A" PRODUCTS			
		STRUCTURE -Constant		1375	Steel 1375
		ELECTRICAL-Constant		221	Copper 221
		PLUMBING -Constant			
		When building is separate		1839	Steel 1839
		When building adjoins M. A. Bldg.		1760	Steel 1760
		PLUMBING-Var. U.		610	Steel 610
		HEATING -Constant		1134	Steel 1134
		-Var. EGH		210	Steel 210
		STEAM SYSTEM-Var. V.		1495	Steel 1495
		Var. W.		1540	Steel 1540

List No. 15E - 250
Sheet 1 of 1
Rev. Oct. 15, 1943

Series: WD-1, Project Facilities Building: Cafeteria (250)

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600 640 650		HOUSEHOLD EQUIPMENT Incinerator, disposal rate 100 lb. For this item, refer to List No. 15E - 400	no. 1	1550	CI 900, Steel 650

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria - 175 (125)
Heating System: Forced Warm Air
Type Construction: One story masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 712	92.6	Steel 83.3 Zinc 9.3
260		Sheet metal, flashings, chimneys only (If lead flashing is used, the total of 19.2 lbs. will change to)		19.2 .99	Steel 18.2 Zinc 1 Lead <u>99)</u>
280		Glazing points		3.3	Zinc 3.3
290		Builders hardware			
		Doors - outside	no. 7		
		Doors - inside	no. 17		
		Windows	no. 60		
		Fire exit bolts	no. 8		
		Coal doors	no. 2		
		Cleanout doors	no. 2		
		Door closers	no. 10		
		Misc. (cab. & locker hardware)	no. 15		
		Total builders hardware		343	Steel 325.8 Brass 17.2
		Rough hardware*			
		Nails, screws, etc.			
		Plain		1200	Steel 1200
		Galvanized		115	Steel <u>109</u> Zinc 6
		*Under Rough Hardware, 85% of steel is classed of "A" Product			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN Panelboards:	no. 1	22.0	Steel 18.7 Copper 3.3
		30A - 2P Circuits	no. 8	41.6	Steel 37.6 Copper 4
		30A - 1P "	no. 12	27	Steel 24 Copper 3
		60A - 2P "	no. 1	9	Steel 8 Copper 1
330		Conductors (equiv. 1f. single wire)			
		#14 wire	1f. 2800	36.0	Copper <u>36.0</u>
		#12 wire	1f. 500	10	Copper <u>10</u>
		# 4 wire	1f. 300	38.2	Copper <u>38.2</u>
340		Outlet boxes (non-metallic)	no. 66		
350		Switches	no. 15	3	Steel 1.5 Copper 1.5
		Receptacles	no. 16	3.2	Steel 1.6 Copper 1.6
360		Straps, misc.		5.6	Steel 5.6
370		Solder		1.4	
380		Fixtures	no. 35	14	Steel 10.5 Copper 3.5
400		PLUMBING			
420		Fixtures - non-metallic - 2 W.C., 2 Lavs. & 1 Serv. sink	no. 5		
		Trim for above fixtures and 10 sinks	no. 15	145	CI 124 Stl 10 Br 10 Ru 1

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4" size 3" size 2" Subtotal pipe & fittings Galv. steel pipe, size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up for waste pipe, the to- tal of 466 lbs. will change to Calking and flashing lead Misc. hangers, etc.	lf. 20 lf. 40 lf. 170 lf. 230 lf. 115 lf. 26 lf. 141 517 450 40	1800 466 517 450 40	CI 1800 Steel 377 CI 70 Zn 19 CI 81 Stl 287 Zn 16 Lead 133 Lead 450 CI 5 Steel 35
440		Galv. water pipe & fittings Size 2" Size 1-1/4" Size 1" Subtotal pipe & fittings Size 3/4" Size 1/2" Size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 10 lf. 105 lf. 28 lf. 143 lf. 65 lf. 360 lf. 15 lf. 445 no. 9	385 485 60 30	Steel 300 CI 69 Zn 16 Steel 375 CI 90 Zn 20 CI 10 Steel 50 Brass 30
450		Water Heaters ACD 150 GPH/100 deg. rise coal htr. ILM 150 GPH/100 deg. rise auto. gas heater including firing equip. RGH 150 GPH/100 deg. rise auto. oil heater including firing equip. 200 gallon storage tank VW Booster heater (steam) with accessories U Booster heater (gas-fired) with accessories Flue pipe, 20 gage	no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1	825 960 973 400 100 106 85	CI 825 CI 900 Stl 55 Brass 5 CI 950 Stl 15 Cu 8 Steel 400 CI 3 Stl 90 Br 2 Zn 5 CI 9 Stl 90 Br 2 Zn 5 Steel 85
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer	no. 1 no. 1 no. 1 no. 1	1 1 2 11	Brass 1 Brass 1 Brass 1 CI 1 CI 7 Stl 3 Brass 1
480		ACD Auto. damper regulator Black gas pipe & fittings Size 2-1/2" Size 2" Size 1-1/4" Size 1" Size 3/4" Size 1/2" Subtotal pipe & fittings U Misc. hangers, etc. U Valves and cocks	no. 1 lf. 15 lf. 40 lf. 20 lf. 20 lf. 20 lf. 10 lf. 125 no. 8	11 424 30 40	CI 7 Stl 3 Brass 1 Steel 344 CI 80 CI 5 Steel 25 Brass 40
500		HEATING Warm Air Furnaces			
530					
	A	415° coal 192,000 Btu	no. 1	1447	CI 1350 Steel 97
	C	0° coal 246,000 Btu	no. 1	1852	CI 1750 Steel 102
	D	-20° coal 254,000 Btu	no. 1	1852	CI 1750 Steel 102

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
530 Cont.	EI	Warm Air Furnaces			
	GL	+15° coal or gas 192,000 Btu	no. 1	1367	CI 1270 Steel 97
	HM	0° coal or gas 246,000 Btu	no. 1	1752	CI 1650 Steel 102
		-20° coal or gas 254,000 Btu	no. 1	1752	CI 1650 Steel 102
		Blowers 2300 CFM	no. 1	490	CI 25 Steel 465
		Motor 3/4 HP with controls	no. 1	62	CI 23 Stl 23 Cu 12 Ru 4
		Multiblade exhaust fan 1800 CFM			
		1/4" SP	no. 2	400	CI 40 Steel 360
		Motor 1/2 HP with controls	no. 2	100	CI 38 Stl 38 Cu 20 Ru 4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc,			
		3 l.f. at furnace & relief duct		305	Steel 305
		Metal exhaust duct	lf. 25	605	Steel 605
		Registers and grilles	no. 9	47	Steel 47
550		Firing Equipment			
	E	+15° oil burner 2 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	G	0° oil burner 3 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	H	-20° oil burner 3 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	I	+15° gas burner 286,000 Btu input	no. 1	256	CI 225 Steel 26 Cu 5
	L	0° gas burner 430,000 Btu input	no. 1	279	CI 245 Steel 28 Cu 6
	M	-20° gas burner 430,000 Btu input	no. 1	279	CI 245 Steel 28 Cu 6
	EGH	Vent, fill, 3/4" oil line & ftgs.	lf. 90	213	CI 28 Steel 1/5 Cu 10
	EGH	Reinforcing steel for oil tank		30	Steel 30
560		Control Equipment			
		Relay	no. 2	14	Steel 12 Copper 2
		Damper regulator	no. 4	42	Steel 37 Copper 5
		Thermostats	no. 7	18	Steel 14 Copper 4
570		Breeching-flue conn. 16" dia.	lf. 10	114	Steel 114
		15 POUNDS STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
540		Boiler - Steam System with trimmings			
	V	Coal 1000 sf net IBR steam	no. 1	2278	CI 2268 Copper 10
	W	Oil 1000 sf net IBR steam	no. 1	2510	CI 2500 Copper 10
	VW	Black steel pipe & CI fittings			
		2" dia.	lf. 40	180	CI 30 Steel 150
		1-1/2" dia.	lf. 20	66	CI 11 Steel 55
		3/4" dia.	lf. 60	84	CI 14 Steel 70
	VW	Black WI pipe & CI fittings			
		1-1/2" dia.	lf. 40	132	CI 22 WI 110
		1" dia.	lf. 50	102	CI 17 WI 85
		3/4" dia.	lf. 20	28	CI 5 WI 23
		1/2" dia.	lf. 20	21	CI 4 WI 17
	VW	Valves and traps	no. 18	60	CI 30 Copper 30
	VW	Misc. hangers, etc.		30	CI 10 Steel 20
	VW	Cond. pump - 1.5 GPH at 20# discharge pressure	no. 1	500	CI 200 Stl 276 Cu 20 Ru 4
550		Firing Equipment - Boiler			
	W	Oil burner GPH 4	no. 1	155	CI 124 Steel 23 Cu 8
	W	Oil lines 3/4"	lf. 40	45	Steel 45
	W	Oil fittings & valves 3/4"		15	CI 10 Copper 5
560	VW	Boiler water level controller	no. 1	32	CI 25 Copper 7
570	VW	Breeching-flue conn. 12" dia.	lf. 20	160	Steel 160

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS			
		Structure - Constant		1110	Steel 1110
		Electrical - Constant		84.2	Copper 84.2
		Plumbing - Constant		1052	Steel 1052
		Variant U		344	Steel 344
		Heating - Constant		910	Steel 910
		Variant EGH		205	Steel 205
		Steam System - Variant V		510	Steel 510
		Variant W		555	Steel 555

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building: Cafeteria - 175 (125)

-WPB Approved List-

Crit. List No.	Var.	Critical Material	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment and numbers on drawings.			
650		HOUSEHOLD EQUIPMENT			
		(1) Refrigerator - meat	no. 1	277	CI 50 Steel 216 Zinc 11
		(1) Refrigerator - dairy	no. 1	278	CI 35 Steel 264 Zinc 14
		(1) Refrigerator - veg & ice	no. 1	262	CI 35 Steel 216 Zinc 11
		(2) Refrigeration compressors, Cooling units & accessories (comp.motors, 2-1/2HP & 1HP)		988	Stl 686 CI 187 Cu 76 Zn 39
		(4) Sink veg.	no. 1	109	CI 4 Steel 100 Zinc 5
		(6) Butcher sink	no. 1	94	CI 2 Steel 88 Zinc 4
	*	(13) Ranges - coal	no. 2	2400	CI 1900 Steel 500
	*	(13) Ranges - gas	no. 2	2685	CI 2185 Steel 500
		(14A) Hood & smoke pipe over ranges & pastry stove	no. 1	240	CI 15 Steel 225
		(14C) Hood over dishwasher	no. 1	85	CI 10 Steel 75
VW		(15) Bain marie - steam	no. 1	127	CI 2 Stl 119 Zn 6
U		(15) Bain marie - gas	no. 1	107	CI 2 Stl 100 Zn 5
		(15A) Pot rack hook	no. 1	11	Steel 10 Zinc 1
		(15B) Pot sink	no. 1	130	CI 4 Stl 120 Zn 6
		(19) Salad sink	no. 1	68	CI 2 Stl 63 Zn 3
	*	(24) Pastry stove - coal	no. 1	60	CI 40 Steel 20
	*	(24) Pastry stove - gas	no. 1	175	CI 155 Steel 20
		(27) Clean dish table	no. 1	147	Steel 140 Zinc 7
VW		(28) Dishwashing machine - steam	no. 1	788	CI 110 Stl 640 Br 2 Zn 36
U		(28) Dishwashing machine - gas	no. 1	818	CI 140 Stl 640 Br 2 Zn 36
		(29) Soiled dish table, sink swill sink & hopper	no. 1	159	Steel 150 Zinc 9
		(30) Clean glass sink	no. 1	63	Steel 60 Zinc 3
		(32) Slicer meat	no. 1	66	CI 50 Steel 15 Brass 1
		(33) Urn stand	no. 1	42	Steel 40 Zinc 2
		(34) Ice cream cab.	no. 1	214	CI 60 Stl 150 Br 4
		(34A) Dish vat	no. 1	11	Steel 10 Zinc 1
		(35) Water cooler	no. 1	145	Stl 133 Br 5 Zn 7
		(40B) Salad pan	no. 1	116	Steel 110 Zinc 6
		(40F) Dessert pan	no. 1	170	Steel 161 Zinc 9
		(40I) Sink	no. 1	21	Steel 20 Zinc 1
VW		(41) Urns - steam	no. 3	128	Steel 90 Br 35 Tin 3
U		(41) Urns - gas	no. 3	108	Steel 70 Br 35 Tin 3
		Dish truck	no. 1	30	CI 30
	*	Toaster - gas	no. 1	75	Steel 72 Cu 1 Zn 2
	*	Toaster - electric	no. 1	107	Steel 100 Cu 4 Zn 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Cafeteria (75)
Heating System: Forced warm air
Type Construction: Frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate material classed as "A" Products			
200		STRUCTURAL			
240		Insect screen	sf. 152	19.8	Steel 17.8 Zinc 2.0
260		Sheet metal flashings, chimneys only (If lead flashing is used, the total of 24 lbs. will change to.		24	Steel 22.8 Zinc 1.2
				. 96	Lead 96)
280		Glazing points		1	Zinc 1
290		Builders hardware			
		Doors - outside	no. 3		
		Doors - inside	no. 10		
		Windows	no. 15		
		Misc. cab. wickets, etc.	no. 8		
		Fire exit bolts	no. 2		
		Vault doors	None		
		Door closers	no. 3		
		Total builders hardware		116	Steel 110.2 Brass 5.8
		Rough hardware*			
		Nails, screws, etc.			
		Plain		466	Steel 466
		Galvanized		35	Steel 33.2 Zinc 1.8
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN	no. 1	22	Steel 18.7 Copper 3.3
		Panelboards & Switches			
		30A - 1P Circuits	no. 16	36	Steel 32 Copper 4
		30A - 2P Circuits	no. 6	31.2	Steel 28.2 Copper 3
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 1400	18	Copper 18
		#12 wire	1f. 300	6	Copper 6
		# 2 wire	1f. 200	40	Copper 40
340		Outlet boxes (non-metallic)	no. 38		
350		Switches	no. 8	1.6	Steel 0.8 Copper 0.8
		Receptacles	no. 10	2	Steel 1 Copper 1
360		Straps, misc.		3.2	Steel 3.2
370		Solder		0.8	
380		Fixtures	no. 20	8	Steel 6 Copper 2
400		PLUMBING			
420		Fixtures - non-metallic, 2 W.C. 2 Lavs. & 1 Serv. Sink	no. 5		
		Trim for above fixtures and 5 sinks	no. 10	90	CI 72 Stl 9 Br 8 Ru 1

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4" size 3" size 2" Subtotal pipe & fittings Galv. steel pipe, size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up or waste pipe, the total of 296 lbs. will change to Calking and flashing lead Misc. hangers, etc.	lf. 5 lf. 45 lf. 90 lf. 140 lf. 80 lf. 10 lf. 90	975 296 328 246 25	CI 975 <u>Steel 243</u> CI 40 Zinc 13 CI 48 Stl 185 Zn 10 Lead 85) Lead 246 CI 5 Steel 20
440		Galv. water pipe & fittings Size 1-1/2" Size 1-1/4" Size 1" Subtotal pipe & fittings Galv. water pipe & fittings Size 3/4" Size 1/2" Size 3/8" Subtotal pipe & fittings Misc. hangers, etc. valves and cocks	lf. 20 lf. 60 lf. 60 lf. 140 lf. 45 lf. 245 lf. 10 lf. 300 no. 3	328 322 30 15	<u>Steel 254</u> CI 60 Zn 14 <u>Steel 246</u> CI 62 Zinc 14 <u>Steel 25</u> CI 5 Brass 15
450	ACD ILM EGH	Water Heaters 100 GPH/1000° rise coal htr. 100 GPH/1000° rise auto, gas htr. 100 GPH/1000° rise auto. oil htr. 100 gallon storage tank Flue pipe, 20 gage	no. 1 no. 1 no. 1 no. 1	600 845 748 198 40	CI 600 CI 790 Steel 50 Brass 5 CI 725 Steel 15 Copper 8 Steel 180 Zinc 18 Steel 40
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer	no. 1 no. 1 no. 1	1 1 2	Brass 1 Brass 1 Brass 1 CI 1
480	ACD U U	Auto. damper regulator Black gas pipe & fittings Size 2" Size 1-1/4" Size 1" Size 3/4" Size 1/2" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	no. 1 lf. 10 lf. 35 lf. 50 lf. 15 lf. 50 lf. 160 no. 8	11 305 15 30	CI 7 Steel 3 Brass 1 <u>Steel 245</u> CI 60 <u>Steel 13</u> CI 2 Brass 30
500 530	A C D EI GL HM	HEATERS Heaters - Warm Air Furnaces +15° coal 159,000 Btu 0° coal 200,000 Btu -20° coal 206,000 Btu +15° oil or gas 159,000 Btu 0° oil or gas 200,000 Btu -20° oil or gas 206,000 Btu Blower 1850 CFM Motor 1/3 HP with controls Multiblade exhaust fan Motor 1/2 HP with controls	no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1	1447 1447 1447 1367 1367 1367 190 30 200 50	CI 1350 Steel 97 CI 1350 Steel 97 CI 1350 Steel 97 CI 1270 Steel 97 CI 1270 Steel 97 CI 1270 Steel 97 CI 15 Steel 175 CI 11 Stl 11 Cu 6 Ru 2 CI 20 Steel 180 CI 19 Stl 19 Cu 10 Ru 2

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
530 Cont.		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 lf. at furnace & relief duct		145	Steel 145
		Metal exhaust duct		365	Steel 365
		Registers and grilles	no. 5	30	Steel 30
550		Firing Equipment - Furnaces			
	E	+15° oil burner 2 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	G	0° oil burner 2 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	H	-20° oil burner 2 GPH	no. 1	155	CI 124 Steel 23 Cu 8
	I	+15° gas burner 286,000 Btu input	no. 1	256	CI 225 Steel 26 Cu 5
	L	0° gas burner 286,000 Btu input	no. 1	256	CI 225 Steel 26 Cu 5
	N	-20° gas burner 286,000 Btu input	no. 1	256	CI 225 Steel 26 Cu 5
	EGH	Oil pipe 2" & 3/4"	lf. 90	178	Steel 178
	EGH	Oil line ftg & valve 2" & 3/4"		45	CI 38 Cu 7
	EGH	Reinf. for 1000 gal. oil tank		15	Steel 15
560		Control Equipment			
		Relay	no. 1	7	Steel 6 Copper 1
	ACD	Damper regulator	no. 1	8	Steel 7 Copper 1
		Thermostat	no. 3	9	Steel 8 Copper 1
570		Breeching-flue conn. 15" dia.	lf. 10	100	Steel 100

TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS

Structure	- Constant	425	Steel 425
Electrical	- Constant	64	Copper 64
Plumbing	- Constant	743	Steel 743
	Var. U	245	Steel 245
Heating	- Constant	510	Steel 510
	Var. EGH	193	Steel 193

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building: Cafeteria (75)
-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs
		Figures in brackets refer to equipment and numbers on drawings.			
600		HOUSEHOLD EQUIPMENT			
650		(1) Refrigerator - general	no. 1	314	CI 50 Steel 251 Zinc 13
		(2) Refrigeration Compressor, Cooling Unit & Accessories (Comp. Motor 1 HP)		434	Steel 298 CI 67 Cu 40 Zinc 29
		(4) Sink	no. 1	109	CI 4 Steel 100 Zinc 5
	*	(13) Range - coal	no. 1	1300	CI 1000 Steel 300
	*	(13) Range - gas	no. 1	1500	CI 1200 Steel 300
		(14A) Hood over range	no. 1	140	CI 10 Steel 130
	*	(15) Bain marie & steam table-gas	no. 1	219	CI 4 Steel 205 Zinc 10
	*	(15) Bain marie & steam table-elec.	no. 1	227	CI 4 Stl-211 Cu 2 Zn 10
		(15B) Pot sink	no. 1	130	CI 4 Steel 120 Zinc 6
		(27) Clean dish table	no. 1	110	Steel 105 Zinc 5
		(28) Dishwashing sinks and soiled table	no. 1	230	CI 15 Steel 1205 Zinc 10
		(33) Urn stand	no. 1	42	Steel 40 Zinc 2
	*	(41) Urns - gas	no. 2	98	Steel 76 Brass 20 Tin 2
	*	(41) Urns - electric	no. 1	25	Steel 20 Cu 4 Zinc 1
	*	Toaster - gas	no. 1	75	Steel 72 Cu 1 Zinc 2
	*	Toaster - electric	no. 1	107	Steel 100 Cu 4 Zinc 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Infirmary (2100) With Dental Office
Heating System: Forced Hot Water
Type Construction: Frame first floor - 1 story masonry and frame construction

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Product			
200		STRUCTURE			
240		Insect screen	sf. 705	92	Steel 83.0 Zinc 9.0
260		Sheet metal, flashings, chimney only		15	Steel 14.2 Zinc 0.8
		(If lead flashing is used, the total of 15 lbs. will change to)		30	Lead 80)
280		Glazing points		3.8	Zinc 3.8
290		Builders hardware			
		Doors - outside	no. 4		
		Doors - inside	no. 40		
		Windows	no. 83		
		Exit bolts	no. 4		
		Fire door hardware	no. 2		
		Door closers	no. 14		
		Misc. (cab. & locker hardware)	no. 40		
		Total builders hardware		463	Steel 440 Brass 23
		Rough hardware*			
		Nails, bolts, etc.			
		Plain		2000	Steel 2000
		Galvanized		137	Steel 130.1 Zinc 6.9
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 100A - 3P - 2B & SN	no. 1	22	Steel 18.7 Copper 3.3
		Panelboards- 30A-1P Circuits	no. 12	27	Steel 24 Copper 3
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 3100	40	Copper 40
		#12 wire	1f. 155	3.1	Copper 3.1
		# 8 wire	1f. 300	15	Copper 15
		# 4 wire	1f. 100	12.7	Copper 12.7
340		Outlet boxes (non-metallic)	no. 170		
350		Switches	no. 31	6.2	Steel 3.1 Copper 3.1
		Receptacles	no. 37	7.4	Steel 3.7 Copper 3.7
360		Straps		14	Steel 14
370		Solder		3.5	
380		Fixtures	no. 72	28.8	Steel 21.6 Copper 7.2
390		Nurses' call system (30 outlets) (equipment only)	no. 1	18	Steel 9 Copper 9
400		PLUMBING			
420		Fixtures - non-metallic, 7 w.c., 21 lavs., 1 s.s., 7 sinks, 1 tub, 1 util. sink, 2 d.f.	no. 40		
		Trim for above fixtures	no. 40	401	CI 318 Stl 27 Br 50 Ru 6 . . .

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4" size 3" size 2" Subtotal pipe & fittings (If lead is used for roughing make-up of soil pipe the total of 3700 lbs. will change to. Galv. steel pipe, size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 1050 lbs. will change to . . . Calking and flashing lead Misc. hangers, etc.	lf. 150 lf. 165 lf. 170 lf. 485 lf. 285 lf. 50 lf. 335 lf. 1115 810 165	3700 3679 1050 1115 810 165	CI 3700 CI 3574 Lead 105) Steel 903 CI 100 Zn 47 CI 124 Stl 810 Zn 43 Ld138 Lead 810 CI 30 Steel 135
440		Galv. water pipe & fittings Size 1-1/2" Size 1-1/4" Size 1" Subtotal pipe & fittings Size 3/4" Size 1/2" Size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 40 lf. 140 lf. 185 lf. 365 lf. 140 lf. 540 lf. 180 lf. 860 no. 11	925 968 160 35	Steel 717 CI 160 Zinc 48 Steel 743 CI 180 Zn 45 CI 25 Steel 135 Brass 35
450	ABCD IKLM EFGH	Water Heaters 132 GPH/100 deg. rise coal htr. 70 GPH/100 deg. rise auto. gas storage type, 100 gallon, self contained tank 100 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1 no. 1 no. 1	650 783	CI 650 CI 30 Stl 729 Br 6 Zn 18
	ABCD EFGH ABCD E-M	100 gallon storage tank 66 gallon aux. storage tank Flue pipe, 24 gage Flue pipe, 24 gage	no. 1 no. 1 sf. 25 sf. 15	800 198 154 25 15	CI 300 Stl 488 Cu 8 Zn 4 Steel 180 Zinc 18 Steel 140 Zinc 14 Steel 25 Steel 15
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer	no. 1 no. 1 no. 1	1 1 1.5	Brass 1 Brass 1 CI 1 Brass 0.5
	ABCD	Auto. damper regulator	no. 1	11	CI 7 Steel 3 Brass 1
480	U	Black gas pipe & fittings Size 2" Size 3/4" Size 1" Size 1/2" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 25 lf. 15 lf. 12 lf. 10 lf. 72 no. 5	165 15 18	Steel 135 CI 30 Steel 15 Brass 18
500 540	A B C	HEATING Boiler - Hot Water Heating System 420° coal 920 sf net IBR (HW) 410° coal 1110 sf net IBR (HW) 0° coal 1280 sf net IBR (HW)	no. 1 no. 1 no. 1	2033 2033 2033	CI 2033 CI 2033 CI 2033

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540 Cont.	D	-10° & -20° coal 1470 sf net IBR (HW)	no. 1	2393	CI 2393
	EI	+20° oil & gas 920 sf net IBR (HW)	no. 1	2075	CI 2075
	FK	+10° oil & gas 1110 sf net IBR (HW)	no. 1	2075	CI 2075
	GL	0° oil & gas 1280 sf net IBR (HW)	no. 1	2075	CI 2075
	HM	-10° & -20° oil & gas 1470 sf net IBR (HW)	no. 1	2206	CI 2206
		Pipe 2" & 1-1/4" dia.	lf. 503	1406	Steel 1406
		Pipe 3/4" & 1/2" dia.	lf. 568	517	Steel 517
		Fittings 2", 1-1/2", 3/4", 1/2"	no. 302	408	CI 408
		valves 1-1/2" dia.	no. 2	36	Brass 36
		valves 3/4" & 1/2" dia.	no. 4	6	Brass 6
		Radiator valves 3/4", 1/2" 1/8" air	no. 78	39	Brass 39
		Flow control valve 1-1/2" dia.	no. 1	18	CI 17 Brass 1
	AEI	+20° radiator	sf. 688	3223	CI 3223
	BFK	+10° radiator	sf. 842	3959	CI 3959
	CGL	0° radiator	sf. 960	4512	CI 4512
	DHM	-10° & -20° radiator	sf. 1120	5253	CI 5253
		Hangers	no. 55	82	CI 6 Steel 76
	AEI	(+20° & +10° cir. 1-1/2" conn.	no. 1	57	CI 39 Stl 12 Br 6
	BFK	(0° & -20° circulator 2" conn.	no. 1	62	CI 42 Stl 13 Br 7
	CGL)				
	DHM)				
	AEI	Expansion tank	no. 1	62	Steel 62
	BFK	(			
	CGL	(Expansion tank	no. 1	72	Steel 72
	DHM	(			
550		Firing Equipment			
	EFCH	+20° to -20° oil burner	no. 1	155	CI 124 Stl 23 Cu 8
	IKL	+20° to 0° gas burner 336,000 Btu input	no. 1	256	CI 226 Stl 26 Cu 4
	M	-10° & -20° gas burner 672,000 Btu input	no. 1	292	CI 257 Stl 29 Cu 6
	EFCH	Oil lines 2", 1-1/4", 3/4" dia.	lf. 75	118	Steel 118
	EFCH	Oil line fittings and valves		44	CI 36 Brass 8
	EFCH	Reinforcement for 2000 gallon oil tank		30	Steel 30
560		Control Equipment			
		Thermostat	no. 1	3	Steel 2 Copper 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 20" flue conn.	lf. 14	198	Steel 198
600		HOUSEHOLD EQUIPMENT			
620		Electric refrigerators	no. 1		From frozen inventory
650		Electric hot plate	no. 1	20	Steel 18 Copper 2
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		Structure - Constant		1810	Steel 1810
		Electrical - Constant		70.8	Copper 70.8
		Plumbing - Constant		2363	Steel 2363
		variant U		135	Steel 135
		Heating - Constant		1923	Steel 1923
		Variant EGH		148	Steel 148

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Infirmary (2100) No Dental Office
Heating System: Forced Hot Water
Type Construction: Frame first floor - 1 story masonry & frame construction

- WPB Approved List -

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials Classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf 700	91	Steel 82, zinc 9
260		Sheet metal, flashings chimney only (If lead flashing is used, the total of 15 lbs. will change to.....)		15	Steel 14.2, zinc 0.8
				80	Lead 80)
280		Glazing points		3.6	Zinc 3.6
290		Builders hardware			
		Doors - outside	no. 4		
		Doors - inside	no. 38		
		Windows	no. 81		
		Exit bolts	no. 4		
		Fire door hardware	no. 2		
		Door closers	no. 14		
		Misc. (cab.& locker hardware)	no. 38		
		Total builders hardware		460	Steel 437, brass 23
		Rough hardware*			
		Nails, screws, etc.			
		Plain		2077	Steel 2077
		Galvanized		142	Steel 134.9 zinc 7.1
		*Under Rough Hardware, 85% of Steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 100A-3P-2B-SN	no. 1	22	Steel 18.7, copper 3.3
		Panelboards:			
		30A-1P Circuits	no. 12	27	Steel 24, copper 3
		Conductors (equiv. 1f. single wire)			
		#14 wire	1f 3000	38.5	Copper 38.5
		#12 wire	1f 155	3.1	Copper 3.1
		# 4 wire	1f 100	12.7	Copper 12.7
340		Outlet boxes (nonmetallic)	no 155		
350		Switches	no. 27	5.4	Steel 2.7, copper 2.7
		Receptacles	no. 30	6	Steel 3, copper 3
360		Straps misc.		12	Steel 12
370		Solder		3.2	Solder 3.2
380		Fixtures	no. 68	27.2	Steel 20.4, copper 6.8
390		Nurses' call system (30 outlets) (equipment only)	no. 1	18	Steel 9, copper 9
400		PLUMBING			
420		Fixtures - non-metallic			
		7 W.C., 20 Lavs, 1 S.S., 1 Tub			
		5 Sinks, 1 Util. Sink, 2 D.F.	no. 37		
		Fixture trim for above	no. 37	390	CI 307 Stl 27 Br 50 Rn 6

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4" size 3" size 2" Subtotal pipe & fittings (If lead is used for roughing make-up of soil pipe, the total of 3500 lbs. will change to Galv. steel pipe, size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 957 lbs. will change to Calking and flashing lead Misc. hangers, etc.	1f 150 1f 150 1f 155 1f 455 1f 255 1f 50 1f 305 to to 750 150	3500 3479 957 1022 750 150	CI 3500 CI 3374, Lead 105) <u>Steel 815</u> , CI 100, zinc 42 CI 124, Steel 722, Lead 138, Zn. 38) Lead 750 CI 30, steel 120
440		Galv. water pipe & fittings Pipe size 1-1/2" Pipe size 1-1/4" Pipe size 1" Subtotal pipe & fittings Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks Water Heaters	1f 40 1f 140 1f 75 1f 255 1f 165 1f 530 1f 160 1f 855 130 no. 11	730 913 130 35	<u>Steel 572</u> , CI 120, zinc 38 <u>Steel 700</u> , CI 172, zinc 41 CI 20, steel 110 Brass 35
450	ABCD ILMK EFGH ABCD EFGH ABCD E-M	132 GPH/100 deg rise coal htr 70 GPH/100 deg rise auto gas storage typen100 gallon self contained tank 100 GPH/100 deg rise auto oil storage type with 35 gallon self contained tank 100 gallon storage tank 66 gallon aux. storage tank Flue pipe, 24 gage Flue pipe, 24 gage	no. 1 no. 1 no. 1 no. 1 no. 1 sf. 25 sf. 15	650 783 800 198 154 25 15	CI 650 CI 30 Stl 729 Br 6 Zn 18 CI 300 Stl 488 Cu 8 Zn 4 Steel 180, zinc 18 Steel 140, zinc 14 Steel 25 Steel 15
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer Auto, damper regulator	no. 1 no. 1 no. 1 no. 1	1 1 1.5 11	Brass 1 Brass 1 CI 1, brass 0.5 CI 7, steel 3, brass 1
480	U U U	Black gas pipe & fittings Size 2" Size 1" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	1f 25 1f 12 1f 37 no. 3	133 10 15	<u>Steel 110</u> , CI 23 Steel 10 Brass 15
500 540	A B C	HEATING Boiler-Hot Water Heating Sys-tem +20° coal 920 sf net IBR (HW) +10° coal 1110 sf net IBR (HW) 0° coal 1280 sf net IBR (HW)	no. 1 no. 1 no. 1	2033 2033 2033	CI 2033 CI 2033 CI 2033

Crit. List No.	Var.	Critical Material PMR BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540	D	-10° & -20° coal 1470 sf net IBR (HW)	no. 1	2392	CI 2392
	EI	420° oil or gas 920 sf net IBR (HW)	no. 1	2075	CI 2075
	FK	410° oil or gas 1110 sf net IBR (HW)	no. 1	2075	CI 2075
	GL	0° oil or gas 1280 sf net IBR (HW)	no. 1	2075	CI 2075
	HM	-10° & -20° oil or gas 1470 sf net IBR (HW)	no. 1	2206	CI 2206
		Pipe 2" & 1-1/2" dia.	lf. 483	1352	Steel 1352
		Pipe 3/4" & 1/2" dia.	lf. 545	495	Steel 495
		Fittings 2", 1-1/2", 3/4", 1/2"	no. 288	389	CI 389
		Valves 1-1/2" dia.	no. 2	36	Brass 36
		Valves 3/4" & 1/2" dia.	no. 4	6	Brass 6
		Rad. Valves 3/4", 1/2" & 1/8" air	no. 74	37	Brass 37
		Flow control valves 1-1/2" dia.	no. 2	36	CI 34 brass 2
	AEI	420° radiator	sf. 663	3116	CI 3116
	BFK	-10° radiator	sf. 823	3868	CI 3868
	CGL	0° radiator	sf. 941	4422	CI 4422
	DEM	-10° & -20° radiator	sf 1072	5039	CI 5039
		Hangers	no. 55	82	CI 6 steel 76
	AEI	(420° & -10° circ. pump 1-1/2"	no. 1	57	CI 39 Stl 12 Br 6
	BFK	(			
	CGL	(0° to -20° circ. pump 2"	no. 1	62	CI 42 Steel 13 Brass 7
	DEM	(			
	AEI	Expansion tank	no. 1	62	Steel 62
	BFK	(			
	CGL	(Expansion tank	no. 1	72	Steel 72
	DEM	(			
		Firing Equipment			
	EFGH	420° to -20° oil burner	no. 1	155	CI 124 Steel 23 Cu 8
	IKL	420° to 0° gas burner 336,000 Btu input	no. 1	256	CI 226 steel 26 Cu 4
	M	-10° & -20° gas burner 672,000 Btu input	no. 1	292	CI 257 steel 29 Cu 6
	EFGH	Oil lines 2", 1-1/4", 3/4" dia.	lf. 75	118	Steel 118
	EFGH	Oil line fittings and valves		44	CI 36 Brass 8
	EFGH	Reinforcement for 2000 gallon oil tank		30	Steel 30
560		Control Equipment			
		Thermostat	no. 1	3	Steel 2, Cu 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 20" dia.	lf. 14	198	Steel 198
600		HOUSEHOLD EQUIPMENT			
620		Electric refrigerator	no. 1		From frozen inventory
650		Electric hot plate	no. 1	20	Steel 18, copper 2
		TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS			
		STRUCTURE - Constant		1880	Steel 1880
		ELECTRICAL - Constant		54.3	Copper 54.3
		PLUMBING - Constant		2087	Steel 2087
		Var. U		110	Steel 110
		HEATING - Constant		1847	Steel 1847
		Var. EGH		148	Steel 148

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1. Project Facilities Building: Infirmary (1500) With Dental Office
Heating System: Forced Hot Water
Type Construction: 1 story masonry and frame - frame first floor

- WPB Approved List -

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights indicate materials classed as "A" Products			
200		STRUCTURES			
240		Insect screen	sf 684	89	Steel 80, zinc 9
260		Sheet metal, flashings chimney only (If lead is used, the total of 15 lbs. will change to		15	Steel 14.2, zinc 0.8
				80	Lead 80)
280		Glazing points		3.2	Zinc 3.2
290		Builders Hardware			
		Doors - outside	no. 6		
		Doors - inside	no. 39		
		Windows	no. 65		
		Exit bolts	no. 4		
		Fire door	no. 1		
		Door closers	no. 15		
		Misc. (cab. & locker hardware)	no. 26		
		Total builders hardware		415	Steel 394, brass 21
		Rough Hardware*			
		Nails, bolts, etc.			
		Plain		1891	<u>Steel 1891</u>
		Galvanized		129	<u>Steel 122.5</u> , zinc 6.5
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN	no. 1	22	Steel 18.7, copper 3.3
		Panelboards - 30A-1P Circuits	no. 12	27	Steel 24, copper 3
330		Conductors (equiv. 1f. single wire)			
		#14 wire	1f 2900	37.3	<u>Copper 37.3</u>
		#12 wire	1f 540	10.8	<u>Copper 10.8</u>
		# 8 wire	1f 180	9	<u>Copper 9</u>
		# 4 wire	1f 100	12.7	<u>Copper 12.7</u>
340		Outlet boxes (nonmetallic)	no. 151		
350		Switches	no. 28	5.6	Steel 2.8, copper 2.8
		Receptacles	no. 35	7	Steel 3.5, copper 3.5
360		Straps		12.5	Steel 12.5
370		Solder		3.1	Solder 3.1
380		Fixtures	no. 64	25.6	Steel 19.2, copper 6.4
390		Nurses' call system (24 outlets) (equipment only)	no. 1	14.4	Steel 7.2, copper 7.2
400		PLUMBING			
420		Fixtures-nonmetallic - 6 W.C., 18 lavs., 1 S.S., 6 sinks, 2 D.F., 1 Util. sink & 1 tub	no. 35		
		Trim for above fixtures	no. 35	374	CI 270 Stl 33 Br 65 Ru 6
430		CI pipe & fittings, size 4"	1f. 115		
		size 3"	1f. 130		
		size 2"	1f. 155		
		Subtotal pipe & fittings	1f. 400	3187	CI 3187

Revised Oct. 15, 1943

With Dental Office

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		If lead is used for roughing make-up of soil pipe, the total of 3187 lbs. will change to		3191	CI 3100, Lead 91
		Galv. steel pipe size 1-1/2"	lf 285		
		size 1-1/4"	lf 50		
		Subtotal steel pipe	lf 335	1017	Steel 903, CI 67, zinc 47
		(If lead is used for roughing make-up of waste pipe, the total of 1017 lbs. will change to		1103	CI 88, Stl 850, Zn 44 Lead 121)
		Calking and flashing lead		685	
		Misc. hangers, etc.		145	CI 30, steel 115
440		Galv. water pipe & fittings			
		Pipe size 1-1/2"	lf 40		
		Pipe size 1-1/4"	lf 80		
		Pipe size 1"	lf 75		
		Subtotal pipe & fittings	lf 195	425	Steel 320, CI 80, zinc 25
		Pipe size 3/4"	lf 205		
		Pipe size 1/2"	lf 555		
		Pipe size 3/8"	lf 120		
		Subtotal pipe & fittings	lf 880	1020	Steel 780 CI 190 zinc 50
		Misc. hangers, etc.		130	CI 20, Steel 110
		Valves and cocks	no. 10	29	Brass 29
450		Water Heaters			
	ABCD	76 GPH/100 deg. rise coal htr.	no. 1	405	CI 405
	IKLM	70 GPH/100 deg. rise auto gas storage type, 100 gallon self contained tank	no. 1	783	CI 30 Stl 729 Br 6 Zn 18
	EFGH	100 GPH/100 deg. rise auto oil storage type with 35 gallon self contained tank	no. 1	800	CI 300 Stl 488 Cu 8 Zn 4
	ABCD	100 gallon storage tank	no. 1	198	Steel 180, zinc 18
	EFGH	66 gallon au. storage tank	no. 1	154	Steel 140, zinc 14
	ABCD	Flue pipe, 24 ga.	sf. 20	20	Steel 20
	E-M	Flue pipe, 24 ga.	sf. 15	15	Steel 15
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1, brass 0.5
	ABCD	Auto. damper regulator	no. 1	11	CI 7, Stl 3, brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 25		
		Pipe size 1"	lf. 12		
		Pipe size 3/4"	lf. 15		
		Pipe size 1/2"	lf. 10		
		Subtotal pipe & fittings	lf. 72	165	Steel 135, CI 30
	U	Misc. hangers, etc.		15	Steel 15
	U	Valves and cocks	no. 5	18	Brass 18
500		HEATING			
540		Boilers - Hot Water System			
	A	+20° coal 703 sf net IBR (HW)	no. 1	1665	CI 1665
	B	+10° coal 838 sf net IBR (HW)	no. 1	1665	CI 1665
	C	0° coal 977 sf net IBR (HW)	no. 1	2033	CI 2033
	D	-10° & -20° coal 1117 sf net IBR (HW)	no. 1	2033	CI 2033

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540	EI	‡20° oil or gas 703 sf net IBR (HW)	no. 1	1550	CI 1550
	FK	‡10° oil or gas 838 sf net IBR (HW)	no. 1	1550	CI 1550
	GL	0° oil or gas 977 sf net IBR (HW)	no. 1	2075	CI 2075
	HM	-10° & -20° oil or gas 1116 sf net IBR (HW)	no. 1	2075	CI 2075
		Pipe 2" & 1-1/4" dia.	lf. 478	1108	Steel 1108
		Pipe 3/4" & 1/2" dia.	lf. 517	469	Steel 469
		Fittings 2", 1-1/4", 3/4", 1/2" dia.	no. 252	339	CI 339
		Valves 1-1/4" dia.	no. 2	26	Brass 26
		Valves 3/4" & 1/2" dia.	no. 4	6	Brass 6
		Rad. valves 3/4", 1/2" & 1/8" air	no. 60	32	Brass 32
		Flow control valves	no. 1	4	Brass 4
	AEI	‡20° radiators	sf. 612	2876	CI 2876
	BFK	‡10° radiators	sf. 735	3454	CI 3454
	CGL	0° radiators	sf. 856	4025	CI 4025
	DHM	-10° & -20° radiators	sf. 956	4543	CI 4543
		Hangers	no. 50	75	CI 5, Steel 70
	AEI	(‡20° & ‡10° circ. pump 1-1/2"	no. 1	57	CI 39, Stl 12, Br 6
	BFK	(0°, -10° & -20° circ. pump 2"	no. 1	62	CI 42, Stl 13, Br 7
	CGL				
	DHM	Expansion tank	no. 1	72	Steel 72
	AEI	(			
	BFK	(Expansion tank	no. 1	62	Steel 62
	CGL	(			
550		Firing Equipment			
	EFQH	‡20° to -20° oil burner	no. 1	155	CI 124, Stl 23, Cu 8
	IK	‡20° to ‡10° gas burner 224,000 Btu input	no. 1	238	CI 210, Stl 24, Cu 4
	LV	0° to -20° gas burner 336,000 Btu input	no. 1	256	CI 226, Stl 26, Cu 4
	EFQH	Oil lines 2", 1-1/4", 3/4" dia.	lf. 75	118	Steel 118
	EFQH	Oil line fittings and valves		44	CI 36, Brass 8
	EFQH	Reinforcement for 2000 gal. oil tank		30	Steel 30
560		Control Equipment			
		Thermostat	no. 1	3	Steel 2, Copper 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 14" dia. flue conn.	lf. 14	140	Steel 140
600		HOUSEHOLD EQUIPMENT			
620		Electric Refrigerator	no. 1		From frozen inventory
650		Electric hot plate	no. 1	20	Steel 18, copper 2
TOTAL WEIGHTS OF CONTROLLED MATERIALS "A" PRODUCTS					
STRUCTURE - Constant				1715.0	Steel 1715.0
ELECTRICAL - Constant				69.8	Copper 69.8
PLUMBING - Constant				2003.0	Steel 2003.0
Var. U				135.0	Steel 135.0
HEATING - Constant				1577.0	Steel 1577.0
Var. EGH				148.0	Steel 148.0

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Infirmary (1500) No Dental Office
Heating System: Forced Hot Water
Type Construction: 1 story masonry and frame - frame first floor

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as, "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 654	85	Steel 76 Zinc 9
260		Sheet metal, flashings chimney only (If lead flashing is used, the total of 15 lbs. will change to)		15	Steel 14.2 Zinc 0.8
280		Glazing points		3	Lead 80) Zinc 3
290		Builders Hardware			
		Doors - outside	no. 6		
		Doors - inside	no. 36		
		Windows	no. 62		
		Exit bolts	no. 6		
		Fire door	no. 2		
		Door closers	no. 15		
		Misc. (cab. & locker hardware)	no. 26		
		Total builders hardware		483	Steel 459 Brass 24
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		1871	Steel 1871
		Galvanized		124	Steel 117.8 Zinc 6.2
		*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN	no. 1	22	Steel 18.7 Copper 3.3
		Panelboards: 30A-1P Circuits	no. 12	27	Steel 24 Copper 3
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 2800	36	Copper 36
		#12 wire	1f. 240	4.8	Copper 4.8
		# 4 wire	1f. 100	12.7	Copper 12.7
340		Outlet boxes (non-metallic)	no. 137		
350		Switches	no. 25	5	Steel 2.5 Copper 2.5
		Receptacles	no. 28	5.6	Steel 2.8 Copper 2.8
360		Straps		11.4	Steel 11.4
370		Solder		2.9	
380		Fixtures	no. 60	24	Steel 18 Copper 6
390		Nurses' call system (24 outlets) (equipment only)	no. 1	14.4	Steel 7.2 Copper 7.2
400		PLUMBING			
420		Fixtures - non-metallic - 6 w.c. 17 lavs., 1 s.s., 4 sinks, 1 util. sink, 2 d.f. & 1 tub	no. 32		
		Trim for above fixtures	no. 32	330	CI 255 Stl 24 Br 46 Ru 5

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe and fittings, size 4" size 3" size 2" Subtotal pipe and fittings (If lead is used for roughing make-up of soil pipe, the total of 3048 lbs. will change to. . . . Galv. steel pipe, size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 927 lbs. will change to. . . . Calking and flashing lead Misc. hangers, etc.	lf. 115 lf. 125 lf. 155 lf. 395 lf. 255 lf. 50 lf. 305 650 115	3048 3031 927 980 650 115	CI 3048 Steel 2940 Lead 91) Steel 815 CI 70 Zn 42 CI 88 Stl 745 Zn 39) Lead 108 Lead 650 CI 25 Steel 90
440		Galv. water pipe & fittings Pipe size 1-1/2" Pipe size 1-1/4" Pipe size 1" Subtotal pipe & fittings Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe and fittings Misc. hangers, etc. Valves and cocks	lf. 40 lf. 80 lf. 75 lf. 195 lf. 185 lf. 500 lf. 105 lf. 790 no. 10	425 920 125 29	Steel 320 CI 80 Zinc 25 Steel 710 CI 170 Zinc 40 CI 20 Steel 105 Brass 29
450	ABCD IKIM LFCH	Water Heaters 75 GPH/100 deg. rise coal htr. 70 GPH/100 deg. rise auto. gas storage type, 100 gallon self contained tank 100 G H/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1 no. 1	405 783	CI 405 CI 30 Stl 729 Br 6 Zn 18
	ABCD LFCH ABCD E-M	100 gallon storage tank 66 gallon storage tank Blue pipe, 24 ga. Blue pipe, 24 ga.	no. 1 no. 1 sf. 20 sf. 15	198 154 20 15	CI 300 Stl 488 Cu 8 Zn 4 Steel 180 Zinc 18 Steel 140 Zinc 14 Steel 20 Steel 15
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer Auto. damper regulator	no. 1 no. 1 no. 1 no. 1	1 1 1.5 11	Brass 1 Brass 1 CI 1 Brass 0.5 CI 7 Steel 3 Brass 1
480	U U U	Black gas pipe & fittings Pipe size 2" Pipe size 1" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 25 lf. 12 lf. 37 no. 3	133 10 15	Steel 110 CI 23 Steel 10 Brass 15
500 510	A B C D I	HEATING Boilers-Hot Water Heating System +20° coal 703 sf net IBR (HW) +10° coal 638 sf net IBR (HW) 0° coal 977 sf net IBR (HW) -10° & -20° coal 1117 sf net IBR(HW) +20° oil or gas 703 sf net IBR (HW)	no. 1 no. 1 no. 1 no. 1 no. 1	1665 1665 2033 2033 1550	CI 1665 CI 1665 CI 2033 CI 2033 CI 1550

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Comooosition of Weights Lbs.
540 Cont.	FK	+10° oil or gas 838 sf net IBR (HW)	no. 1	1550	CI 1550
	GL	0° oil or gas 977 sf net IBR (HW)	no. 1	2075	CI 2075
	HM	-10° & -20° oil or gas 1117 sf net IBR (HW)	no. 1	2075	CI 2075
		Pipe 2" & 1-1/4" dia.	lf. 450	1062	Steel 1062
		Pipe 3/4" & 1/2" dia.	lf. 498	446	Steel 446
		Fittings 2", 1-1/4", 3/4", 1/2" dia.	no. 240	324	CI 324
		valves 1-1/4" dia.	no. 2	26	Brass 26
		Valves 3/4" & 1/2" dia.	no. 4	6	Brass 6
		Rad. valves 3/4", 1/2", 1/8"	no. 56	30	Brass 30
		Flow control valve 1-1/4" dia.	no. 1	4	Brass 4
	AEI	+20° radiator	sf. 587	2756	CI 2756
	BFK	+10° radiator	sf. 703	3304	CI 3304
	CGL	0 radiator	sf. 821	3859	CI 3859
	DHM	-10 & -20° radiator	sf. 928	4362	CI 4362
		Hangers	no. 50	75	CI 5 Steel 70
	AEI	(+20° & +10° circulator			
	BFK	(1-1/2" connection	no. 1	57	CI 39 Stl 12 Br 6
	CGL)				
	DHM)	0°, -10° & -20° circ. 2" conn.	no. 1	62	CI 42 Stl 13 Br 7
550	AEI	(			
	BFK	(			
	CGL	(Expansion tank	no. 1	62	Steel 62
	DHM	Expansion tank	no. 1	72	Steel 72
		Heating Equipment			
	EFGH	+20° to -20° oil burner	no. 1	155	CI 124 Stl 23 Cu 8
	IK	+20° & +10° gas burner 224,000 Btu input	no. 1	238	CI 216 Stl 24 Cu 4
	LM	0° to -20° gas burner 336,000 Btu input	no. 1	256	CI 226 Stl 26 Cu 4
	EFGH	Oil lines 2", 1-1/4", 3/4" dia.	lf. 75	118	Steel 118
	EFGH	Oil line fittings and valves		44	CI 36 Brass 8
560	EFGH	Reinforcement for 2000 gal. oil tank		30	Steel 30
		Control Equipment			
		Thermostat	no. 1	3	Steel 2 Copper 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 14" dia. flue conn.	lf. 14	140	Steel 140
600		HOUSEHOLD EQUIPMENT			
620		Electric refrigerator	no. 1		from frozen inventory
650		Electric hot plate	no. 1	20	Steel 18 Copper 2

TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS

Structure - Constant	1700	Steel 1700
Electrical-Constant	53.5	Copper 53.5
Plumbing - Constant	1845	Steel 1845
Variant U	110	Steel 110
Heating - Constant	1508	Steel 1508
Variant EGH	148	Steel 148

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Infirmery (1000)
Heating System: Forced Hot Water
Type Construction: Frame first floor - 1 story masonry and frame

-WFB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 500	65	Steel 58 Zinc 7
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 15 lbs. will change to)		15	Steel 14.2 Zinc 0.8
280		Glazing points		2.4	Lead 80) Zinc 2.4
290		Builders hardware			
		Doors - outside	no. 4		
		Doors - inside	no. 29		
		Windows	no. 44		
		Exit bolts	no. 3		
		Fire door	no. 1		
		Door closers	no. 7		
		Misc. (cab. & locker hardware)	no. 9		
		Total builders hardware		279	Steel 265 Brass 14
		Rough hardware			
		Nails, screws, etc.			
		Plain		1227	Steel 1227
		Galvanized		84	Steel 80.8 Zinc 4.2
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	no. 1	9.6	Steel 8.6 Copper 1
		Panelboards: 30A-1P Circuits	no. 8	18	Steel 16 Copper 2
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 2200	28.7	Copper 28.7
		#12 wire	1f. 440	8.8	Copper 8.8
		# 6 wire	1f. 100	8	Copper 8
340		Outlet boxes (non-metallic)	no. 103		
350		Switches	no. 21	4.2	Steel 2.1 Copper 2.1
		Receptacles	no. 21	4.2	Steel 2.1 Copper 2.1
360		Straps		8.5	Steel 8.5
370		Solder		2	
380		Fixtures	no. 45	18	Steel 13.5 Copper 4.5
390		Nurses' call system (16 outlets) (equipment only)	no. 1	9.6	Steel 4.8 Copper 4.8
400		PLUMBING			
420		Fixtures - non-metallic - 5 w.c., 10 lavs., 1 s.s., 4 sinks, 1 util. sink, 1 d.f., & 1 tub	no. 23		
		Trim for above fixtures	no. 23	277	CI 214 Stl 40 Br 18 Ru 5

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4"	1f. 75		
		size 3"	1f. 70		
		size 2"	1f. 55		
		Subtotal pipe & fittings	1f. 200	1746	CI 1746
		(If lead is used for roughing make-up of soil pipe, the total of 1746 lbs. will change to . . .		1731	CI 1655 Lead 76)
		Galv. steel pipe, size 1-1/2"	1f. 245		
		size 1-1/4"	1f. 55		
		Subtotal steel pipe	1f. 300	980	Steel 780 CI 160 Zn 40
		(If lead is used for roughing make-up of waste pipe, the total of 980 lbs. will change to . . .		1062	CI 176 Stl 763 Zinc 37 Lead 86)
		Calking and flashing lead		430	Lead 430
		Misc. hangers, etc.		100	CI 20 Steel 30
440		Galv. water pipe & fittings			
		Size 1-1/2"	1f. 35		
		Size 1-1/4"	1f. 70		
		Size 1"	1f. 65		
		Subtotal pipe & fittings	1f. 170	397	Steel 310 CI 69 Zn 18
		Pipe size 3/4"	1f. 164		
		Pipe size 1/2"	1f. 420		
		Pipe size 3/8"	1f. 90		
		Subtotal pipe & fittings	1f. 674	720	Steel 560 CI 129 Zn 31
		Misc. hangers, etc.		80	CI 10 Steel 70
		Valves and cocks	no. 7	17	Brass 17
450		Water Heaters			
	ABCD	50 GPH/100 deg. rise coal htr.	no. 1	270	CI 270
	IKLM	50 GPH/100 deg. rise auto. gas storage type, 65 gallon, self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 11
	EFGH	100 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	800	CI 300 Stl 488 Cu 8 Zn 1
	ABCD	82 gallon storage tank	no. 1	181	Steel 165 Zinc 16
	ABCD	Flue pipe, 20 gage		20	Steel 20
	E-M	Flue pipe, 20 gage		15	Steel 15
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	Brass 0.5 CI 1
	ABCD	Auto. damper regulator	no. 1	11	CI 7 Steel 3 Brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	1f. 25		
		Pipe size 3/4"	1f. 10		
		Subtotal pipe & fittings	1f. 35	125	Steel 105 CI 20
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 3	14	Brass 14
500		HEATING			
540		Boiler-Hot Water Heating System			
	A	420° coal 636 sf net IBR (HW)	no. 1	1665	CI 1665
	B	410° coal 762 sf net IBR (HW)	no. 1	1665	CI 1665
	C	0° coal 890 sf net IBR (HW)	no. 1	2033	CI 2033
	D	-10° & -20° coal 1008 sf net IBR (HW)	no. 1	2033	CI 2033
	EI	420° oil or gas 636 sf net IBR (HW)	no. 1	1550	CI 1550
	FK	410° oil or gas 762 sf net IBR (HW)	no. 1	1550	CI 1550

Crit List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540	GL	0° oil or gas 890 sf net IPR (HW)	no. 1	2075	CI 2075
	HM	-10° & -20° oil or gas 1002 sf net IPR (HW)	no. 1	2075	CI 2075
	AEI	Pipe 1-1/2" dia. mains	lf. 290	795	Steel 795
	BOD	(			
	FGH	(Pipe 2" dia. mains	lf. 290	1060	Steel 1060
	KLM	(			
		Pipe 3/4" & 1/2" dia.	lf. 315	310	Steel 310
		Fittings 2" or 1-1/2", 3/4", 1/2" dia.	no. 193	263	CI 263
		Valves 2" or 1-1/2" dia.	no. 1	15	CI 24 Copper 1
		Valves 3/4" & 1/2" dia.	no. 4	6	Brass 3
		Red. valves 3/4", 1/2", 1/8" air	no. 44	25	Brass 15
		Flow control valve 2" or 1-1/2" dia.	no. 1	22	CI 20 Brass 2
	AEI	+20° radiator	sf. 538	2530	CI 2530
	BFK	+10° radiator	sf. 345	3030	CI 3030
	CGL	0° radiator	sf. 754	3550	CI 3550
	DHM	-10° & -20° radiator	sf. 853	4010	CI 4010
		Hangers	no. 30	45	CI 3 Steel 42
	AEI	+20° circulator 1-1/2" conn.	no. 1	57	CI 39 Steel 12 Brass 6
	BFK	(			
	CGL	(+10°, 0°, -10° & -20° circ.			
	DHM	(2" conn.	no. 1	62	CI 42 Stl 13 Br 7
	DHM	Expansion tank	no. 1	72	Steel 72
	AEI	(			
	BFK	(Expansion tank	no. 1	62	Steel 62
	CGL	(			
550		Firing Equipment			
	EFCH	+20° to -20° oil burner	no. 1	155	CI 124 Steel 23 Cu 8
	IK	+20° & +10° gas burner	no. 1	238	CI 210 Steel 24 Cu 4
	LM	0° to -20° gas burner	no. 1	256	CI 226 Steel 26 Cu 4
	EFCH	Oil lines 2", 1-1/2", 3/4" dia.	lf. 75	118	Steel 118
	EFCH	Oil lines fittings & valves		44	CI 36 Brass 8
	EFCH	Reinforcement for 2000 gallon oil tank		30	Steel 30
560		Control Equipment			
		Thermostat	no. 1	3	Steel 2 Copper 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 9" dia. flue conn.	lf. 10	46	Steel 46
600		HOUSEHOLD EQUIPMENT			
620		Electric refrigerator	no. 1		From frozen inventory
650		Electric hot plate	no. 1	20	Steel 18 Copper 2
		When Infirmary is built separate, and does not have Cafeteria nearby <u>DEDUCT</u> the following:-			
420		Fixture trim - 1 sink	no. 1	10	CI 9 Br 0.6 Ru 0.4
650		Electric Hot Plate	no. 1	20	Steel 18 Cu 2
		<u>ADD</u> the following:-			
210		Reinforcing steel mesh		5	Steel 5
290		Builders Hardware		5	Steel 5
		Rough Hardware		5	Steel 5
420		Fixture Trim - 1 Double Compartment			
		Sink	no. 1	19	CI 16 Stl 1 Br 1 Ru 1
650	U	Gas Range	no. 1	21	CI 25 Stl 65 Cu 1
	V	Coal Range	no. 1	350	CI 300 Steel 50
	W	Kerosene Range	no. 1	137	CI 30 Steel 105 Cu 2
		Flue Connection			
	v	For Coal Range 7" dia.	lf. 5	15	Steel 15

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS			
		STRUCTURE - Constant		1110	Steel 1110
		ELECTRICAL - Constant		45.5	Copper 45.5
		PLUMBING - Constant		1650	Steel 1650
		Variant U		105	Steel 105
		HEATING - For 420° Zones		1105	Steel 1105
		For Zones of 410°			
		or colder		1370	Steel 1370
		Variant EFCH		148	Steel 148

CRITICAL MATERIAL LIST
for
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Infirmary (650)
Heating System: Forced Hot Water
Type Construction: One story masonry and frame - frame first floor

- WPE Approved List -

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 470	61	Steel 55.0, zinc 6.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 15 lbs. will change to -----)		15	Steel 14.2, zinc 0.8
				80	Lead 80)
280		Glazing points		1.8	Zinc 1.8
290		Builders Hardware			
		Doors - outside	no. 4		
		Doors - inside	no. 27		
		Windows	no. 37		
		Exit bolts	no. 3		
		Fire door	no. 1		
		Door closers	no. 7		
		Misc. (cab. & locker hardware	no. 6		
		Total builders hardware		267	Steel 254, brass 13
		Rough Hardware *			
		Nails, screws, etc.			
		Plain		1070	Steel 1070
		Galvanized		73	Steel 69.3, zinc 3.7
		*Under Rough Hardware, 85% of Steel is classed as "A" Products			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	no. 1	9.6	Steel 8.6, copper 1
		Panelboards - 30A-1P circuits	no. 8	18	Steel 16, copper 2
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	lf 2000	25.7	Copper 25.7
		#12 wire	lf 440	8.8	Copper 8.8
		# 6 wire	lf 100	8	Copper 8
340		Outlet boxes (nonmetallic)	no. 92		
350		Switches	no. 21	4.2	Steel 2.1, copper 2.1
		Receptacles	no. 19	3.8	Steel 1.9, copper 1.9
360		Straps, misc.		7.7	Steel 7.7
370		Solder		2	
380		Fixtures	no. 40	16	Steel 12, copper 4
390		Nurses' call system (12 outlets) (equipment only)	no. 1	7.2	Steel 3.6, cu 3.6
400		PLUMBING			
420		Fixtures - nonmetallic - 5 W.C., 8 lavs., 1 s.s., 4 sinks, 1 util. sink, 1 D.F. and 1 tub	no. 21		
		Trim for above fixtures	no. 21	250	CI 190 Stl 40 Br 16 Ru 4
430		CI pipe & fittings size 4"	lf. 76		
		size 3"	lf. 71		
		size 2"	lf. 55		
		Subtotal pipe & fittings (If lead is used for roughing make-up of soil pipe, the total	lf. 202	1940	CI 1940

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430 (Cont.)		Galv. steel pipe size 1-1/2"	lf. 235		
		size 1-1/4"	lf. 55		
		Subtotal steel pipe	lf. 190	845	Steel 745 CI 60 Zn 40
		(If lead is used for roughing make-up of waste pipe, the total of 845 lbs. will change to -----)		880	CI 73 Steel 694 Zn 37)
		Calking & flashing lead		410	Lead 410 Lead 76
		Misc. hangers, etc.		90	CI 10, steel 80
440		Galv. water pipe & fittings			
		Pipe size 1-1/2"	lf. 50		
		Pipe size 1-1/4"	lf. 60		
		Pipe size 1"	lf. 55		
		Subtotal pipe & fittings	lf. 165	346	Steel 270 CI 59 Zn 17
		Pipe size 3/4"	lf. 130		
		Pipe size 1/2"	lf. 310		
		Pipe size 3/8"	lf. 80		
		Subtotal pipe & fittings	lf. 520	554	Steel 430 CI 100 Zn 24
		Misc. hangers, etc.		70	CI 10 Steel 60
		Valves and cocks	no. 7	15	Brass 15
450		Water Heaters			
	ABCD	50 GPH/100 deg. rise coal htr.	no. 1	270	CI 270
	IKLM	50 GPH/100 deg. rise auto. gas storage type, 65 gallon, self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EF GH	100 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	800	CI 300 Stl 488 CU 8 Zn 4
	ABCD	82 gallon storage tank	no. 1	181	Steel 165 Zn 16
	ABCD	Flue pipe, 20 ga.		18	Steel 18
	E-M	Flue pipe, 24 ga.		13	Steel 13
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1 Brass 0.5
	ABCD	Auto. damper regulator	no. 1	11	CI 7, steel 3, brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 25		
		Pipe size 1"	lf. 10		
		Subtotal pipe & fittings	lf. 35	125	Steel 105, CI 20
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 3	14	Brass 14
500		HEATING			
540		Boiler-Hot Water Heating System			
	A	+20° coal 485 sf net IBR (HW)	no. 1	1275	CI 1275
	B	+10° coal 585 sf net IBR (HW)	no. 1	1665	CI 1665
	C	0° coal 680 sf net IBR (HW)	no. 1	1665	CI 1665
	D	-10° & -20° coal sf net IBR (HW)	no. 1	1665	CI 1665
	EI	+20° oil or gas 485 sf net IBR (HW)	no. 1	1000	CI 1000
	FK	+10° oil or gas 585 sf net IBR (HW)	no. 1	1550	CI 1550
	GL	0° oil or gas 680 sf net IBR (HW)	no. 1	1550	CI 1550
	HM	-10° & -20° oil or gas 770 sf net IBR (HW)	no. 1	1550	CI 1550
		Pipe 1-1/2" dia.	lf. 255	695	Steel 695
		Pipe 3/4" & 1/2" dia.	lf. 298	272	Steel 272
		Fittings 1-1/2", 3/4", 1/2" dia.		190	CI 190
		Valves 1-1/2" dia.	no. 1	18	Brass 18
		Valves 3/4" & 1/2" dia.	no. 3	5	Brass 5
		Rad. valves 3/4", 1/2" & 1/8" air	no. 42	23	Brass 23
		Flow control valve 1-1/2" dia.	no. 1	18	CI 17, brass 1

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
540 (Cont.)	AEI	+20° radiator	sf. 385	1815	CI 1815
	BFK	+10° radiator	sf. 450	2115	CI 2115
	CGL	0° radiator	sf. 520	2450	CI 2450
	DEM	-20° & - 10° radiator	sf. 595	2800	CI 2800
		Hangers	no. 30	45	CI 3, steel 42
		+20° to -20° cir. 1-1/2" conn.	no. 1	57	CI 39, steel 12, brass 6
		Expansion tank	no. 1	62	Steel 62
550		Firing Equipment			
	EF	(			
	GH	(+20° to -20° oil burner	no. 1	155	CI 124, Stl 23, Cu 8
	I	+20° gas burner 168,000 Btu input	no. 1	208	CI 183, Stl 21, Cu 4
	KLM	+10° to - 20° gas burner 224,000 Btu input	no. 1	238	CI 210, Stl 24, Cu 4
	EF	(			
	GH	(Oil lines 2", 1-1/4", 3/4" dia.	lf. 75	118	<u>Steel 118</u>
	EF)				
	GH)	Oil line fittings & valves		44	CI 36, brass 8
	EPGH	Reinforcement for 1000 gal. oil tank		15	<u>Steel 15</u>
560		Control Equipment			
		Thermostat	no. 1	3	Steel 2, copper 1
		Pressure reducing valve	no. 1	3	Brass 3
		Pressure relief valve	no. 1	3	Brass 3
570		Breeching 9" dia. flue conn.	lf. 10	46	Steel 46
600		HOUSEHOLD EQUIPMENT			
620		Electric refrigerator	no. 1		From frozen inventory
650		Electric hot plate	no. 1	20	Steel 18, copper 2
		When Infirmary is built separate, and does not have Cafeteria nearby <u>Deduct</u> the following:			
420		Fixture Trim - 1 sink	no. 1	10	CI 9, BR 0.6, Ru 0.4
650		Electric Hot Plate	no. 1	20	Steel 18, Copper 2
		<u>Add</u> the following:			
210		Reinforcing Steel Mesh		5	Steel 5
290		Builders Hardware		5	Steel 5
		Rough Hardware		5	Steel 5
420		Fixture Trim - 1 Double comp.sink	no. 1	19	CI 16 Steel 1 Br 1 Ru 1
650	U	Gas Range	no. 1	91	CI 25 Steel 65 Copper 1
	V	Coal Range	no. 1	350	CI 300, Steel 50
	W	Kerosene Range	no. 1	137	CI 30 Steel 105 Copper 2
		Flue Connection			
	V	For Coal Range, 7" dia.	lf. 5	15	Steel 15
		TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS			
		STRUCTURE - Constant		970	Steel 970
		ELECTRICAL - Constant		42.5	Copper 42.5
		PLUMBING - Constant		1445	Steel 1445
		Var. U		105	Steel 105
		HEATING - Constant		967	Steel 967
		Var. EGH		133	Steel 133

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Morale Activities (2100)
Heating System: Forced Warm Air
Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf 2370	308	Steel 277.0 zinc 31.0
260		Sheet metal, flashings, chimney only		15	Steel 14.2 zinc 0.8
		(If lead flashing is used, the total of 15 lbs will change to -	- - - -	80	Lead 80)
280		Glazing Points		8.4	Zinc 8.4
290		Builders hardware			
		Doors - outside	no. 22		
		Doors - inside	no. 52		
		Windows	no. 95		
		Exit bolts	no. 30		
		Fire door	no. 4		
		Door closers	no. 32		
		Folding doors, track etc.	no. 24		
		Projection room port-shutters and track	no. 6		
		Misc. (cab. & locker hardware)	no. 12		
		Total builders hardware		1828	Steel 1737 brass 91
		Rough Hardware*			
		Nails, screws, etc. plain		6594	Steel 6594
		Galvanized		451	Steel 428.4, brass 22.6
		*Under Rough Hardware, 85% of Steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 400A-4P-3B & SN	no. 1	115.2	Steel 102, copper 13.2
		Panelboards:			
		30A - 1P Circuits	no. 6	13.5	Steel 12, copper 1.5
		30A - 1P Circuits	no. 24	54	Steel 48, copper 6
		30A - 1P Circuits	no. 4	9	Steel 8, copper 1
		30A - 1P Circuits	no. 2	10.2	Steel 9.2, copper 1
		30A - 3P Circuits	no. 2	10.2	Steel 9.2, copper 1
		60A - 3P Circuits	no. 1	9.6	Steel 8.6, copper 1
		100A - 3P Circuits	no. 2	44	Steel 37.4, copper 6.6
330		Conductors (equiv. 1. f. single wire) - #14 wire	1f 5850	75.2	Copper 75.2
		#12 wire	1f 2590	51.6	Copper 51.6
		# 8 wire	1f 280	14	Copper 14
		# 4 wire	1f 280	35.5	Copper 35.5
		# 0 wire	1f 575	184	Copper 184
		#250 MCM	1f 140	108	Copper 108
		Rigid conduit, 1/2"	1f 980	837	Steel 837
340		Outlet boxes - nonmetallic	no. 189		
		Outlet boxes - metallic	no. 65	65	Steel 65

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
350		Switches	no. 43	8.5	Steel 4.5 copper 4.0
		Receptacles	no. 43	8.5	Steel 4.5 copper 4.0
360		Straps, misc.		33.5	Steel 33.5
370		Solder		5.5	Solder 5.5
380		Fixtures	no. 173	69.2	Steel 51.8 copper 17.4
400		PLUMBING			
420		Fixtures - nonmetallic - 11 W.C. 3 Ur., 9 Lavs. & 1 S. S.	no. 24		
		Trim for above fixtures	no. 24	223	CI 186 Stl 22 Br 10 Ru 5
430		CI pipe & fittings - size 4"	lf. 50		
		size 3"	lf. 60		
		size 2"	lf. 115		
		Subtotal pipe & fittings	lf. 225	1560	CI 1560
		Galv steel pipe - size 1-1/2"	lf. 65		
		size 1-1/4"	lf. 5		
		Subtotal steel pipe	lf. 70	235	Stl 185 CI 40 Zn 10
		(If lead flashing is used for roughing make-up of waste pipe, the total of 235 lbs. will change to - - - - -		273	CI 55 Stl 90 Zn 6 Lead 122)
		Calking and flashing lead		325	Lead 325
		Misc. hangers, etc.		90	CI 15 steel 85
440		Galv. water pipe & fittings			
		Pipe size 1-1/2"	lf. 10		
		Pipe size 1-1/4"	lf. 25		
		Pipe size 1"	lf. 5		
		Subtotal pipe & fittings	lf. 40	100	Steel 77 CI 18 zinc 5
		Pipe size 3/4"	lf. 190		
		Pipe size 1/2"	lf. 140		
		Pipe size 3/8"	lf. 95		
		Subtotal pipe & fittings	lf. 425	377	Steel 290 CI 70 Zinc 17
		Misc. hangers, etc.		40	CI 10 steel 30
		Valves and cocks	no. 2	9	Brass 9
450		Water Heaters			
	ACD	50 GPH/100 deg. rise coal htr.	no. 1	270	CI 270
	ILM	45 GPH/100 deg. rise auto. gas storage type, 65 gallon self contained storage tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EGH	100 GPH/100 deg. rise auto. oil storage type, 35 gallon self contained tank	no. 1	800	CI 300 Stl 488 Cu 8 Zn 4
	ACD	82 gallon storage tank	no. 1	181	Steel 165 zinc 16
	ACD	Flue pipe, 25 gage	sf. 15	15	Steel 15
	ILM	(			
	EGH	(Flue pipe, 24 gage	sf. 12	12	Steel 12
460		Control equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	Brass 0.5 CI 1
	ACD	Auto. damper regulator	no. 1	11	CI 7 steel 3 brass 1
480	U	Black gas pipe & fittings			
		size 2"	lf. 25		
		size 1"	lf. 25		
		Subtotal pipe & fittings	lf. 50	175	Steel 140 CI 35

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	GL	0° oil or gas 635,000 Btu	no. 1	4875	CI 4375 Steel 500
	CL	0° oil or gas 575,000 Btu	no. 1	4025	CI 3625 Steel 400
	HM	-20° oil or gas 710,000 Btu	no. 1	5625	CI 5065 Steel 560
	HF	-20° oil or gas 630,000 Btu	no. 1	4875	CI 4375 Steel 500
		Blower 10,500 CFM	no. 1	640	CI 40 Steel 600
		Blower 8,000 CFM	no. 1	640	CI 40 Steel 600
		Motor 3 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Motor 2 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Duct, metal allowed for ftgs., fastenings, hangers, etc.			
		3 l.f. at furnace relief duct		2100	Steel 2100
		Registers and grilles	no. 25	380	Steel 380
		Ceiling diffusers	no. 7	28	Steel 28
		Firing Equipment			
	E	+15° oil burner 5 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	E	+15° oil burner 6 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	G	0° oil burner 7 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	C	0° oil burner 6 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 7 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	I	-20° oil burner 7 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	I	+15° gas burner 784,000 Btu input	no. 1	311	CI 274 Stl 31 Cu 6
	I	+15° gas burner 896,000 Btu input	no. 1	331	CI 291 Stl 33 Cu 7
	L	0° gas burner 896,000 Btu input	no. 1	331	CI 291 Stl 33 Cu 7
	L	0° gas burner 896,000 Btu input	no. 1	331	CI 291 Stl 33 Cu 7
	M	-20° gas burner 1,120,000 Btu input	no. 1	451	CI 397 Stl 45 Cu 9
	M	-20° gas burner 896,000 Btu input	no. 1	331	CI 291 Stl 33 Cu 7
	EGH	Oil lines 2" & 3/4"	lf. 90	180	Steel 180
	EGH	Oil line fittings and valves		51	CI 39 Copper 12
	EGH	Reinforcement for 3000 gallon oil tank		45	Steel 45
560		Control Equipment			
		Relays	no. 2	14	Steel 12 Copper 2
		Damper motors	no. 6	48	Steel 42 Copper 6
		Thermostats	no. 8	24	Steel 22 Copper 2
570		Breeching, flue conn. 22" dia.	lf. 44	700	Steel 700
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		3940	Steel 3940
		ELECTRICAL - Constant		932.2	Steel 574 Copper 358.2
		PLUMBING - Constant		512	Steel 512
		Variant U		140	Steel 140
		HEATING - Constant		2100	Steel 2100
		Variant EGH		225	Steel 225

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total wts. Lbs.	Composition of Weights Lbs.
400		PLUMBING			
420		Fixtures - non-metallic			
		8 H.C., 8 Lavs., 2 Ur. & 1 S.S.	no. 19		
		Trim for above fixtures	no. 19	176	CI 145 Stl 19 Br 8 Ru 4
430		CI pipe & fittings, size 4"	lf. 40		
		size 3"	lf. 60		
		size 2"	lf. 115		
		Subtotal pipe & fittings	lf. 215	1480	CI 1480
		Galv. steel pipe, size 1-1/2"	lf. 60	198	Steel 160 CI 30 Zn 8
		(If lead is used for roughing make-up of waste pipe, the total of 198 lbs. will change to. . . .		224	CI 42 Stl 86 Zn 4 Lead 92)
		Calking and flashing lead		300	Lead 300
		Misc. hangers, etc.		85	CI 10 Steel 75
440		Galv. water pipe & fittings			
		Size 1-1/2"	lf. 10		
		Size 1-1/4"	lf. 25		
		Size 1"	lf. 5		
		Subtotal pipe & fittings	lf. 40	100	Steel 77 CI 18 Zn 5
		Size 3/4"	lf. 190		
		Size 1/2"	lf. 120		
		Size 3/8"	lf. 75		
		Subtotal pipe & fittings	lf. 385	355	Steel 275 CI 65 Zn 15
		Misc. hangers, etc.		35	CI 10 Steel 25
		Valves and cocks	no. 2	9	Brass 9
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 65 gallon self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI 200 Stl 328 CU 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140 Zinc 14
	ACD	Flue pipe, 24 gage	sf. 10	10	Steel 10
	EGH	(Flue pipe, 24 gage	sf. 8	8	Steel 8
	ILM				
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	Brass 0.5 CI 1
	ACD	Auto. damper regulator	no. 1	11	CI 7 Steel 3 Brass 1
480	U	Black gas pipe & fittings			
		Size 2"	lf. 25		
		Size 1"	lf. 25		
		Subtotal pipe & fittings	lf. 50	175	Steel 140 CI 35
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 4	17	Brass 17
500		HEATING			
530		Heaters - Warm Air Furnace			
	A	+15° coal 500,000 Btu	no. 1	2957	CI 2800 Steel 157
	A	+15° coal 550,000 Btu	no. 1	4225	CI 3825 Steel 400
	B	0° coal 635,000 Btu	no. 1	5100	CI 4600 Steel 500
	B	0° coal 575,000 Btu	no. 1	4225	CI 3825 Steel 400
	D	-20° coal 710,000 Btu	no. 1	5900	CI 5340 Steel 560
	D	-20° coal 630,000 Btu	no. 1	5100	CI 4600 Steel 500
	EI	+15° oil or gas 500,000 Btu	no. 1	2797	CI 2640 Steel 157
	EI	+15° oil or gas 550,000 Btu	no. 1	4025	CI 3625 Steel 400

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Morale Activities (1000)
Heating System: Forced warm air
Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf.1572	204.2	Steel 183.8 Zinc 20.4
260		Sheet metal, flashings, chimneys only (If lead flashing is used, the total of 15 lbs. will change to)		15	Steel 14.2 Zinc 0.5
280		Glazing points		. 80	Lead 80)
290		Builders hardware		6.5	Zinc 6.5
		Doors - outside	no. 20		
		Doors - inside	no. 45		
		Windows	no. 149		
		Exit bolts	no. 28		
		Fire doors	no. 2		
		Door closers	no. 30		
		Folding doors, track etc.	no. 16		
		Misc. (cab. & locker hardware (under stage closets)	no. 12		
		Total builders hardware		1290	Steel 1225 Brass 65
		Rough hardware*			
		Nails, screws, etc.			
		Plain		4355	Steel 4355
		Galvanized		258	Steel 283 Zinc 15
		*Under Rough Hardware, 85% of steel is classes as "A" Product			
300		ELECTRICAL			
320		Entrance 200A-4P-3B & SN	no. 1	60	Steel 45 Copper 15
		Panelboards:			
		30A - 1P Circuits	no. 14	36	Steel 32 Copper 4
		30A - 1P "	no. 12	27.0	Steel 24 Copper 3
		30A - 1P "	no. 2	9	Steel 8 Copper 1
		60A - 3P "	no. 2	19.2	Steel 17.2 Copper 2
		100A - 3P "	no. 1	21.9	Steel 18.6 Copper 3.3
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf.4700	60.5	Copper 60.5
		#12 wire	lf.1140	22.7	Copper 22.7
		# 6 wire	lf. 500	32	Copper 32
		# 0 wire	lf. 540	172	Copper 172
		#0000 wire	lf. 140	71	Copper 71
		Rigid conduit 1/2"	lf. 670	574	Steel 574
340		Outlet boxes (non-metallic)	no. 123		
		Outlet boxes (metallic)	no. 63	63	Steel 63
350		Switches	no. 36	7.1	Steel 3.8 Copper 3.3
		Receptacles	no. 32	6.3	Steel 3.4 Copper 2.9
360		Straps, misc.		28	Steel 28
370		Solder		3.9	Solder 3.9
380		Fixtures	no. 123	51.8	Steel 36.5 Copper 15.3

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Lbs.	Composition of Weights Lbs.
550	C	0° coal 860,000 Btu	no. 1	7730	CI 7080 Steel 650
	D	-20° coal 830,000 Btu	no. 1	7730	CI 7080 Steel 650
	D	-20° coal 920,000 Btu	no. 1	7730	CI 7080 Steel 650
	EI	+15° oil or gas 590,000 Btu	no. 1	4875	CI 4375 Steel 500
	EI	+15° oil or gas 820,000 Btu	no. 1	7410	CI 6760 Steel 650
	GL	0° oil or gas 750,000 Btu	no. 1	5625	CI 5065 Steel 560
	GL	0° oil or gas 860,000 Btu	no. 1	7410	CI 6760 Steel 650
	HM	-20° oil or gas 860,000 Btu	no. 1	7410	CI 6760 Steel 650
	HM	-20° oil or gas 920,000 Btu	no. 1	7410	CI 6760 Steel 650
		Blowers CFM 10,500	no. 1	640	CI 40 Steel 600
		Blowers CFM 8,000	no. 1	640	CI 40 Steel 600
		Motor 3 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Motor 3 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ins 6
		Ducts, metal allowed for fts., fastenings, hangers, etc., relief duct, 3 l.f. at furnace & includ- ing 3 - 12" dia. gravity vents for projection booth		2420	Steel 2420
		Registers & grilles	no. 30	460	Steel 460
		Ceiling diffusers	no. 11	44	Steel 44
		Firing Equipment			
	E	+15° oil burner 6 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	E	+15° oil burner 9 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	G	0° oil burner 8 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	G	0° oil burner 9 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 9 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 10 GPH	no. 1	300	CI 240 Stl 45 Cu 15
	I	+15° gas burner 896,000 Btu input	no. 1	331	CI 292 Stl 33 Cu 6
	I	+15° gas burner 1,344,000 Btu input	no. 1	488	CI 429 Stl 49 Cu 10
	L	0° gas burner 1,120,000 Btu input	no. 1	461	CI 397 Stl 46 Cu 8
	L	0° gas burner 1,344,000 Btu input	no. 1	488	CI 429 Stl 49 Cu 10
	M	-20° gas burner 1,344,000 Btu input	no. 1	488	CI 429 Stl 49 Cu 10
	M	-20° gas burner 1,344,000 Btu input	no. 1	488	CI 429 Stl 49 Cu 10
	EGH	Oil lines 2" & 3/4" dia.	lf. 90	180	Steel 180
	EGH	Oil fittings & valves		51	CI 39 Copper 12
	EGH	Reinforcement for 4000 gal. oil tank		60	Steel 60
560		Control Equipment			
		Relays	no. 2	14	Steel 12 Copper 2
		Damper motors	no. 6	48	Steel 42 Copper 6
570		Thermostats	no. 8	24	Steel 22 Copper 2
		Breeching, flue conn. 22" dia.	lf. 44	700	Steel 700
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE		- Constant		5260	Steel 5260
ELECTRICAL		- Constant		1257.8	Steel 837 Copper 420.8
PLUMBING		- Constant		526	Steel 526
		Variant U		140	Steel 140
HEATING		- Constant		2420	Steel 2420
		Variant EGH		240	Steel 240

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
360		Straps, misc.		32.5	Steel 32.5
370		Solder		5	Solder 5
380		Fixtures	no. 161	64.2	Steel 47.8 Copper 16.4
400		PLUMBING			
420		Fixtures - non-metallic			
		8 W.C., 2 Ur., 8 Lavs. & 1 S.S.	no. 19		
		Trim for above fixtures	no. 19	186	CI 154 Stl 19 Br 9 Cu 4
430		CI pipe & fittings size 4"	lf. 40		
		size 3"	lf. 60		
		size 2"	lf. 115		
		Subtotal pipe & fittings	lf. 215	1470	CI 1470
		Galv. steel pipe size 1-1/2"	lf. 65	223	Steel 174 CI 40 Zn 9
		(If lead is used for roughing			
		make-up of waste pipe, the total			
		of 223 lbs. will change to.		258	CI 54 Stl 83 Zn 5 Lead 116)
		Calking and flashing lead		300	Lead 300
		Misc. hangers, etc.		85	CI 10 Steel 75
440		Galv. water pipe & fittings			
		Pipe size 1-1/2"	lf. 10		
		Pipe size 1-1/4"	lf. 25		
		Pipe size 1"	lf. 5		
		Subtotal pipe & fittings	lf. 40	100	Stl 77 CI 18 Zn 5
		Pipe size 3/4"	lf. 190		
		Pipe size 1/2"	lf. 120		
		Pipe size 3/8"	lf. 75		
		Subtotal pipe & fittings	lf. 385	355	Stl 275 CI 65 Zn 15
		Misc. hangers, etc.		35	CI 10 Steel 25
		Valves and cocks	no. 2	9	Brass 9
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas			
		storage type, 65 gallon self			
		contained tank	no. 1	116	CI 25 Stl 472 Br 5 Zn 14
	EGH	50 GPH/100 deg. rise auto. oil			
		storage type with 35 gallon			
		self contained tank	no. 1	540	CI 200 Stl 328 Cu 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140 Zinc 14
	ACD	Blue pipe, 24 gage	sf. 10	10	Steel 10
	EGH	(Flue pipe, 24 gage			
	ILM		sf. 8	8	Steel 8
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1 Brass 0.5
	ACD	Auto. damper regulator	no. 1	11	CI 7 Stl 3 Brass 1
480		Black gas pipe & fittings			
		Pipe size 2"	lf. 25		
		Pipe size 1"	lf. 25		
		Subtotal pipe & fittings	lf. 50	175	Steel 140 CI 35
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 4	17	Brass 17
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	+15° coal 590,000 Btu	no. 1	5100	CI 4600 Steel 500
	A	+15° coal 820,000 Btu	no. 1	7730	CI 7080 Steel 650
	C	0° coal 750,000 Btu	no. 1	5900	CI 5340 Steel 560

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Morale Activities (1500)
Heating System: Forced warm air
Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf.1617	236.2	Steel 212.8 Zinc 23.4
260		Sheet metal, flashing, chimneys only (If lead flashing is used, the total of 15 lbs. will change to.)		15 80	Steel 14.2 Zinc 0.8 Lead 80)
280		Glazing points		8.1	Zinc 8.1
290		Builders Hardware			
		Doors - outside	no. 21		
		Doors - inside	no. 45		
		Windows	no. 187		
		Exit bolts	no. 28		
		Fire door	no. 4		
		Door closers	no. 30		
		Folding doors, track, etc.	no. 16		
		Proj. room ports, shutter & track	no. 6		
		Misc. (cab. & locker hardware)	no. 12		
		Total builders hardware		1614	Steel 1534 Brass 80
		Rough Hardware *			
		Nails, screws, etc.			
		Plain		5820	Steel 5820
		Galvanized		398	Steel 378 Zinc 20
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 400A-4P-3B & SN	no. 1	115.2	Steel 102 Copper 13.2
		Panelboards:			
		30A - 1P Circuits	no. 6	13.5	Steel 12 Copper 1.5
		30A - 1P "	no. 21	54	Steel 48 Copper 6
		30A - 1P "	no. 4	9	Steel 8 Copper 1
		30A - 1P "	no. 2	10.2	Steel 9.2 Copper 1
		30A - 3P "	no. 2	10.2	Steel 9.2 Copper 1
		60A - 3P "	no. 1	9.6	Steel 8.6 Copper 1
		100A - 3P "	no. 2	44	Steel 37.4 Copper 6.6
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f.5060	65.1	Copper 65.1
		#12 wire	1f.2290	45.5	Copper 45.5
		# 8 wire	1f. 240	12	Copper 12
		# 4 wire	1f. 240	30.2	Copper 30.2
		# 0 wire	1f. 500	160	Copper 160
		#250MCM wire	1f. 140	108	Copper 108
		Rigid conduit, 1/2"	1f. 980	837	Steel 837
340		Outlet boxes - non-metallic	no. 174		
		Outlet boxes - metallic	no. 65	65	Steel 65
350		Switches	no. 42	8.3	Steel 4.4 Copper 3.9
		Receptacles	no. 41	8.1	Steel 4.3 Copper 3.8

Crit. List. No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550		Control Equipment			
		Relays	no. 2	14	Steel 12, Cu 2
		Damper motors	no. 6	48	Steel 42, Cu 6
		Thermostats	no. 8	24	Steel 22, Cu 2
570		Breeching-flue conn-22" dia.	lf. 44	700	Steel 700
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE:		Constant		6000	Steel 6000
ELECTRICAL:		Constant		1305.3	Steel 837, Copper 468.3
PLUMBING:		Constant		552	Steel 552
		Variant U		140	Steel 140
HEATING:		Constant		2875	Steel 2875
		Variant EGH		240	Steel 240

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
480	(Cont.)				
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves & cocks	no. 4	17	Brass 17
500		HEATING			
530		Heaters - Warm Air Furnac s			
	A	+15° coal 590,000 Btu	no. 1	5100	CI 4600 steel 500
	A	+15° coal 902,000 Btu	no. 1	9400	CI 8600 steel 800
	C	0° coal 750,000 Btu	no. 1	5900	CI 5340 steel 560
	C	0° coal 950,000 Btu	no. 1	9400	CI 8600 steel 800
	D	-20° coal 830,000 Btu	no. 1	7730	CI 7080 steel 650
	D	-20° coal 1,020,000 Btu	no. 1	9400	CI 8600 Steel 800
	EI	+15° oil or gas 590,000 Btu	no. 1	4875	CI 4375 steel 500
	EI	+15° oil or gas 902,000 Btu	no. 1	9020	CI 8220 steel 800
	GL	0° oil or gas 750,000 Btu	no. 1	5625	CI 5065 steel 560
	GL	0° oil or gas 950,000 Btu	no. 1	9020	CI 8220 steel 800
	HM	-20° oil or gas 830,000 Btu	no. 1	7410	CI 6760 steel 650
	HM	-20° oil or gas 1,020,000 Btu	no. 1	9020	CI 8220 steel 800
		Blowers 10,500 CFM	no. 1	640	CI 40 steel 600
		Blowers 10,000 CFM	no. 1	640	CI 40 steel 600
		Motor 3 HP with controls	no. 1	125	CI 47 stl 47 cu 25 ins 6
		Motor 5 HP with controls	no. 1	150	CI 56 Stl 56 CU 30 Ins 8
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., relief duct, 3 l.f. at furnace & including 3-12" dia. gravity vents for projection booth		2875	Steel 2875
		Registers and grilles	no. 36	550	Steel 550
		Ceiling diffusers	no. 12	48	Steel 48
550		Firing Equipment			
	E	+15° oil burner 6 GPH	no. 1	250	CI 200 steel 38 cu 12
	E	+15° oil burner 9 GPH	no. 1	250	CI 200 steel 38 cu 12
	G	0° oil burner 8 GPH	no. 1	250	CI 200 steel 38 cu 12
	G	0° oil burner 10 GPH	no. 1	300	CI 240 steel 45 cu 15
	H	-20° oil burner 9 GPH	no. 1	250	CI 200 steel 38 cu 12
	H	-20° oil burner 11 GPH	no. 1	300	CI 240 steel 45 cu 15
	I	+15° gas burner 896,000 Btu input	no. 1	331	CI 292 steel 33 cu 6
	I	+15° gas burner 1,568,000 Btu input	no. 1	595	CI 524 steel 60 cu 11
	L	0° gas burner 1,120,000 Btu input	no. 1	451	CI 347 steel 45 cu 8
	L	0° gas burner 1,568,000 Btu input	no. 1	595	CI 524 steel 60 cu 11
	M	-20° gas burner 1,344,000 Btu input	no. 1	488	CI 429 steel 46 cu 8
	M	-20° gas burner 1,568,000 Btu input	no. 1	595	CI 524 steel 60 cu 11
	EGH	Oil lines 2" and 3/4"	lf. 90	180	Steel 180
	EGH	Oil fittings & valves 2" & 3/4"		51	CI 39 cu 12
	EGH	Reinforcement for 4000 gallon oil tank		60	Steel 60

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Morale Activities (650)
Heating System: Forced Warm Air
Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No1	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect Screen	sf 1120	146	Steel 131.0, zinc 15.0
260		Sheet metal, flashings chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to)		64	Lead 64)
280		Glazing points		4	Zinc 4
290		Builders Hardware			
		Doors - inside	no. 27		
		Doors - outside	no. 17		
		Windows	no. 74		
		Exit bolts	no. 22		
		Fire door	no. 1		
		Door closers	no. 25		
		Total builders' hardware		750	Steel 713, brass 37
		Rough hardware *			
		Nails, screws, etc.			
		Plain		3000	Steel 3000
		Galvanized		290	Steel 275, zinc 15
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN	no. 1	22	Steel 18.7, copper 3.3
		Panelboards:			
		30A - 1P Circuits	no. 12	27	Steel 24, copper 3
		30A - 1P "	no. 4	9	Steel 8, copper 1
		30A - 2P "	no. 4	20.8	Steel 18.8, copper 2
		60A - 2P "	no. 2	18.4	Steel 17.4, copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf 3900	50	Copper 50
		#12 wire	lf. 800	16	Copper 16
		# 8 wire	lf. 180	9	Copper 9
		# 6 wire	lf. 300	24	Copper 24
		# 1 wire	lf. 100	25.4	Copper 25.4
340		Outlet boxes (nonmetallic)	no. 130		
350		Switches	no. 22	4.4	Steel 2.2, copper 2.2
		Receptacles	no. 18	3.6	Steel 1.8, copper 1.8
360		Straps, misc.		11	Steel 11
370		Solder		2.8	
380		Fixtures	no. 90	36	Steel 27, copper 9
400		PLUMBING			
420		Fixtures - nonmetallic-			
		7 W.C., 7 Lavs., 2 Ur., & 1 S.S.	no. 17		
		Trim for above fixtures	no. 17	158	CI 130 Stl 18 Br 7 Ru 3

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings size 4" size 3" size 2" Subtotal pipe & fittings Galv. steel pipe size 1-1/2"	lf. 35 lf. 55 lf. 115 lf. 205 lf. 45	1415 170	CI 1415 Steel 138, CI 25 zinc 7
		(If lead is used for roughing make-up of waste pipe, the total of 170 lbs. will change to)		.201	CI 35, Steel 82, zinc 4 lead 80)
440		Galv. water pipe & fittings Pipe size 1-1/2" Pipe size 1-1/4" Pipe size 1" Subtotal pipe & fittings Galv. water pipe & fittings pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 10 lf. 25 lf. 5 lf. 40 lf. 190 lf. 120 lf. 65 lf. 375 35 no. 2	100 350 35 9	Steel 77, CI 18 zinc 5 Steel 271, CI 64 zinc 15 CI 10, steel 25 Brass 9
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 65 gallon, self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI 200 Stl 328 Cu 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 10	10	Steel 10
	EGH	(			
	ILM	(Flue pipe, 24 ga.	sf. 8	8	Steel 8
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1, brass 0.5
	ACD	Auto damper regulator	no. 1	11	CI 7, steel 3, brass 1
480	U	Black gas pipe & fittings Pipe size 2" Pipe size 1" Subtotal pipe & fittings	lf. 25 lf. 25 lf. 50	165	Steel 132, CI 33
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 4	17	Brass 17
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	+15° coal 230,000 Btu	no. 1	1852	CI 1750, steel 102
	A	+15° coal 420,000 Btu	no. 1	2443	CI 2300, steel 143
	C	0° coal 300,000 Btu	no. 1	1852	CI 1750, steel 102
	C	0° coal 550,000 Btu	no. 1	4225	CI 3825, steel 400
	D	-20° coal 360,000 Btu	no. 1	2443	CI 2300, steel 143
	D	-20° coal 600,000 Btu	no. 1	5100	CI 4600, steel 500

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	EI	+15° oil & gas 230,000 Btu	no. 1	1752	CI 1650, steel 102
	EI	+15° oil & gas 420,000 Btu	no. 1	2313	CI 2170, steel 143
	GL	0° oil & gas 300,000 Btu	no. 1	1752	CI 1650, steel 102
	GE	0° oil & gas 550,000 Btu	no. 1	4025	CI 3625, steel 400
	HM	-20° oil & gas 360,000 Btu	no. 1	2313	CI 2170, steel 143
	HM	-20° oil & gas 600,000 Btu	no. 1	4875	CI 4375, steel 500
		Blower CFM 3700	no. 1	263	CI 25, steel 238
		Blower CFM 6100	no. 1	372	CI 30, steel 342
		Motor 2 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ru 6
		Motor 1-1/2 HP with controls	no. 1	110	CI 41 Stl 41 Cu 22 Ru 6
		Duct, metal allowed for fittings, fastenings, hangers, etc., 3 l.f. at furnace & relief duct		1350	<u>Steel 1350</u>
		Registers & grilles	no. 15	200	Steel 200
		Ceiling diffusers	no. 5	20	Steel 20
		Firing Equipment - Furnaces			
	E	+15° oil burner GPH 3	no. 1	155	CI 124, stl 23, cu 8
	E	+15° oil burner GPH 5	no. 1	250	CI 200, Stl 38, Cu 12
	G	0° oil burner GPH 3	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GPH 6	no. 1	250	CI 200, Stl 38, Cu 12
	H	-20° oil burner GPH 4	no. 1	155	CI 124, Stl 23, Cu 8
	H	-20° oil burner GPH 6	no. 1	250	CI 200, Stl 38, Cu 12
	I	+15° gas burner 430,000 Btu input	no. 1	279	CI 245, Stl 28, Cu 6
	I	+15° gas burner 572,000 Btu input	no. 1	292	CI 257, Stl 29, Cu 6
	L	0° gas burner 430,000 Btu input	no. 1	279	CI 245, Stl 28, Cu 6
	L	0° gas burner 896,000 Btu input	no. 1	331	CI 291, Stl 33, Cu 7
	M	-20° gas burner 572,000 Btu input	no. 1	292	CI 257, Stl 29, Cu 6
	M	-20° gas burner 896,000 Btu input	no. 1	331	CI 291, Stl 33, Cu 7
	EGH	Oil lines 2" & 3/4"	lf. 90	180	<u>Steel 180</u>
	EGH	Oil fittings & valves 2" & 3/4"		51	CI 39, copper 12
	EGH	Reinforcement for 3000 gal. oil tank		45	<u>Steel 45</u>
		Control Equipment			
		Relays	no. 3	21	Steel 18, copper 3
		Damper motors	no. 5	40	Steel 35, copper 5
		Thermostats	no. 8	24	Steel 22, copper 2
		Breeching, flue conn. 18" dia.	lf. 40	500	Steel 500
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		2780	Steel 2780
		ELECTRICAL - Constant		124.4	Copper 124.4
		PLUMBING - Constant		486	Steel 486
		Var. U.		132	Steel 132
		HEATING - Constant		1350	Steel 1350
		Var. EGH		225	Steel 225

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Morale Activities (400)
Heating System: Forced Warm Air
Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit, List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products.			
200		STRUCTURE			
240		Insect screen	sf. 780	101	Steel 91.0, zinc 10
260		Sheet metal, flashings chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to		64	Lead 64)
280		Glazing points		3.1	Zinc 3.1
290		Builders Hardware			
		Doors - inside	no. 21		
		Doors - outside	no. 12		
		Windows	no. 62		
		Exit bolts	no. 17		
		Fire door	no. 1		
		Door closers	no. 21		
		Total builders hardware		600	Steel 570, brass 30
		Rough hardware*			
		Nails, screws, etc.			
		Plain		2019	Steel 2019
		Galvanized		200	Steel 190, zinc 10
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 100A-3P-2B- & SN	no. 1	22	Steel 18.7, copper 3.3
		Panelboards:			
		30A - 1P Circuits	no. 12	27	Steel 24, copper 3
		30A - 2P "	no. 6	31.2	Steel 28.2, copper 3
		60A - 2P "	no. 1	9.7	Steel 8.7, copper 1
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f 2600	33.4	Copper 33.4
		#12 wire	1f. 700	14	Copper 14
		# 8 wire	1f. 240	12	Copper 12
		# 1 wire	1f. 100	25.4	Copper 25.4
340		Outlet boxes (nonmetallic)	no. 91		
350		Switches	no. 15	3	Steel 1.5, copper 1.5
		Receptacles	no. 14	2.8	Steel 1.4, copper 1.4
360		Straps, misc.		7.7	Steel 7.7
370		Solder		2	
380		Fixtures	no. 62	24.8	Steel 18.6, copper 6.2
400		PLUMBING			
420		Fixtures - nonmetallic - 6 W.C.			
		5 lavs. 2 ur. & 1 S.S.	no. 14		
		Trim for above fixtures	no. 14	144	CI 120 Stl 15 Br 6 Ru 3

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings size 4" size 3" size 2" Subtotal pipe & fittings Galv. steel pipe size 1-1/2" Subtotal steel pipe	lf. 35 lf. 50 lf. 115 lf. 200 lf. 45 lf. 45	1390 154	CI 1390 <u>Steel 128</u> , CI 20 zinc 6
		(If lead is used for roughing make-up of waste pipe, the total of 154 lbs. will change to Calking & flashing lead Misc. hangers, etc.		.183 250 75	CI 29, stl 76 zinc 4 Lead 250 <u>lead 74</u> CI 10, steel 65
440		Galv. water pipe & fittings Pipe size 1-1/2" Pipe size 1-1/4" Pipe size 1" Subtotal pipe & fittings Galv. water pipe & fittings Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks Water Heaters	lf. 10 lf. 25 lf. 5 lf. 40 lf. 190 lf. 120 lf. 60 lf. 370 . no. 2	85 330 25 9	<u>Steel 66</u> , CI 15 zinc 4 Steel 255, CI 60 zinc 15 CI 10, Steel 15 Brass 9
450	ACD ILM • EGH ACD ACD EGH ILM	35 GPH/100 deg. rise coal htr. 20 GPH/100 deg. rise auto. gas storage type, 65 gallon, self contained tank 50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank 66 gallon storage tank Flue pipe, 24 ga. ((Flue pipe, 24 ga.	no. 1 no. 1 no. 1 no. 1 no. 1 sf. 10 sf. 8	145 516 540 154 10 8	CI 145 CI 25 Stl 472 Br 5 Zn 14 CI 200, Stl 328 Cu 8 Zn 4 Steel 140, zinc 14 Steel 10 Steel 8
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer	no. 1 no. 1 no. 1	1 1 1.5	Brass 1 Brass 1 CI 1, brass 0.5
480	ACD U U	Auto. damper regulator Black gas pipe & fittings pipe size 2" Pipe size 1" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	no. 1 lf. 25 lf. 25 lf. 50 . no. 4	11 165 10 17	CI 7, steel 3, brass 1 <u>Steel 132</u> , CI 33 Steel 10 Brass 17
500 530		HEATING Heaters - Warm Air Furnaces			
	A	+15° coal 140,000 Btu	no. 1	1447	CI 1350, steel 97
	A	+15° coal 330,000 Btu	no. 1	2443	CI 2300, steel 143
	C	0° coal 188,000 Btu	no. 1	1447	CI 1350, steel 97
	C	0° coal 440,000 Btu	no. 1	2957	CI 2800, steel 157
	D	-20° coal 223,000 Btu	no. 1	1852	CI 1750, steel 102
	D	-20° coal 500,000 Btu	no. 1	2957	CI 2800, steel 157

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	EI	+15° oil & gas 140,000 Btu	no. 1	1367	CI 1270, steel 97
	EI	+15° oil & gas 330,000 Btu	no. 1	2313	CI 2170, steel 143
	GL	0° oil & gas 188,000 Btu	no. 1	1367	CI 1270, steel 97
	GL	0° oil & gas 440,000 Btu	no. 1	2807	CI 2650, steel 157
	HM	-20° oil & gas 223,000 Btu	no. 1	1752	CI 1650, steel 102
	HM	-20° oil & gas 500,000 Btu	no. 1	2807	CI 2650, steel 157
		Blower CFM 2000	no. 1	190	CI 15, steel 175
		Blower CFM 4900	no. 1	372	CI 25, steel 347
		Motor 1/2 HP with controls	no. 1	50	CI 19 stl 19 Cu 10 Ru 2
		Motor 1-1/2 HP with controls	no. 1	110	CI 41 Stl 41 Cu 22 Ru 6
		Ducts, metal allowed for fittings, fastenings, hangers, etc.			
		3 l.f. at furnace & relief duct		950	Steel 950
		Registers & grilles	no. 12	120	Steel 120
		Ceiling diffusers	no. 5	20	Steel 20
		Firing Equipment - Furnaces			
	E	+15° oil burner GPH 2	no. 1	155	CI 124, Stl 23, Cu 8
	E	+15° oil burner GPH 4	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GPH 2	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GPH 5	no. 1	250	CI 200, Stl 38, Cu 12
	H	-20° oil burner GPH 3	no. 1	155	CI 124, Stl 23, Cu 8
	H	-20° oil burner GPH 5	no. 1	250	CI 200, Stl 38, Cu 12
	I	+15° gas burner 286,000 Btu input	no. 1	256	CI 225, Stl 26, Cu 5
	I	+15° gas burner 572,000 Btu input	no. 1	292	CI 257, Stl 29, Cu 6
	L	0° gas burner 286,000 Btu input	no. 1	256	CI 225, Stl 26, Cu 5
	L	0° gas burner 720,000 Btu input	no. 1	311	CI 274, Stl 31, Cu 6
	M	-20° gas burner 430,000 Btu input	no. 1	279	CI 245, Stl 28, Cu 6
	M	-20° gas burner 720,000 Btu input	no. 1	311	CI 274, Stl 31, Cu 6
	EGH	Oil lines 2" & 3/4"	lf. 90	180	Steel 180
	EGH	Oil fitting & valves 2" & 3/4"		51	CI 39, copper 12
560	EGH	Reinforcement for 2000 gal. oil tank		30	Steel 30
		Control Equipment			
		Relays	no. 2	14	Steel 12, copper 2
		Damper motors	no. 4	32	Steel 28, copper 4
570		Thermostats	no. 8	24	Steel 22, copper 2
		Breeching, flue conn. 15" dia.	lf. 30	350	Steel 350
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE - Constant				1880	Steel 1880
ELECTRICAL- Constant				84.8	Copper 84.8
PLUMBING - Constant				449	Steel 449
Var. U.				132	Steel 132
HEATING - Constant				950	Steel 950
Var. EGH				210	Steel 210

CRITICAL MATERIAL LIST

FOR

FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities

Building: Morale Activities (250)

Heating System: Forced Warm Air

Type Construction: Masonry and frame - concrete floor on earth

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products.			
200		STRUCTURE	sf. 630	82	Steel 74.0, zinc 8.0
240		Insect screen			
260		Sheet metal, flashings chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to)		64	Lead 64)
280		Glazing points		2.5	Zinc 2.5
290		Builders Hardware			
		Doors - inside	no. 19		
		Doors - outside	no. 9		
		Windows	no. 52		
		Exit bolts	no. 14		
		Fire door	no. 1		
		Door closers	no. 17		
		Total builders hardware		506	Steel 481, brass 25
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		1265	Steel 1265
		Galvanized		127	Steel 120.7, zinc 6.3
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 100A-3P-2B & SN	no. 1	22	Steel 18.7, copper 3.3
		Panelboards:			
		30A - 1P Circuits	no. 10	22.5	Steel 20, copper 2.5
		30A - 2P "	no. 6	31.2	Steel 28.2, copper 3
		60A - 2P "	no. 1	9.7	Steel 8.7, copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 2000	25.8	Copper 25.8
		#12 wire	lf. 400	8	Copper 8
		#8 wire	lf. 200	10	Copper 10
		#1 wire	lf. 100	25.4	Copper 25.4
340		Outlet boxes (nonmetallic)	no. 60		
350		Switches	no. 11	2.2	Steel 1.1, copper 1.1
		Receptacles	no. 9	1.8	Steel 0.9, copper 0.9
360		Straps, misc.		5	Steel 5
370		Solder		1.3	
380		Fixtures	no. 40	16	Steel 12, copper 4
400		PLUMBING			
420		Fixtures-nonmetallic-			
		4 w.c., 4 lavs, 1 u.r. & 1 s.s.	no. 10		
		Trim for above fixtures	no. 10	113	CI 95 Stl 11 Br 5 Rn 2
430		CI pipe & fittings size 4"	lf. 25		

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
440		CI pipe & fittings size 3"	lf. 40		
		size 2"	lf. 100		
		Subtotal pipe & fittings	lf. 165	1250	CI 1250
		Galv. steel pipe size 1-1/2"	lf. 40		
		Subtotal steel pipe	lf. 40	150	Steel 124, CI 20, zinc 6
		(If lead is used for roughing make-up of waste pipe, the total of 150 lbs. will change to		171	CI.26, steel 85, zinc 4 lead 56)
		Calking & flashing lead		230	Lead 230
		Misc. hangers, etc.		60	CI 5, steel 55
		Galv. water pipe & fittings			
		Pipe size 1-1/4"	lf. 25		
		Pipe size 1"	lf. 5		
		Subtotal pipe & fittings	lf. 30	64	Steel 50, CI.11, zinc 3
		Galv. water pipe & fittings			
		Pipe size 3/4"	lf. 150		
		Pipe size 1/2"	lf. 100		
450		Pipe size 3/8"	lf. 50		
		Subtotal pipe & fittings	lf. 300	300	Steel 231, CI. 54, zinc 5
		Misc. hangers, etc.		20	CI. 5, steel 15
		Valves and cocks	no. 2	7	Brass 7
		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI.145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 45 gallon, self contained tank	no. 1	390	CI.25, Stl 353, Br 4 Zn 8
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI.200 Stl 328, Cu 8, Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 10	10	Steel 10
	EGH)				
	ILM)	Flue pipe, 24 ga.	sf. 8	8	Steel 8
		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
460		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI.1, brass 0.5
	ACD	Auto, damper regulator	no. 1	11	CI.7, Steel 3, brass 1
	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 25		
		Pipe size 3/4"	lf. 25		
		Subtotal pipe & fittings	lf. 50	155	Steel 124, CI.31
	U	Misc. hangers, etc.		8	Steel 8
	U	Valves and cocks	no. 4	15	Brass 15
500		HEATING			
		Heaters - Warm Air Furnaces			
	A	+15° coal 140,000 Btu	no. 1	1447	CI. 1350, steel 97
	A	+15° coal 250,000 Btu	no. 1	1852	CI. 1750, steel 102
	C	0° coal 188,000 Btu	no. 1	1447	CI.1350, steel 97
	C	0° coal 330,000 Btu	no. 1	2443	CI. 2300, steel 143
	D	-20° coal 223,000 Btu	no. 1	1852	CI. 1750, steel 102
	D	-20° coal 370,000 Btu	no. 1	2443	CI. 2300, steel 143
	HI	+15° oil & gas 140,000 Btu	no. 1	1367	CI. 1270, steel 97
	HI	+15° oil & gas 250,000 Btu	no. 1	1752	CI. 1650, steel 102
	GL	0° oil & gas 188,000 Btu	no. 1	1367	CI. 1270, steel 97
	GL	0° oil & gas 330,000 Btu	no. 1	2313	CI. 2170, steel 143
	ME	-20° oil & gas 223,000 Btu	no. 1	1752	CI.1650, steel 102
	ME	-20° oil & gas 370,000 Btu	no. 1	2313	CI.2170, steel 143
		Blower CFM 2000	no. 1	190	CI.15, steel 175

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or Lbs.	Total Wts. Lbs.	Composition of Weights Lbs.
550		Blower CFM 3700	no. 1	263	CI.25, steel 238
		Motor 1/2 HP with controls	no. 1	50	CI.19, stl 19 Cu 10 Ru 2
		Motor 1-1/2 HP with controls	no. 1	110	CI.41 stl 41 Cu 22 Ru 6
		Ducts, metal allowed for fittings, fastenings, hangers, etc., 3 l.f. at furnace & relief duct		800	Steel 800
		Registers & grilles	no. 10	100	Steel 100
		Ceiling diffusers	no. 5	20	Steel 20
		Firing Equipment - Furnaces			
	E	+15° oil burner GPH 2	no. 1	155	CI.124, Stl 23, Cu 3
	E	+15° oil burner GPH 3	no. 1	155	CI.124, Stl 23, Cu 3
	G	0° oil burner GPH 2	no. 1	155	CI.123, Stl 23, Cu 3
	G	0° oil burner GPH 4	no. 1	155	CI.124, Stl 23, Cu 3
	H	-20° oil burner GPH 3	no. 1	155	CI.124, Stl 23, Cu 3
	H	-20° oil burner GPH 4	no. 1	155	CI.124, Stl 23, Cu 3
	I	+15° gas burner 286,000 Btu Input	no. 1	256	CI.225, Stl 26, Cu 3
	I	+15° gas burner 430,000 Btu Input	no. 1	279	CI.245, Stl 28, Cu 3
	L	0° gas burner 286,000 Btu Input	no. 1	256	CI.225, Stl 26, Cu 3
	L	0° gas burner 572,000 Btu Input	no. 1	292	CI.257, Stl 29, Cu 3
	M	-20° gas burner 430,000 Btu Input	no. 1	279	CI.245, Stl 28, Cu 3
	M	-20° gas burner 572,000 Btu Input	no. 1	292	CI.257, Stl 29, Cu 3
	EGH	Oil lines 2" & 3/4"	lf. 90	180	Steel 180
	EGH	Oil fitting & valves 2" & 3/4"		51	CI.39, copper 12
	EGH	Reinforcement for 2000 gal. oil tank		30	Steel 30
560		Control Equipment			
		Relays	no. 2	14	Steel 12, copper 2
		Damper motors	no. 4	32	Steel 28, copper 4
		Thermostats	no. 8	24	Steel 22, copper 2
570		Breeching, flue conn. 15" dia.	lf. 30	350	Steel 350
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
STRUCTURE - Constant				1180	Steel 1180
ELECTRICAL - Constant				69.2	Copper 69.2
PLUMBING - Constant				405	Steel 405
Var. U				124	Steel 124
HEATING - Constant				800	Steel 800
Var. EGH				210	Steel 210

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building Management & Maintenance (2100)
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - first floor concrete slab on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. lbs.	Composition of Weights lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
210		Reinf. rods, tie wire, access.		100	Steel 100
240		Insect screen	sf. 439	57.0	Steel 51.0, zinc 6.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 12.8 lbs.will change to		12.8	Steel 12.2, zinc 0.6
280		Glazing points		68	Lead 68)
290		Builders Hardware		5	Zinc 5
		Doors - outside	no. 5		
		Doors - inside	no. 28		
		Windows	no. 59		
		Misc. cabinets, wickets	no. 5		
		Fire exit bolts	no. 2		
		Vault doors	no. 1		
		Garage doors	no. 8		
		Coal doors	no. 1		
		Fire doors	no. 2		
		Door closers	no. 11		
		Total builders hardware		590	Steel 561, brass 29
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		2354	Steel 2354
		Galvanized		200	Steel 190, zinc 10
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 60A-4P-3B & SN	no. 1	13	Steel 11.6, copper 1.4
		Panelboards:			
		Circuits 30A - 1P	no. 12	27	Steel 24, copper 3
		" 30A - 3P	no. 2	10.4	Steel 9.4, copper 1
330		Conductors (equiv l.f. single wire)			
		#14 wire	lf. 3700	47.6	Copper 47.6
		#12 wire	lf. 280	5.6	Copper 5.6
		# 6 wire	lf. 140	11.2	Copper 11.2
340		Outlet boxes - nonmetallic	no. 97		
350		Switches	no. 26	5.2	Steel 2.6, copper 2.6
		Receptacles	no. 13	2.6	Steel 1.3, copper 1.3
360		Straps, misc.		8.1	Steel 8.1
370		Solder		2.1	
380		Fixtures	no. 58	23.2	Steel 17.4, copper 5.8
400		PLUMBING			
420		Fixture - nonmetallic			
		5 w.c., 4 lavs., 2 u.r.& 1 s. s.	no. 12		

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		Fixtures, nonmetallic showers	no. 2	48	Steel 48
		Trim, for above fixtures	no. 14	90	CI.73, Stl 8, Br 6.5 Ru 2.5
		CI pipe & fittings size 4"	lf. 20		
		size 3"	lf. 10		
		size 2"	lf. 35		
		Subtotal pipe and fittings	lf. 65	550	CI 550
		Galv. steel pipe size 2"	lf. 60		
		size 1-1/2"	lf. 15		
		Subtotal steel pipe	lf. 75	298	Steel 251, CI.34, zn 13
		(If lead is used for roughing make-up of waste pipe, the total of 298 lbs. will change to)		320	CI.41, steel 212, zn 11 Lead 56)
440		Calking and flashing lead		138	Lead 138
		Misc. hangers, etc.		25	CI 5, steel 20
		Galv. water pipe & fittings			
		Pipe size 1-1/4"	lf. 55		
		Pipe size 1"	lf. 110		
		Subtotal pipe & fittings	lf. 165	314	Steel 240, CI.58, zn 16
		Pipe size 3/4"	lf. 25		
		Pipe size 1/2"	lf. 125		
		Pipe size 3/8"	lf. 30		
		Subtotal pipe & fittings	lf. 160	170	Steel 130, CI.32, zn 8
450		Misc. hangers, etc.		25	CI. 3, steel 22
		Valves and cocks	no. 7	15	CI. 3, brass 12
		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI. 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 65 gallon self contained tank	no. 1	516	CI.25, Stl 472, Br 5, zinc 14
	HGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI.200 Stl 328 Cu 8 zinc 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 60		Steel 60
	HGH	(			
	ILM	(Flue pipe, 24 ga.	sf. 45	45	Steel 45
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI.1, brass 0.5
	ACD	Auto. damper regulator	no. 1	11	CI. 7, steel 3, brass 1
	U	Black gas pipe & fittings			
		Pipe size 2-1/2"	lf. 20		
		Pipe size 1"	lf. 10		
		Subtotal pipe & fittings	lf. 30	165	Steel 132, CI.33
	U	Misc. hangers, etc.		5	Steel 5
480	U	Valves and cocks	no. 2	9	Brass 9
500 530		HEATING			
		Heaters - Warm Air Furnaces			
	A	+15° coal 440,000 Btu	no. 1	2443	CI. 2300, steel 143
	C	0° coal 560,000 Btu	no. 1	4225	CI. 3825, steel 400
	D	-20° coal 627,000 Btu	no. 1	5100	CI. 4600, steel 500
	HI	+15° oil & gas 440,000 Btu	no. 1	2313	CI. 2170, steel 143
	GL	0° oil & gas 560,000 Btu	no. 1	4025	CI. 3625, steel 400

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	HM	-20° oil & gas 627,000 Btu	no. 1	4875	CI. 4375, steel 500
		Blowers 6100 CFM 1-1/4" SP	no. 1	372	CI. 30, steel 342
		Motor 2 HP with controls	no. 1	125	CI. 47, Stl 47 Cu 25 Ru 6
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace & relief duct		550	Steel 550
		Registers & grilles	no. 26	160	Steel 160
		Firing Equipment			
	E	+15° oil burner GPH 5	no. 1	250	CI.200,Stl 38,Cu 12
	G	0° oil burner GPH 6	no. 1	250	CI.200,Stl 38,Cu 12
	H	-20° oil burner GPH 7	no. 1	250	CI.200,Stl 38,Cu 12
	I	+ 15° gas burner Btu input 720,000	no. 1	311	CI.274,Stl 31,Cu 6
	L	0° gas burner Btu input 860,000	no. 1	558	CI.491,Stl 56,Cu 11
	M	-20° gas burner Btu input 860,000	no. 1	558	CI.491,Stl 56,Cu 11
	EGH	Oil piping 2" & 3/4"	lf. 90	178	Steel 178
	EGH	Oil fittings & valves 2" & 3/4"	no. 43	45	CI. 38, copper 7
	EGH	Reinforcement for 2000 gal. oil tank		30	Steel 30
560		Control Equipment			
		Motor relay	no. 1	7	Steel 6, copper 1
	ACD	Damper motor	no. 1	8	Steel 7, copper 1
570		Thermostats	no. 3	9	Steel 8, copper 1
		Breeching, flue conn. 15" dia.	lf. 16	175	Steel 175
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		2165	Steel 2165
		ELECTRICAL - Constant		64.4	Copper 64.4
		PLUMBING - Constant		621	Steel 621
		Var. U		132	Steel 132
		HEATING - Constant		550	Steel 550
		Var. EGH		208	Steel 208

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Management & Maintenance (1500)
Heating System: Forced warm air
Type Construction: Wood frame and part masonry - first floor concrete slab on ground

-WFB APPROVED LIST-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate material classed as "A" Products			
280		STRUCTURE			
280		Reinforcing rods, tie wire, accessories		100	<u>Steel 100</u>
280		Insect screen	sf. 439	57.0	Steel 51.0 Zinc 6.0
280		Sheet metal, flashings, raincoys only			Steel 11.4 Zinc 0.6
		If lead flashing is used, the total of 12 lbs. will change to		64	Lead (64)
280		Flashing points:		5	Zinc 5
280		Builders hardware			
		Doors - outside	no. 5		
		Doors - inside	no. 3		
		Windows	no. 59		
		Misc. cabinets, wickets	no. 5		
		Fire exit bolts	no. 2		
		Vault door	no. 1		
		Garage doors	no. 6		
		Coal doors	no. 1		
		Fire doors	no. 2		
		Door closers	no. 11		
		Total builders hardware		575	Steel 545 Brass 30
		Rough hardware*			
		Nails, screws, etc.			
		Plain		1804	<u>Steel 1804</u>
		Galvanized		180	<u>Steel 170.2 Zinc 9.5</u>
		*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 60A-4P-3B & SN	no. 1	13	Steel 11.6 Copper 1.4
		Panelboards: 30A - 1P Circuits	no. 12	27	Steel 24 Copper 3
		30A - 3P Circuits	no. 2	10.4	Steel 9.4 Copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 2750	35.4	<u>Copper 35.4</u>
		#12 wire	lf. 210	4.2	<u>Copper 4.2</u>
		# 8 wire	lf. 140	7	<u>Copper 7</u>
340		Outlet boxes - non-metallic	no. 74		
350		Switches	no. 20	4	Steel 2 Copper 2
		Receptacles	no. 10	2	Steel 1 Copper 1
360		Straps, misc.		7	Steel 7
370		Solder		1.5	
380		Fixtures	no. 44	17.6	Steel 13.2 Copper 4.4
400		PLUMBING			
420		Fixtures - non-metallic - 3 w.c. 4 lavs., 2 ur., & 1 s.s.	no. 10		
		Fixtures, non-metallic showers	no. 2	48	Steel 48
		Trim for above fixtures	no. 12	77	CI 63 Stl 6 Br 6 Ru 2

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fittings, size 4" size 3" Size 2" Subtotal pipe & fittings Galv. steel pipe, size 2" size 1-1/2" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 258 lbs. will change to. . . .	1f. 5 1f. 10 1f. 35 1f. 50 1f. 50 1f. 15 1f. 65	430 258	CI 430 <u>Steel 216</u> CI 31 Zinc 11
		Calking and flashing lead Misc. hangers, etc.		118 20	CI 38 Stl 177 Zinc 9 Lead 56) Lead 118 CI 5 Steel 15
440		Galv. water pipe & fittings Size 1-1/4" Size 1" Subtotal pipe & fittings Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	1f. 65 1f. 70 1f. 135 1f. 25 1f. 100 1f. 25 1f. 150	301 158 20 15	<u>Steel 230</u> CI 58 Zn 13 <u>Steel 120</u> CI 31 Zn 7 CI 3 Steel 17 Brass 15
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 65 gallon self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI 220 Stl 328 Cu 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140 Zinc 14
	ACD	Flue pipe, 24 gage	sf. 60	60	Steel 60
	EGH	(Flue pipe, 24 gage	sf. 45	45	Steel 45
	ILM				
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	Brass 0.5 CI 1
	ACD	Auto. damper regulator	no. 1	11	CI 7 Steel 3 Brass 1
480	U	Black gas pipe & fittings Size 2" Size 3/4" Subtotal pipe & fittings	1f. 20 1f. 10 1f. 30	105	<u>Steel 85</u> CI 20
	U	Misc. hangers, etc.		5	Steel 5
	U	Valves and cocks	no. 2	9	Brass 9
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	+15° coal 340,000 Btu	no. 1	2233	CI 2100 Steel 133
	C	0° coal 440,000 Btu	no. 1	2443	CI 2300 Steel 143
	D	-20° coal 465,000 Btu	no. 1	2957	CI 2800 Steel 157
	EI	+15° oil & gas 340,000 Btu	no. 1	2133	CI 2000 Steel 133
	GL	0° oil & gas 440,000 Btu	no. 1	2313	CI 2170 Steel 143
	HM	-20° oil & gas 465,000 Btu	no. 1	2827	CI 2670 Steel 157
		Blowers 5500 CFM 1" SP	no. 1	372	CI 30 Steel 342
		Motor 1-1/2 HP with controls	no. 1	125	CI 47 Stl 47 Cu 25 Ru 6.

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
530		Ducts, metal allowed for ftgs., fastenings, hangers, etc 3 l.f. at furnace & relief duct		444	Steel 444
550		Registers and Grilles	no. 23	138	Steel 138
		Firing Equipment			
	E	+15° oil burner 4 GPH	no. 1	15	CI 124 Steel 23 Cu 8
	G	0° oil burner 5 GPH	no. 1	250	CI 200 Steel 38 Cu 12
	H	-20° oil burner 5 GPH	no. 1	250	CI 200 Steel 38 Cu 12
	I	+15° gas burner Btu input 572,000	no. 1	292	CI 257 Steel 29 Cu 6
	L	0° gas burner Btu input 720,000	no. 1	311	CI 274 Steel 31 Cu 6
	M	-20° gas burner Btu input 720,000	no. 1	311	CI 274 Steel 31 Cu 6
	EGH	Oil burner piping 3/4" & 2"	lf. 90	178	Steel 178
	EGH	Oil burner fittings & valves	no. 43	45	CI 38 Copper 7
	EGH	Reinforcement for 1000 gallon oil tank		15	Steel 15
560		Control Equipment			
		Motor relay	no. 1	7	Steel 6 Copper 1
	ACD	Damper motor	no. 1	8	Steel 7 Copper 1
		Thermostats	no. 3	9	Steel 8 Copper 1
570		Breeching-flue conn. 12" dia.	lf. 16	125	Steel 125
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		1630	Steel 1630
		ELECTRICAL - Constant		46.6	Copper 46.6
		PLUMBING - Constant		566	Steel 566
		Variant U		85	Steel 85
		HEATING - Constant		444	Steel 444
		Variant EGH		193	Steel 193

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Management & Maintenance (1000)
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - first floor concrete slab on ground

-WFB Approved List-

Crit. List No.	Material	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
	Underlined weights indicate materials classed as "A" Products			
200	STRUCTURE			
210	Reinf. rods, tie wire, access.		100	Steel 100
220	Insect screen	sf. 434	56.0	Steel 50.0 Zinc 6.0
230	Sheet metal, flue metal, chimney only		12	Steel 11.6 Zinc 0.4
	(If lead flashing is used, the total of 12 lbs. will change to)		34	Lead 34
280	Glazing points		5	Steel 5
290	Builders Hardware			
	Doors - outside	no. 5		
	Doors - inside	no. 24		
	Windows	no. 50		
	Misc. cabinets, lockers	no. 5		
	Fire exit bolts	no. 2		
	Vault door	no. 1		
	Garage doors	no. 6		
	Coal door	no. 1		
	Fire doors	no. 2		
	Door closers	no. 1		
	Total builders hardware		575	Steel 545 Brass 30
	Rough Hardware*			
	Nails, screws, etc.			
	Plank		1697	Steel 1697
	Galvanized		170	Steel 161 Zinc 9
	*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300	ELECTRICAL			
320	Entrance 60A-4P-3B & SN	no. 1	13	Steel 11.6 Copper 1.4
	Panelboards: 30A - 1P Circuits	no. 12	27	Steel 24 Copper 3
	30A - 3P Circuits	no. 2	10.4	Steel 9.4 Copper 1
330	Conductors (equiv. 1.f. single wire)			
	#14 wire	1f. 2615	33.6	Copper 33.6
	#12 wire	1f. 210	4.2	Copper 4.2
	# 8 wire	1f. 140	7	Copper 7
340	Outlet boxes - non-metallic	no. 69		
350	Switches	no. 20	4	Steel 2 Copper 2
	Receptacles	no. 10	2	Steel 1 Copper 1
360	Straps, misc.		6	Steel 6
370	Solder		1.4	
380	Fixtures	no. 39	15.7	Steel 11.7 Copper 4
400	PLUMBING			
420	Fixtures - non-metallic- 3 w.c., 4 lavs., 2 ur. & 1 s.s.	no. 10		
	Fixtures, non-metallic showers	no. 2	48	Steel 48
	Trim for above fixtures	no. 12	77	CI 63 Stl 6 Br 6 Ru 2

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs
430		CI pipe & fittings, size 4" size 3" size 2" Subtotal pipe & fittings Galv. steel pipe, size 2" size 1-1/2" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 258 lbs. will change to.	lf. 5 lf. 10 lf. 35 lf. 50 lf. 50 lf. 15	430 258 280	CI 430 Steel 216 CI 31 Zinc 11 CI 38 Steel 177 Zinc 9 Lead 56)
440		Talking and flashing lead Misc. hangers, etc. Galv. water pipe & fittings Pipe size 1-1/4" Pipe size 1" Subtotal pipe & fittings Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks Water Heaters	 lf. 65 lf. 70 lf. 135 lf. 25 lf. 100 lf. 25 lf. 150 no. 7	 301 158 20 15	Lead 130 CI 5 Steel 15 Steel 230 CI 58 Zn 13 Steel 120 CI 31 Zn 7 CI 5 Steel 15 Brass 15
450	ACD ILM EGH ACD ACD EGH ILM	35 GPH/100 deg. rise coal htr. 20 GPH/100 deg. rise auto. gas storage type, 65 gallon self contained tank 50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank 66 gallon storage tank Flue pipe, 24 gage (Flue pipe, 24 gage (	no. 1 no. 1 no. 1 no. 1 sf. 60 sf. 45	1-5 516 5-0 154 60 45	CI 1045 CI 25 Stl 4 1/2 Br 5 Zn 14 CI 200 Stl 728 Cu 8 Zn 4 Steel 140 Zinc 14 Steel 60 Steel 45
460		Control Equipment Pressure relief valve Temperature relief valve Thermometer Auto. damper regulator	no. 1 no. 1 no. 1 no. 1	1 1 1.5 11	Brass 1 Brass 1 CI 1 Brass 0.5 CI 7 Stl 3 Brass 1
480	U U U	Black gas pipe & fittings Pipe size 2" Pipe size 3/4" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	lf. 20 lf. 10 lf. 30 no. 0	105 5 0	Steel 85 CI 20 Steel 5 Brass 9
500 530		HEATING Heaters - Warm Air Furnaces			
	A C D EI GL HM	415° coal 340,000 Btu 0° coal 440,000 Btu -20° coal 465,000 Btu 415° oil & gas 340,000 Btu 0° oil & gas 440,000 Btu -20° oil & gas 465,000 Btu Blowers 5500 CFM 1-SP Motor 1-1/2 HP with controls	no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1	2233 2443 2957 2133 2313 2827 372 125	CI 2100 Steel 133 CI 2300 Steel 143 CI 2800 Steel 157 CI 2000 Steel 133 CI 2170 Steel 143 CI 2670 Steel 157 CI 30 Steel 342 CI 47 Stl 47 Cu 25 Ru 6

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
530		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, and relief duct		444	Steel 444
		Registers & grilles	no. 23	138	Steel 138
550		Firing Equipment			
	E	+15° oil burner 4 GPH	no. 1	155	CI 124 Stl 23 Cu 8
	G	0° oil burner 5 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	H	-20° oil burner 5 GPH	no. 1	250	CI 200 Stl 38 Cu 12
	I	+15° gas burner Btu input 572,000	no. 1	292	CI 257 Stl 29 Cu 6
	L	0° gas burner Btu input 720,000	no. 1	311	CI 274 Stl 31 Cu 6
	M	-20° gas burner Btu input 720,000	no. 1	311	CI 274 Stl 31 Cu 6
	EGH	Oil burner piping 3/4" & 2"	lf. 90	178	Steel 178
	EGH	Oil burner fittings & valves	no. 43	45	CI 38 Copper 7
	EGH	Reinforcement for 1000 gal. oil tank		15	Steel 15
560		Control Equipment			
		Motor Relay	no. 1	7	Steel 6 Copper 1
	ACD	Damper motor	no. 1	8	Steel 7 Copper 1
		Thermostats	no. 3	9	Steel 8 Copper 1
570		Breeching - flue conn. 12" dia.	lf. 16	125	Steel 125
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		1580	Steel 1580
		ELECTRICAL - Constant		44.8	Copper 44.8
		PLUMBING - Constant		566	Steel 566
		Variant U		85	Steel 85
		HEATING - Constant		444	Steel 444
		Variant EGH		193	Steel 193

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building Management & Maintenance (650)
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - first floor concrete slab on ground

WPB Approved List

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials Classed as "A" Products			
200		STRUCTURE			
210		Reinf. steel, tie wire, access		100	Steel 100
240		Insect screen	sf. 364	47.0	Steel 42.0, zinc 5.0
260		Sheet metal, flashings chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to		64	Lead 64)
280		Glazing points		4	Zinc 4
290		Builders Hardware			
		Doors - outside	No. 5		
		Doors - inside	No. 23		
		Windows	No. 46		
		Misc. cabinets, wickets	No. 5		
		Fire exit bolts	No. 2		
		Vault doors	No. 1		
		Garage doors	No. 6		
		Coal doors	No. 1		
		Fire doors	No. 2		
		Door closers	No. 11		
		Total builders hardware		535	Steel 509, brass 26
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		1433	Steel 1433
		Galvanized		110	Steel 104, zinc 6
		*Under Rough Hardware, 85% of Steel is Classed as "A" Product			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	No. 1	9.7	Steel 8.7, copper 1
		Panelboards:			
		30A - 1P Circuits	No. 10	22.5	Steel 20, copper 2.5
		30A - 2P " "	No. 2	10.4	Steel 9.4, copper 1
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 2120	27.3	Copper 27.3
		#12 " "	1f. 160	3.2	Copper 3.2
		#6 wire	1f. 100	8	Copper 8
340		Outlet boxes (Nonmetallic)	no. 58		
350		Switches	no. 17	3.4	Steel 1.7, copper 1.7
		Receptacles	no. 9	1.8	Steel 0.9, copper 0.9
360		Straps, misc.		5	Steel 5
370		Solder		1.3	
380		Fixtures	no. 32	12.8	Steel 9.6, copper 3.2
400		PLUMBING			
420		Fixtures - nonmetallic			
		3 W.C., 3 Lavs. ls.s	no. 7		
420		Fixtures, nonmetallic showers	no. 2	48	Steel 48
		Trim for above fixtures	no. 9	68	CI 55 Stl 5 Br 6 Ru 2
430		CI pipe & fittings size 4"	1f. 10		
		size 3"	1f. 10		
		size 2"	1f. 35		
		Subtotal pipe & fittings 91	1f. 55	422	CI 422

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430	(Cont.)	Galv. steel pipe size 2" size 1½"	lf. 45 lf. 13		
		Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 230 lbs. will change to)	lf. 58	230	Steel 193, CI 27, zinc 10
		Calking & flashing lead		241	CI 30, Steel 178, zinc 9, Lead 24)
		Misc. hangers, etc.		118	Lead 118
440		Galv. water pipe & fittings		20	CI 5, Steel 15
		Pipe size 1½"	lf. 55		
		Pipe size 1"	lf. 110		
		Subtotal pipe & fittings	lf. 165	314	Steel 240, CI 58, zinc 16
		Pipe size ¾"	lf. 25		
		Pipe size ½"	lf. 95		
		Pipe size 3/8"	lf. 20	150	
		Subtotal pipe & fittings	lf. 140	150	Steel 118, CI 25, zinc 7
		Misc. hangers, etc.		20	CI 5, Steel 15
450		Valves and cocks	no. 8	15	Brass 15
		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 65 gallon, self contained tank	no. 1	516	CI 25 Stl 472 Br 5 Zn 14
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI 200 Stl 328 Cu 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 60	60	Steel 60
	EGH	(			
	ILM	(Flue pipe, 24 ga.	sf. 45	45	Steel 45
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1, brass 0.5
	ACD	Auto, damper regulator	no. 1	11	CI 7, steel 3, brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 15		
		Pipe size ¾"	lf. 10		
		Subtotal pipe & fittings	lf. 25	86	Steel 70, CI 16
	U	Misc. hangers, etc.		5	Steel 5
	U	Valves and cocks	no. 2	9	Brass 9
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	15° coal 270,000 Btu	no. 1	1852	CI 1750, steel 102
	C	0° coal 354,000 Btu	no. 1	2233	CI 2100, steel 133
	D	-20° coal 394,000 Btu	no. 1	2443	CI 2300, steel 143
	EI	15° oil & gas 270,000 Btu	no. 1	1752	CI 1650, steel 102
	GL	0° oil & gas 354,000 Btu	no. 1	2133	CI 2000, steel 133
	HM	-20° oil & gas 394,000 Btu	no. 1	2313	CI 2170, steel 143
		Blowers 4900 CFM 1" SP	no. 1	264	CI 25, steel 239
		Motor 1 1½ HP with controls	no. 1	110	CI 41 Stl 41 Cu 22 Ru 6
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, & relief duct		400	Steel 400
		Registers & grilles	no. 21	125	Steel 125
550		Firing Equipment - Furnaces			
	E	15° oil burner GPH 3	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GPH 4	no. 1	155	CI 124, Stl 23, Cu 8
	H	-20° oil burner GPH 4	no. 1	155	CI 124, Stl 23, Cu 8

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550 (Cont.)	I	15° gas burner 430,000 Btu Input	no. 1	279	CI 245, Stl 28, Cu 6
	L	0° gas burner 572,000 Btu Input	no. 1	292	CI 257, Stl 29, Cu 6
	M	-20° gas burner 572,000 Btu Input	no. 1	292	CI 257, Stl 29, Cu 6
	EGH	Oil pipe 2" & 3/4"	lf. 90	178	Steel 178
	EGH	Oil fittings & valves	no. 43	45	CI 38, copper 7
	EGH	Reinforcement for 1000 gal. oil tank		15	Steel 15
560		Control Equipment			
		Motor relay	no. 1	7	Steel 6, copper 1
	ACD	Damper motor	no. 1	8	Steel 7, copper 1
		Thermostats	no. 3	9	Steel 8, copper 1
570		Breeching, flue conn. 12" dia.	lf. 16	125	Steel 125
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - CONSTANT		1310	Steel 1310
		ELECTRICAL - CONSTANT		38.5	Copper 38.5
		PLUMBING - CONSTANT		551	Steel 551
		VAR. U		70	Steel 70
		HEATING - CONSTANT		400	Steel 400
		VAR. EGH		193	Steel 193

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1 Project Facilities

Building Management & Maintenance (400)

Heating System: Forced Warm Air

Type Construction: Wood frame and part masonry - first floor concrete slab on ground

WPB Approved List

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
Underlined Weights Indicate Materials Classed as "A" Products					
200		STRUCTURE			
210		Reinf. rods, tie wire, access.		100	Steel 100
240		Insect screen	sf. 353	46.0	Steel 41.0, zinc 5.0
260		Sheet metal, flashings, chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing issued, the total of 12 lbs. will change to)		64	Lead <u>64</u>
280		Glazing points		3.9	Zinc 3.9
290		Builders Hardware			
		Doors - outside	no. 5		
		Doors - inside	no. 22		
		Windows	no. 46		
		Misc. cabinets, wickets	no. 5		
		Fire exit bolts	no. 2		
		Vault doors	no. 1		
		Garage doors	no. 4		
		Coal doors	no. 1		
		Fire doors	no. 2		
		Door closers	no. 10		
		Total builders hardware		494	Steel 470, brass 24
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		1214	Steel 1214
		Galvanized		95	Steel <u>90</u> , zinc 5
*Under Rough Hardware, 85% of Steel is Classed as "A" Product					
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	no. 1	9.7	Steel 8.7, copper 1
		Panelboards:			
		30A - 1P Circuits	no. 8	18	Steel 16, copper 2
		30A - 2P "	no. 2	10.4	Steel 9.4, copper 1
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 1900	25	Copper <u>25</u>
		#12 wire	1f. 120	2.4	Copper <u>2.4</u>
		#6 wire	1f. 100	8	Copper <u>8</u>
340		Outlet boxes (nonmetallic)	no. 52		
350		Switches	no. 16	3.2	Steel 1.6, copper 1.6
		Receptacles	no. 8	1.6	Steel 0.8, copper 0.8
360		Straps, misc.		4.5	Steel 4.5
370		Solder		1.1	
380		Fixtures	no. 28	11.2	Steel 8.4, copper 2.8
400		PLUMBING			
420		Fixtures - nonmetallic 3W.C.; 2 Lavs. & 1 S.S.	no. 6		
420		Fixtures, nonmetallic showers	no. 1	24	Steel 24
		Trim for above fixtures	no. 7	52	CI 42 Stl 4 Br 4.5 Ru 1.5
430		CI pipe & fittings size 4"	1f. 10		
		size 3"	1f. 10		
		size 2"	1f. 30		
		Subtotal pipe & fittings	1f. 50	412	CI 412

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430 (Cont.)		Galv. steel pipe size 2" size 1 1/2"	lf. 35 lf. 13 lf. 48		
		Subtotal steel pipe		188	Steel 158, CI 22, zinc 8
		(If lead is used for roughing make-up of Waste Pipe, the total of 188 lbs. will change to		199	CI 25. Steel 143, zinc 7
		Calking & flashing lead		103	Lead 24)
				18	Lead 103
		Misc. hangers, etc.			CI 4, steel 14
440		Galv. water pipe & fittings			
		Pipe size 1-1/4"	lf. 40		
		Pipe size 1"	lf. 80		
		Subtotal pipe & fittings	lf. 120	218	Steel 167, CI 40, zinc 11
		Pipe size 3/4"	lf. 40		
		Pipe size 1/2"	lf. 70		
		Pipe size 3/8"	lf. 15	128	
		Subtotal pipe & fittings	lf. 125	128	Steel 106, CI 21, zinc 6
		Misc. hangers, etc.		15	CI 2, steel 13
		Valves and cocks	no. 7	13	Brass 13
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI 145
	ILM	20 GPH/100 deg. rise auto. gas storage type, 45 gallon, self contained tank	no. 1	390	CI 25 Stl 353 Br 4 Zn 8
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI 200 Stl 328 Cu 8 Zn 4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 60	60	Steel 60
	EGH	(			
	ILM	(Flue pipe, 24 ga.	sf. 45	45	Steel 45
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	1.5	CI 1, brass 0.5
	ACD	Auto, damper regulator	no. 1	11	CI 7, steel 3, brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 15		
		Pipe size 3/4"	lf. 10		
		Subtotal pipe & fittings	lf. 25	65	Steel 53, CI 12
	U	Misc. hangers, etc.		5	Steel 5
	U	Valves and cocks	no. 2	6	Brass 6
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	15° coal 203,000 Btu	no. 1	1447	CI 1350, steel 97
	C	0° coal 270,000 Btu	no. 1	1852	CI 1750, steel 102
	D	20° coal 300,000 Btu	no. 1	1852	CI 1750, steel 102
	EI	15° oil & gas 203,000 Btu	no. 1	1367	CI 1270, steel 97
	GL	0° oil & gas 270,000 Btu	no. 1	1752	CI 1650, steel 102
	HM	20° oil & gas 300,000 Btu	no. 1	1752	CI 1650, steel 102
		Blower 3700 CFM 1" SP	no. 1	490	CI 25, steel 465
		Motor 1-1/2 HP with Controls	no. 1	110	CI 41 Stl 41 Cu 22 Ru 6
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l. f. at furnace, & relief duct		310	Steel 310
		Registers & grilles	no. 17	100	Steel 100
550		Firing Equipment - Furnaces			
	E	15° oil burner GPH 2	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GPH 3	no. 1	155	CI 124, Stl 23, Cu 8
	H	20° oil burner GPH 3	no. 1	155	CI 124, Stl 23, Cu 8

Crit. List No.	Var.	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	(Cont.)			
	L 1/15° gas burner 430,000 Btu Input	no. 1	279	CI 245, Stl.28, Cu 6
	L 0° gas burner 572,000 Btu Input	no. 1	292	CI 257, Stl.29, Cu 6
	M 1/200° gas burner 572,000 Btu Input	no. 1	292	CI 257, Stl.29, Cu 6
	EGH Oil pipe 2" & 3/4"	lf. 90	178	<u>Steel 178</u>
	EGH Oil fittings & valves	no. 43	45	CI 38, copper 7
	EGH Reinforcement for 1000 gal. oil tank		15	<u>Steel 15</u>
560	Control Equipment			
	Motor relay	no. 1	7	Steel 6, copper 1
	ACD Damper motor	no. 1	8	Steel 7, copper 1
	Thermostats	no. 3	9	Steel 8, copper 1
570	Breeching, flue conn. 12" dia.	lf. 16	125	Steel 125
TOTAL WEIGHTS OF CONTROLLED MATERIALS "A" PRODUCTS				
	STRUCTURE-- CONSTANT		1110	Steel 1110
	ELECTRICAL- CONSTANT		35.4	Copper 35.4
	PLUMBING - CONSTANT		431	Steel 431
	VAR. U		53	Steel 53
	HEATING - CONSTANT		310	Steel 310
	VAR. EGH		193	Steel 193

CRITICAL MATERIAL LIST
For
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Management & Maintenance (250)
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - first floor concrete slab on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights indicate materials classed as "A" Products			
200		STRUCTURE			
210		Reinf. rods, tie wire, access.		100	Steel 100
240		Insect screen	sf. 321	42.0	Steel 38.0, zinc 4.0
260		Sheet metal, flashings, chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to)		64	Lead 64)
280		Glazing points		3.4	Zinc 3.4
290		Builders Hardware			
		Doors - outside	no. 5		
		Doors - inside	no. 21		
		Windows	no. 40		
		Misc. cabinets, wickets	no. 5		
		Fire exit bolts	no. 2		
		Vault doors	no. 1		
		Garage doors	no. 2		
		Coal doors	no. 1		
		Fire doors	no. 2		
		Door closers	no. 10		
		Total builders hardware		457	Steel 434, brass 23
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		979	Steel 979
		Galvanized		80	Steel 76, zinc 4
		*Under Rough Hardware, 85% of steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN Panelboards:	no. 1	9.7	Steel 8.7, copper 1
		30A - 1P Circuits	no. 6	13.5	Steel 12, copper 1.5
		30A - 2P Circuits	no. 2	10.4	Steel 9.4, copper 1
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf. 1500	19.4	Copper 19.4
		#12 wire	lf. 120	2.4	Copper 2.4
		# 8 wire	lf. 100	5	Copper 5
340		Outlet boxes (nonmetallic)	no. 46		
350		Switches	no. 15	3	Steel 1.5, copper 1.5
		Receptacles	no. 7	1.4	Steel 0.7, copper 0.7
360		Straps, misc.		4	Steel 4
370		Solder		1	
380		Fixtures	no. 24	9.6	Steel 7.2, copper 2.4
400		PLUMBING			
420		Fixtures - nonmetallic - 3 W.C., 2 lavs., & 1 s.s.	no. 6		
		Fixtures, nonmetallic showers	no. 1	24	Steel 24

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		Trim, for fixtures	no. 1	42	CI.35,Stl.1,Br.4.5, Ru. 1.5
		CI. pipe & fittings size 3"	lf. 20		
		size 2"	lf. 25		
		Subtotal pipe & fittings	lf. 45	284	CI. 284
		Galv. steel pipe size 2"	lf. 25		
		size 1-1/2"	lf. 10		
		Subtotal steel pipe	lf. 35	165	Steel 138,CI.20, zinc 7
		(If lead is used for roughing, make up of waste pipe, the total of 165 lbs. will change to)		197	CI.23, Stl.143, zn.7 lead 24)
		Calking & flashing lead		83	Lead 83
		Misc. hangers, etc.		15	CI. 15 steel 10
440		Galv. water pipe & ftgs.			
		Pipe size 1-1/4"	lf. 30		
		Pipe size 1"	lf. 60		
		Subtotal pipe & ftgs.	lf. 90	181	Stl. 140, CI.33, zn.8
		Pipe size 3/4"	lf. 50		
		Pipe size 1/2"	lf. 50		
		Pipe size 3/8"	lf. 10		
		Subtotal pipe & ftgs.	lf. 110	110	Stl. 34,CI.20, zn.6
		Misc. hangers, etc.		12	CI. 2, steel 10
		Valves & cocks	no. 7	11	Brass 11
450		Water Heaters			
	ACD	35 GPH/100 deg. rise coal htr.	no. 1	145	CI. 145
	ILM	20 GPH/100 deg. rise auto.gas storage type, 45 gallon,self contained tank	no. 1	390	CI.25,Stl.353,Br.4,zn.8
	EGH	50 GPH/100 deg. rise auto. oil storage type with 35 gallon self contained tank	no. 1	540	CI.200,Stl.328,Cu.8,zn.4
	ACD	66 gallon storage tank	no. 1	154	Steel 140, zinc 14
	ACD	Flue pipe, 24 ga.	sf. 60	60	Steel 60
	EGH	(			
	ILM	(Flue pipe, 24 ga.	sf. 45	45	Steel 45
		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
460		Temperature relief valve	no. 1		Brass 1
		Thermometer	no. 1	2	CI.1, brass 1
	ACD	Auto. damper regulator	no. 1	11	CI. 7, stl. 3, brass 1
	480	Black gas pipe & fittings			
		Pipe size 1-1/4"	lf. 15		
		Pipe size 3/4"	lf. 10		
		Subtotal pipe & fittings	lf. 25	55	Steel 45, CI.10
	U	Misc. hangers, etc.		5	Steel 5
	U	Valves and cocks	no. 2	5	Brass 5
500 530		HEATING			
		Heaters - Warm Air Furnaces			
	A	+15° coal 110,000 Btu	no. 1	1447	CI. 1350, steel 97
	C	0° coal 205,000 Btu	no. 1	1447	CI. 1350, steel 97
	D	-20° coal 225,000 Btu	no. 1	1852	CI. 1750, steel 102
	HI	+15° oil & gas 110,000 Btu	no. 1	1367	CI. 1270, steel 97
	GL	0° oil & gas 205,000 Btu	no. 1	1367	CI. 1270, steel 97
	HM	-20° oil & gas 225,000 Btu	no. 1	1752	CI. 1650, steel 102
		Blower 2000 CFM 5/8" SP	no. 1	190	CI. 15, steel 175
		Motor 1/2 HP with controls	no. 1	50	CI. 19,Stl.19,Cu.10,Ru.2

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. lbs.	Composition of Weights lbs.
550		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, & relief duct		230	Steel 230
		Registers & grilles	no. 14	85	Steel 85
		Firing Equipment - Furnaces			
	E	+15° oil burner GPH 2	no. 1	155	CI.124, Stl.23, Cu. 8
	G	0° oil burner GPH 2	no. 1	155	CI.124, Stl.23, Cu.8
	H	-20° oil burner GPH 3	no. 1	155	CI.124, Stl.23, Cu.8
	I	-15° gas burner 286,000 Btu Input	no. 1	256	CI.225, Stl.26, Cu.5
	L	0° gas burner 286,000 Btu Input	no. 1	256	CI.225, Stl.26, Cu.5
	M	-20° gas burner 430,000 Btu Input	no. 1	279	CI.245, Stl.28, Cu.6
	EGH	Oil pipe 2" & 3/4"	lf. 90	178	Steel 178
560	EGH	Oil fittings & valves 2" & 3/4"	no. 43	45	CI. 38, copper 7
	EGH	Reinforcement for 1000 gal. oil tank		15	Steel 15
		Control Equipment			
		Motor relay	no. 1	7	Steel 6, copper 1
	ACD	Damper motor	no. 1	8	Steel 7, copper 1
570		Thermostats	no. 3	9	Steel 8, copper 1
		Breeching, flue conn. 12" dia.	lf. 16	125	Steel 125
TOTAL WEIGHTS OF CONTROLLED MATERIALS "A" PRODUCTS					
		STRUCTURE - Constant		900	Steel 900
		ELECTRICAL - Constant		26.8	Copper 26.8
		PLUMBING - Constant		362	Steel 362
		Var. U		45	Steel 45
		HEATING - Constant		230	Steel 230
		Var. EGH		193	Steel 193

CRITICAL MATERIAL LIST
For
FPHA STANDARD BUILDINGS

Series: WD-1 - Project Facilities Building: Community Building (150) With Cafeteria
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - concrete first floor on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. lbs.	Composition of Weights lbs.
		Underlined weights indicate materials classed as "A" Products.			
200		STRUCTURE			
240		Insect Screen	sf. 540	70.2	Steel 63.2, zinc 7.0
260		Sheet metal, flashings, chimney only		24	Steel 22.8, zinc 1.2
		(If lead flashing is used, the total of 24 lbs. will change to)		128	Lead 128)
280		Flazing points		2.4	Zinc 2.4
290		Builders Hardware			
		Doors - outside	no. 8		
		Doors - inside	no. 20		
		Windows	no. 51		
		Misc. cabinets, wickets, etc.	no. 11		
		Fire exit bolts	no. 8		
		Vault door	no. 1		
		Door closers	no. 19		
		Folding doors, track	no. 8		
		Total builders hardware		552	Steel 524.8, brass 27.2
		Rough Hardware*			
		Nails, screws, etc.		1466	Steel 1466
		Plain		120	Steel 114, brass 6
		Galvanized			
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 200A-3P-2B & SN	no. 1	42	Steel 32, copper 10
		Panelboards:			
		100A - 2P circuits	no. 1	9.7	Steel 8.7, copper 1
		30A - 2P circuits	no. 8	41.6	Steel 37.6, copper 4
		30A - 1P circuits	no. 18	45	Steel 40, copper 5
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f. 4200	54	Copper 54
		#12 wire	1f. 420	4	Copper 4
		# 4 wire	1f. 230	29.2	Copper 29.2
		# 0 wire	1f. 100	32	Copper 32
330		Outlet boxes (nonmetallic)	no. 106		
250		Switches	no. 26	5.2	Steel 2.6, copper 2.6
		Receptacles	no. 23	4.6	Steel 2.3, copper 2.3
360		Straps, misc.		9	Steel 9
370		Solder		2.3	
380		Fixtures	no. 57	22.8	Steel 17.1, copper 5.7

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
400		PLUMBING			
420		Fixtures - nonmetallic 4 w.c., 4 lavs., & 2 s.s.	no. 10		
		Trim for above fixtures & 5 sinks	no. 15	195	CI.169,Stl.12 Br.12 Ru 2
430		CI pipe & fittings size 4"	lf. 20		
		size 3"	lf. 50		
		size 2"	lf. 230		
		Subtotal pipe & fittings	lf. 300	2200	CI.2200 (inc.screw ftgs.)
		Galv. steel pipe size 1-1/2"	lf. 133		
		size 1-1/4"	lf. 58		
		Subtotal steel pipe	lf. 191	625	Stl.495,CI.105,zn.25
		(If lead is used for roughing make up of waste pipe, the total of 625 lbs. will change to)		659	CI.116,Stl.423,zn.21, lead 99)
		Calcking and flashing lead		560	Lead 560
		Misc. hangers, etc.		57	CI. 6, steel 51
440		Galv. water pipe & fittings			
		Pipe size 2"	lf. 10		
		Pipe size 1-1/4"	lf. 165		
		Pipe size 1"	lf. 30		
		Subtotal pipe & fittings	lf. 205	547	Stl.420,CI.104,zn.23
		Pipe size 3/4"	lf. 65		
		Pipe size 1/2"	lf. 450		
		Pipe size 3/8"	lf. 35		
		Subtotal pipe & fittings	lf. 550	595	Stl.460,CI.111, zn.24
		Misc. hangers, etc.		70	CI. 15, steel 55
		Valves & cocks	no. 9	30	Brass 30
450		Water Heaters			
	ACD	150 GPH/100 deg. rise coal htr.	no. 1	825	CI. 825
	ILM	150 GPH/100 deg. rise auto. gas htr. inc. firing equipment	no. 1	973	CI. 950, Stl.15,Br 8
		200 gallon storage tank	no. 1	400	Steel 400
	VW	Booster heater (steam) with accessories	no. 1	100	CI.3,Stl.90,Br.2,zn.5
	U	Booster heater (gas) with accessories	no. 1	106	CI.9,Stl.90,Br.2,zn.5
		Flue pipe, 2-ga.		85	Steel 85
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	2	CI.1, brass 1
	ACD	Auto. damper regulator	no. 1	11	CI.7, Stl. 3, Br. 1
480	U	Black gas pipe & fittings			
		Pipe size 1-1/2"	lf. 15		
		Pipe size 2"	lf. 80		
		Pipe size 1-1/4"	lf. 20		
		Pipe size 1"	lf. 20		
		Pipe size 3/4"	lf. 20		
		Pipe size 1/2"	lf. 10		
		Subtotal pipe & fittings	lf. 165	515	Stl.415, CI. 100
	U	Misc. hangers, etc.		33	CI.6, Steel 27
	U	Valves and cocks	no. 9	52	Brass 42, CI.10
500		HEATING			
		Heaters - Warm Air Furnaces			

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550	A	+15° coal 365,000Btu	no. 1	2443	CI.2300, steel 143
	C	0° coal 457,000 Btu	no. 1	2957	CI.2800, steel 157
	D	-20° coal 504,000 Btu	no. 1	2957	CI.2800, steel 157
	HI	+15° oil & gas 365,000 Btu	no. 1	2313	CI.2170, steel 143
	GL	0° oil & gas 457,000 Btu	no. 1	2807	CI.2650, steel 157
	HM	-20° oil & gas 504,000 Btu	no. 1	2807	CI.2650, steel 157
		Blower 4900 CFM	no. 1	264	CI.25, steel 239
		Motor 1-1/2 HP with controls	no. 1	110	CI.41,Stl.41,Cu.22,Ru.6
		Multiblade exhaust fan 1800 CFM	no. 2	400	CI.40, steel 360
		Motor 1/2 HP	no. 2	100	CI.38, stl.38,Cu.20,Ru.4
		Ducts, metal allowed for ftgs., fastenings, hangers, etc.			
		3 l.f. at furnace & relief duct		400	Steel 400
		Metal exhaust duct		605	Steel 605
		Registers & grilles	no. 21	125	Steel 125
		Firing Equipment - Furnace			
	E	+15° oil burner GPH 4	no. 1	155	CI.124, stl 23, cu.8
		0° oil burner GPH 5	no. 1	250	CI.200, stl 38, cu 12
		-20° oil burner GPH 5	no. 1	250	CI.200, stl 38, cu 12
	I	+15° gas burner 572,000 Btu Input	no. 1	292	CI.257, stl 29, cu 6
	L	0° gas burner 720,000 Btu Input	no. 1	311	CI.274, stl 31, cu 6
	M	-20° gas burner 720,000 Btu Input	no. 1	311	CI.274, stl 31, cu 6
560	EGH	Oil pipe 2" & 3/4"	lf. 90	178	Steel 178
	EGH	Oil fittings & valves 2" & 3/4"	no. 43	45	CI.38, copper 7
	EGH	Reinforcementfor 2000 gal. oil tank		30	Steel 30
		Control Equipment			
		Relay	no. 1	7	Steel 6, copper 1
	ACD	Damper motor	no. 1	8	Steel 7, copper 1
		Thermostats	no. 3	9	Steel 8, copper 1
		Breeching, flue conn. 16" dia.	lf. 10	100	Steel 100
		15 POUNDS PRESSURE STEAM SYSTEM FOR KITCHEN EQUIPMENT:			
		Boiler-Steam System-with trimmings			
540	V	Coal 1000 sf. net IBR Steam	no. 1	2278	CI. 2268, copper 10
	W	Oil 1000 sf. net IBR Steam	no. 1	2510	CI. 2500, copper 10
	VW	Black steel pipe & ftgs. -2" dia.	lf. 80	335	CI. 35, <u>steel 300</u>
	VW	Black steel pipe & ftgs. -1-1/2" dia.	lf. 20	66	CI. 11, <u>steel 55</u>
	VW	Black steel pipe & ftgs. -3/4" dia.	lf. 60	84	CI. 14, <u>steel 70</u>
	VW	Black WI pipe & ftgs.-1-1/2" dia.	lf. 80	246	CI. 26, <u>WI 220</u>
	VW	Black WI pipe & ftgs.-1" dia.	lf. 50	102	CI. 17, WI 85
	VW	Black WI pipe & ftgs.-3/4" dia.	lf. 20	28	CI. 5, WI 23
	VW	Black WI pipe & ftgs.-1/2" dia.	lf. 20	21	CI. 4, <u>WI 17</u>
	VW	Valves and traps	no. 18	60	CI. 30, <u>copper 30</u>
	VW	Misc. hangers, etc.		30	CI. 10, steel 20
	VW	Condensate pump 1/5 GPM @ 20# discharge pressure	no. 1	500	CI.200,Stl.276,Cu.20 Ru. 4
550		Firing Equipment - boiler			
	W	Oil burner - 4 GPM	no. 1	155	CI.124,Stl.23,Cu.8
	W	Oil lines - 3/4" dia.	lf. 40	45	Steel 45
560	W	Oil line fittings & valves 3/4"		15	CI. 10, copper 5
	VW	Boiler water level controller	no. 1	32	CI. 25, copper 7
570		Breeching, flue conn. 12" dia.	lf. 20	160	Steel 160

List No. 18 - 150
INCLUDES CAFETERIA
Sheet 4 of 4
Rev. Oct. 15, 1943

Series WD-1, Project Facilities
Community Building (150)
With Cafeteria

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. lbs.	Composition of Weights lbs.
		TOTAL WEIGHT OF CONTROLLED MATERIALS - "A" PRODUCTS			
		STRUCTURE - Constant		1342	Steel 1342
		ELECTRICAL - Constant		119.2	Copper 119.2
		PLUMBING - Constant		1375	Steel 1375
		Var. U		415	Steel 415
		HEATING - Constant		400	Steel 400
		Var. EGH		208	Steel 208
		STEAM SYSTEM - Var. V		770	Steel 770
		Var. W		815	Steel 815

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series: WD-1, Project Facilities Building: Community Bldg. (150) & Cafeteria

-WPB APPROVED LIST-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment numbers on drawings.			
650		HOUSEHOLD EQUIPMENT			
		(1) Refrigerator - meat	no. 1	277	CI 50, Stl 216, Zn 11
		(1) Refrigerator - dairy	no. 1	278	CI 35, Stl 264, Zn 14
		(1) Refrigerator - veg. & ice	no. 1	262	CI 35, Stl 216, Zn 11
		(2) Refrigeration compressors, cooling units & accessories (Comp. motors 2½ HP & 1-1HP)		988	Stl. 686, CI 187, Copper 76, Zn 39
		(4) Sink veg.	no. 1	109	CI 4, Stl 100, Zn 5
		(6) Butcher sink	no. 1	94	CI 2, Stl 88, Zn 4
	*	(13) Ranges - coal	no. 2	2400	CI 1900, Stl 500
	*	(13) Ranges - gas	no. 2	2685	CI 2185, Stl 500
		(14A) Hood & smoke pipe over ranges & pastry stove	no. 1	240	CI 15, Steel 225
		(14C) Hood over dishwasher	no. 1	85	CI 10, Steel 75
	VW	(15) Bain marie - steam	no. 1	127	CI 2, Stl 119, Zn 6
	U	(15) Bain marie - gas	no. 1	107	CI 2, Stl 100, Zn 5
		(15A) Potrack hook	no. 1	11	Steel 10, Zinc 1
		(15B) Pot sink	no. 1	130	CI 4, Stl 120, Zn 6
		(19) Salad sink	no. 1	68	CI 2, Stl 63, Zn 3
	*	(24) Pastry stove - coal	no. 1	60	CI 40, Steel 20
	*	(24) Pastry stove - gas	no. 1	175	CI 155, Steel 20
		(27) Clean dish table	no. 1	147	Steel 140, zinc 7
	VW	(28) Dishwashing machine - steam	no. 1	788	CI 110 Stl 640 Br 2 Zn 36
	U	(28) Dishwashing machine - gas	no. 1	818	CI 140, Stl 640, Zn 36 Brass 2
		(29) Soiled dish table, sink swill sink & hopper	no. 1	159	Steel 150, zinc 9
		(30) Clean glass sink	no. 1	63	Steel 60, zinc 3
		(32) Slicer meat	no. 1	66	CI 50, Stl 15, Br 1
		(33) Urn stand	no. 1	42	Steel 40, zinc 2
		(34) Ice cream cab.	no. 1	214	CI 60, Stl 150, Br 4
		(34A) Dishwasher vat	no. 1	11	Steel 10, zinc 1
		(35) Water cooler	no. 1	145	Stl 133, Br 5, Zn 7
		(40B) Salad pan	no. 1	116	Stl 110, zinc 6
		(40F) Dessert pan	no. 1	170	Stl 161, zinc 9
		(40I) Sink	no. 1	21	Steel 20, zinc 1
	VW	(41) Urns - steam	no. 3	128	Stl 90, Br 35 Tin 3
	U	(41) Urns - gas	no. 3	108	Stl 70, Br 35, Tin 3
		Dish truck	no. 1	30	CI 30
	*	Toaster - gas	no. 1	75	Stl 72, cu. 1, zn 2
	*	Toaster - electric	no. 1	107	Stl 100, cu 4, zn 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Community Building (150) No Cafeteria
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - concrete first floor on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 297	38.6	Steel 34.6, zinc 4
260		Sheet metal, flashings, chimney only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs will change to)		64	Lead 64)
280		Glazing points		1.4	Zinc 1.4
290		Builders Hardware			
		Doors - outside	no. 5		
		Doors - inside	no. 10		
		Windows	no. 29		
		Misc. cabinets, wickets, etc.	no. 6		
		Fire exit bolts	no. 5		
		Vault door	no. 1		
		Door closers	no. 11		
		Folding doors, track	no. 8		
		Total builders hardware		389	Steel 370, brass 19
		Rough hardware *			
		Nails, screws, etc.			
		Plain		814	Steel 814
		Galvanized		60	Steel 57, zinc 3
		*Under Rough Hardware, 85% of steel is classed as "A" Product			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	no. 1	9.7	Steel 8.7, copper 1
		Panelboards:			
		30A - 2P Circuits	no. 2	10.4	Steel 9.4, copper 1
		30A - 1P "	no. 8	18	Steel 16, copper 2
330		Conductors (equiv. 1.f. single wire)			
		#14 wire	1f 2100	27	Copper 27
		# 6 wire	1f. 100	8	Copper 8
340		Outlet boxes (nonmetallic)	no. 50		
350		Switches	no. 12	2.4	Steel 1.2, copper 1.2
		Receptacles	no. 9	1.8	Steel 0.9, copper 0.9
360		Straps, misc.		4.5	Steel 4.5
370		Solder		1.1	
380		Fixtures	no. 29	11.6	Steel 8.7, copper 2.9
400		PLUMBING			
420		Fixtures - nonmetallic, 2 WC, 2 Lavs. & 1 S.S.	no. 5		
420		Trim for above fixtures	no. 5	51	Stl 2 CI 45 Br 3 Ru 1
430		CI pipe & fittings, size 3"	1f. 10		
		size 2"	1f. 60		
		Subtotal pipe & fittings	1f. 70	500	CI 500
		Galv. steel pipe, size 1-1/2"	1f. 20		
		size 1-1/4"	1f. 30		

CRITICAL MATERIAL LIST
FOR
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building Community Buildings (75) with Cafeteria
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - concrete first floor on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined Weights Indicate Materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 386	50.2	Steel 45.2, zinc 5.0
260		Sheet metal, flashings, chimney only (If lead flashing is used, the total of 24 lbs. will change to		24	Steel 22.8, zinc 1.2
280		Glazing points		2	Lead 128) Zinc 2
290		Builders Hardware			
		Doors - outside	no. 5		
		Doors - inside	no. 21		
		Windows	no. 40		
		Misc. cabinets, wickets, etc.	no. 11		
		Fire exit bolts	no. 6		
		Vault door	no. 1		
		Door closers	no. 10		
		Total builders hardware		315	Steel 299.2 brass 15.8
		Rough Hardware*			
		Nails, screws, etc.			
		Plain		1048	Steel 1048
		Galvanized		88	Steel 83.6, zinc 4.4
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 200A-3P-2B & SN	no. 1	42	Steel 32, copper 10
		Panelboards:			
		100A - 2P Circuits	no. 1	9.7	Steel 8.7, copper 1
		30A - 2P Circuits	no. 6	31.2	Steel 28.2, copper 3
		30A - 1P Circuits	no. 16	36	Steel 32, copper 4
330		Conductors (equiv. 1.f. single wire) - #14 wire	1f 2700	35	Copper 35
		#12 wire	1f 300	6	Copper 6
		# 4 wire	1f. 210	26.8	Copper 26.8
		# 0 wire	1f. 100	32	Copper 32
340		Outlet boxes (nonmetallic)	no. 68		
350		Switches	no. 16	3.2	Steel 1.6, copper 1.6
		Receptacles	no. 18	3.6	Steel 1.8, copper 1.8
360		Straps, misc.		6	Steel 6
370		Solder		1.5	
380		Fixtures	no. 34	13.6	Steel 10.2, copper 3.4

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
400		PLUMBING			
420		Fixtures - nonmetallic - 4 W. C., 4 Lavs., & 2 S. S.	no. 10		
		Trim for above fixtures & 4 sinks	no. 14	147	CI 123 Stl 11 Br 11 Ru2
430		CI pipe & fittings size 4"	lf. 5		
		size 3"	lf. 55		
		size 2"	lf 150		
		Subtotal pipe & fittings	lf 195	1465	CI 1465
		Galv. steel pipe size 1-1/2"	lf 100		
		size 1-1/4"	lf. 40		
		Subtotal steel pipe	lf 140	440	Stl 361 CI 60 Zn 19
		(If lead is used for roughing make-up of waste pipe, the total of 440 lbs. will change to - - - - -)	- - - - -	515	CI 72 Stl 323 Zn 21, Lead 99)
		Caiking and flashing lead		351	Lead 351
		Misc. hangers, etc.		50	CI 10, steel 40
440		Galv. water pipe & fittings			
		Pipe size 1-1/2"	lf. 20		
		Pipe size 1-1/4"	lf 115		
		Pipe size 1"	lf. 15		
		Subtotal pipe and fittings	lf 250	390	Stl 300 CI 70 Zn 20
		Pipe size 3/4"	lf. 50		
		Pipe size 1/2"	lf 450		
		Pipe size 3/8"	lf. 25		
		Subtotal pipe & fittings	lf 525	515	Stl 400 CI 90 Zn 25
		Misc. hangers, etc.		45	CI 5 steel 40
		Valves and cocks	no. 6	18	Brass 18
450		Water Heaters			
	ACD	250 GPH/100 deg. rise coal htr.	no. 1	1350	CI 1350
	ILM	250 GPH/100 deg. rise auto. gas htr. inc. firing equipment	no. 1	1494	CI 1450 Stl 40 Br 4
	EGH	250 GPH/100 deg. rise auto. oil htr. inc. firing equipment	no. 1	1550	CI 1505 Stl 20 Cu 5
		150 gallon storage tank	no. 1	300	Steel 300
		Flue pipe, 24 ga.	sf. 40	40	Steel 40
460		Control Equipment			
		Pressure relief valve	no. 1	1	Brass 1
		Temperature relief valve	no. 1	1	Brass 1
		Thermometer	no. 1	2	CI 1, brass 1
	ACD	Auto. damper regulator	no. 1	11	CI 7 steel 3 brass 1
480	U	Black gas pipe & fittings			
		Pipe size 2"	lf. 10		
		Pipe size 1-1/2"	lf. 20		
		Pipe size 1-1/4"	lf. 35		
		Pipe size 1"	lf. 15		
		Pipe size 3/4"	lf. 15		
		Pipe size 1/2"	lf. 30		
		Subtotal pipe & fittings	lf 125	270	Stl 220 CI 50
	U	Misc. hangers, etc.		10	Steel 10
	U	Valves and cocks	no. 5	18	Brass 18
500		HEATING			
530		Heaters - Warm Air Furnaces			
	A	+15° coal 272,000 Btu	no. 1	1852	CI 1750 steel 102
	C	0° coal 339,000 Btu	no. 1	2443	CI 2300 steel 143
	D	-20° coal 373,000 Btu	no. 1	2443	CI 2300 steel 143

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
530	(Cont.)				
	EI	+15° oil & gas 272,000 Btu	no. 1	1752	CI 1650 steel 102
	GL	0° oil & gas 339,000 Btu	no. 1	2313	CI 2170 steel 143
	HM	- 20° oil & gas 373,000 Btu	no. 1	2315	CI 2170 steel 143
		Blower 3700 CFM	no. 1	264	CI 25, steel 239
		Motor 1-1/2 HP with controls	no. 1	110	CI 41 Stl 11 Cu 22 Ru 6
		Multiblade exhaust fan	no. 1	200	CI 20, steel 180
		Motor 1/2 HP	no. 1	50	CI 19 stl 19 Cu 10 Ru 2
		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace & relief duct		310	Steel 310
		Metal exhaust duct		365	Steel 365
		Registers & grilles	no. 17	100	Steel 100
550		Firing Equipment - Furnace			
	E	+15° oil burner GPH 3	no. 1	155	CI 124 Stl 23 Cu 8
	G	0° oil burner GPH 4	no. 1	155	CI 124 Stl 23 Cu 8
	H	-20° oil burner GPH 4	no. 1	155	CI 125 Stl 23 Cu 8
	I	+15° gas burner 430,000 Btu input	no. 1	279	CI 245 Stl 28, Cu 6
	L	0° gas burner 572,000 Btu input	no. 1	292	CI 257 Stl 29 Cu 6
	M	-20° gas burner 572,000 Btu input	no. 1	292	CI 257 Stl 29 Cu 6
	EGH	Oil pipe 2" & 3/4"	lf. 90	178	Steel 178
	EGH	Oil fittings & valves 2" & 3/4"	no. 43	45	CI 38, copper 7
	EGH	Reinforcement for 1000 gal. oil tank		15	Steel 15
560		Control Equipment			
		Relay	no. 1	7	Steel 6 copper 1
	ACD	Damper motor	no. 1	8	Steel 7 copper 1
		Thermostats	no. 3	9	Steel 8 copper 1
570		Breeching, flue conn. 15" dia.	lf. 10	100	Steel 100
TOTAL WEIGHTS OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE: Constant		964	Steel 964
		ELECTRICAL: Constant		99.8	Copper 99.8
		PLUMBING: Constant		1061	Steel 1061
		Variant U.		220	Steel 220
		HEATING: Constant		310	Steel 310
		Variant EGH		193	Steel 193

CRITICAL MATERIAL LIST
FOR
EQUIPMENT

Series WD-1, Project Facilities Building Community Building (75)

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER KITCHEN	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
600		Figures in brackets refer to equipment numbers on drawings.			
650		HOUSEHOLD EQUIPMENT			
		(1) Refrigerator - general	no. 1	314	CI 50 steel 251 zinc 13
		(2) Refrigeration Compressor, cooling unit & accessories comp. Motor 1 HP		434	Stl 298 CI 67 Cu 40 Zn 29
		(4) Sink	no. 1	109	CI 4 steel 100 zinc 5
	*	(13) Range - coal	no. 1	1300	CI 1000, steel 300
	*	(13) Range - gas	no. 1	1500	CI 1200, steel 300
		(14A) Hood over range	no. 1	140	CI 10, steel 130
	*	(15) Bain marie & steam table-gas	no. 1	219	CI 4 steel 205 zinc 10
	*	(15) Bain marie & steam table-elec	no. 1	227	CI 4 Stl 211 Cu 2 Zn 10
		(15B) Pot sink	no. 1	130	CI 4 steel 120 zinc 6
		(27) Clean dish table	no. 1	110	Steel 105, zinc 5
		(28) Dishwashing sinks and soiled table	no. 1	130	CI 15 steel 205 zinc 10
		(33) Urn stand	no. 1	42	Steel 40, zinc 2
	*	(41) Urns - gas	no. 2	98	Steel 76 brass 20 tin 2
	*	(41) Urns - electric	no. 2	25	Steel 20 Cu 4 Zinc 1
	*	Toaster - gas	no. 1	75	Steel 72, Cu 1, Zinc 2
	*	Toaster - electric	no. 1	107	Steel 100 Cu 4 Zinc 3
	*	From items marked thus, use equipment to conform with fuel selected.			

CRITICAL MATERIAL LIST
For
FPHA STANDARD BUILDINGS

Series: WD-1, Project Facilities Building: Community Buildings (75) No Cafeteria
Heating System: Forced Warm Air
Type Construction: Wood frame and part masonry - concrete first floor on ground

-WPB Approved List-

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
		Underlined weights indicate materials classed as "A" Products			
200		STRUCTURE			
240		Insect screen	sf. 238	31.0	Steel 27.9, zinc 3.1
260		Sheet metal flashings. chimneys only		12	Steel 11.4, zinc 0.6
		(If lead flashing is used, the total of 12 lbs. will change to 64		64	Lead 64)
280		Glazing points		1.2	Zinc 1.2
290		Builders Hardware			
		Doors - outside	no. 4		
		Doors - inside	no. 10		
		Windows	no. 23		
		Misc. casirets, wickets, etc.	no. 6		
		Fire exit bolts	no. 4		
		Vault door	no. 1		
		Door closers	no. 5		
		Total builders hardware		200	Steel 190, brass 10
		Rough Hardware *			
		Nails, screws, etc.			
		Plain		578	Steel 578
		Galvanized		46	Steel 43.7, zinc 2.3
		*Under Rough Hardware, 85% of Steel is classed as "A" Product.			
300		ELECTRICAL			
320		Entrance 60A-3P-2B & SN	no. 1	9.7	Steel 8.7, copper 1
		Panelboards:			
		30A - 2P Circuits	no. 2	10.4	Steel 9.4, copper 1
		30A - 1P Circuits	no. 6	13.5	Steel 12, copper 1.5
330		Conductors (equiv. l.f. single wire)			
		#14 wire	lf 1700	22	Copper 22
		# 8 wire	lf 100	5	Copper 5
340		Outlet boxes (nonmetallic)	no 41		
350		Switches	no. 11	2.2	Steel 1.1, copper 1.1
		Receptables	no. 8	1.6	Steel 0.8 copper 0.8
360		Straps, misc.		4	Steel 4
370		Solder		1	
380		Fixtures	no. 22	8.8	Steel 6.6, copper 2.2
400		PLUMBING			
420		Fixtures - nonmetallic - 2 W.C.			
		2 lavs, & 1 s.s.	no. 5		
		Trim for above fixtures.	no. 5	51	CI 45 Stl 2 Br 3 Ru 1

Crit. List No.	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
430		CI pipe & fitting size 3" size 2" Subtotal pipe & fittings Galv. steel pipe size 1-1/2" size 1-1/4" Subtotal steel pipe (If lead is used for roughing make-up of waste pipe, the total of 134 lbs will change to	lf. 10 lf. 60 lf. 70 lf. 20 lf. 30 lf. 50 lf. 50	500 134	CI 500 Steel 118, CI. 10, Zinc 6
440		Calking and flashing lead Misc. hangers, etc. Galv. water pipe & fittings Pipe size 1" Pipe size 3/4" Pipe size 1/2" Pipe size 3/8" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks Water Heaters	 lf. 20 lf. 50 lf. 130 lf. 15 lf. 195 no. 3	 42 105 25 136 105 25 100	CI. 13, Stl. 104, Zinc 5, Lead 14) Lead 105 CI 5, steel 20 Steel 32, CI. 7 Zinc 2 Steel 175, CI. 40, Zinc. 9 CI 5, steel 15 Brass 10
450	ACD ILM EGH	13 GPH/100 deg. rise coal htr. 20 GPH/100 deg. rise auto. gas storage type, 20 gallon self contained tank 20 GPH/100 deg. rise auto. oil storage type with 30 gallon self contained tank	no. 1 no. 1 no. 1	100 145 155	CI 100 CI 7 Stl. 132 Br 3, Zn 3 CI 12 Stl 206, Zn 3 Cu 4
460	ACD ACD EGH ILM	30 gallon storage tank Flue pipe, 24 ga. (Flue pipe, 24 ga. Control Equipment Pressure relief valve Temperature relief valve Thermometer	no. 1 sf. 15 sf. 12 no. 1 no. 1 no. 1 no. 1	70 15 12 1 1 2 11	Steel 67, zinc 3 Steel 15 Steel 12 Brass 1 Brass 1 CI 1. brass 1 CI 7, steel 3, brass 1
480	U U	Auto. damper regulator Black gas pipe & fittings Pipe size 1-1/2" Pipe size 3/4" Subtotal pipe & fittings Misc. hangers, etc. Valves and cocks	 lf. 25 lf. 20 lf. 45 no. 3	 110 5 12	Steel 90, CI. 20 Steel 5 Brass 12
500 530	A C D EI GL HM	HEATING Heaters - Warm Air Furnaces +15° coal 144, 000 Btu 0° coal 179,000 Btu -20° coal 196,000 Btu +15° oil & gas 144,000 Btu 0° oil & gas 179,000 Btu -20° oil & gas 196,000 Btu Blower 2000 CFM Motor 1/2 HP with controls	no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1 no. 1	1447 1447 1447 1367 1367 1367 190 50	CI 1350, steel 97 CI 1350, steel 97 CI 1350, steel 97 CI 1270, steel 97 CI 1270, steel 97 CI 1270, steel 97 CI 15, steel 175 CI 19, Stl 19 Cu 10 Ru 2

Crit. List No	Var.	Critical Material PER BUILDING	Dim. or No.	Total Wts. Lbs.	Composition of Weights Lbs.
550		Ducts, metal allowed for ftgs., fastenings, hangers, etc., 3 l.f. at furnace, & relief duct		230	Steel 230
		Registers & grilles	no. 14	85	Steel 85
		Firing Equipment - Furnaces			
	E	+15° oil burner GFH 2	no. 1	155	CI 124, Stl 23, Cu 8
	G	0° oil burner GFH 2	no. 1	155	CI 124, Stl 23, Cu 8
	H	-20° oil burner GPH 2	no. 1	155	CI 124, Stl 23, Cu 8
	I	+150 gas burner 286,000 Btu input	no. 1	256	CI 225, Stl 26, Cu 5
	L	0° gas burner 286,000 Btu input	no. 1	256	CI 225, Stl 26, Cu 5
	M	-20° gas burner 286,000 Btu input	no. 1	256	CI 225, Stl 26, Cu 5
	EGH	Oil pipe 2" x 3/4"	lf. 90	178	Steel 178
	EGH	Oil fitting & valves	no. 43	45	CI 38, copper 7
	EGH	Reinforcement for 1000 gal. oil tank		15	Steel 15
560		Control Equipment			
		Relay	no. 1	7	Steel 6, copper 1
	ACD	Damper motor	no. 1	8	Steel 7, copper 1
570		Thermostats	no. 3	9	Steel 8, copper 1
		Breeching, flue conn. 15" dia.	lf. 10	100	Steel 100
TOTAL WEIGHT OF CONTROLLED MATERIALS - "A" PRODUCTS					
		STRUCTURE - Constant		530	Steel 530
		ELECTRICAL - Constant		27	Copper 27
		PLUMBING - Constant		327	Steel 327
		Var. U		90	Steel 90
		HEATING - Constant		230	Steel 230
		Var. EGH		193	Steel 193