

TABLE 8. DEGREE-DAYS FOR INDUSTRIAL HEATING IN VARIOUS CITIES OF THE UNITED STATES*
Annual Totals for a Normal Heating Season.

STATE	CITY	DEGREE-DAYS		STATE	CITY	DEGREE-DAYS	
		45F Base	55F Base			45F Base	55F Base
Ala.	Birmingham	6	853	Mich.	Houghton	4029	6112
	Mobile		245		Lansing	2537	4444
	Montgomery		504		Marquette	3713	5842
Aris.	Phoenix	229			Port Huron	2630	4275
	Yuma	37			Saginaw	2312	4552
Ark.	Fort Smith	329	1478		Sault Ste. Marie	4049	6575
	Little Rock	276	1188	Minn.	Duluth	4419	6774
Cal.	Eureka		1328		Minneapolis	3309	5417
	Fresno	3	718		Moorhead	4796	6572
	Independence	519	1930		St. Paul	2497	5497
	Los Angeles		17	Miss.	Vicksburg		468
	Red Bluff	24	822	Mo.	Columbia	1252	2939
	Sacramento	3	803		Hannibal	1635	3231
	San Diego		26		Kansas City	1483	2930
	San Francisco		384		St. Louis	1186	2745
	San Luis Obispo		230		Springfield	982	2423
Col.	Denver	1548	3440	Mont.	Havre	3736	5874
	Grand Junction	1757	3433		Helena	2843	5071
	Pueblo	1499	3281		Kalispell	2874	5131
Conn.	Meriden		734	Neb.	Lincoln	3023	3850
	New Haven	1769	3237		North Platte	2291	4152
D. C.	Washington	1041	2487		Omaha	2284	3089
Fla.	Pensacola		127		Valentine	2833	4801
Ga.	Atlanta	109	1165	Nev.	Winnemucca	1670	3468
	Augusta		661	N. H.	Concord	2646	4640
	Macon		711	N. J.	Atlantic City	1123	2904
	Savannah		231	N. M.	Sante Fe	1634	3106
Idaho	Boise	1045	2814	N. Y.	Albany	2018	4302
	Lewiston	1034	2688		Binghamton	2073	4296
	Pocatello	2161	4140		Buffalo	2359	4316
Ill.	Cairo	749	2119		Ithaca	2412	4023
	Chicago	1969	3743		New York	1098	3089
	Springfield	1677	3289		Oswego	2274	4353
Ind.	Evansville	799	2335		Rochester	2341	4231
	Indianapolis	1397	2829	N. C.	Charlotte	172	1388
Ia.	Charles City	3370	5293		Hatteras		718
	Davenport	2296	4142		Raleigh	229	1080
	Des Moines	2440	4180		Wilmington		729
	Dubuque	1628	4468	N. D.	Bismarck	3831	6468
	Keokuk	1926	3579		Williston	4616	6399
	Sioux City	2894	4732	Ohio	Cincinnati	1376	3003
Kan.	Concordia	1652	2690		Cleveland	1525	3795
	Dodge City	1385	2962		Columbus	1600	3235
	Topeka	1518	1811		Dayton	1487	3147
	Wichita	1152	2587		Sandusky	1949	3425
Ky.	Lexington		2557		Toledo	1990	3757
	Louisville	1073	2294	Okla.	Oklahoma City	600	1835
La.	New Orleans		30	Ore.	Baker	2321	4507
	Shreveport		565		Portland	373	1911
Me.	Eastport	2856	5236		Roseburg	272	1668
	Portland	2530	4572	Pa.	Erie	2337	3837
Md.	Baltimore	988	2491		Harrisburg	1565	3236
Mass.	Boston	1787	3603		Philadelphia	1122	2695
	Nantucket	1514	3419		Seranton	1938	3755
					Pittsburgh	1377	3028
Mich.	Alpena	3131	5499	R. I.	Block Island	871	3398
	Detroit	2240	4089	S. C.	Charleston		338
	Escanaba	3699	5918		Columbia		759
	Grand Haven	2405	3435		Greenville	297	1502
	Grand Rapids	2332	4177				

TABLE 8. DEGREE-DAYS FOR INDUSTRIAL HEATING IN VARIOUS CITIES OF THE UNITED STATES (Continued).
Annual Totals for a Normal Heating Season.

STATE	CITY	DEGREE-DAYS		STATE	CITY	DEGREE-DAYS	
		45F Base	55F Base			45F Base	55F Base
S. D.	Huron	3743	5678	Vt.	Burlington	3014	4984
	Pierre	3162	5234		Northfield	3652	7121
	Rapid City	2590	4928	Va.	Lynchburg	554	1928
	Yankton	2898	6045		Norfolk	260	1496
Tenn.	Chattanooga	242	1398		Richmond	549	1895
	Knoxville	431	1741	Wash.	North Head	184	2062
	Memphis	166	1284		Seattle	408	2185
	Nashville	419	1678		Spokane	1741	3672
Tex.	Abilene		915		Tacoma	507	2365
	Amarillo	786	2220		Walla Walla	993	2585
	El Paso	32	919	W. Va.	Elkins	1506	3327
	Fort Worth		754		Parkersburg	1147	2784
	Galveston		43	Wis.	Green Bay	3318	5321
	Houston		110		La Crosse	3034	3992
	Palestine		484		Madison	3067	4850
	San Antonio		305		Milwaukee	2657	4617
Utah	Modena	1978	3981	Wyo.	Cheyenne	2500	4700
	Salt Lake City	1475	3202		Lander	3208	5450

* From *Degree-Day Handbook*, by C. Strook and C. H. B. Hotchkiss (The Industrial Press, 1937, pp. 132-134). Values are not coordinated with Table 2 which is from a later source.

of degree-days, plant operators frequently compute each month the fuel burned per degree-day by the heating plant. The resulting unit value, by eliminating the outside temperature variable, indicates whether the operating efficiency of the plant is above or below the previous month or year.

INDUSTRIAL DEGREE-DAYS

When estimating the heating requirements of warehouses, factories, and other buildings where the inside temperature to be maintained differs greatly from the usual inside temperature range of 68 to 72 F, it is common to use degree-days based on temperatures of 55 to 45 F. These are generally referred to as industrial degree-days, and are listed in Table 8 for a number of cities using both 55 F and 45 F as the base. In general, the degree-days (55 F base) are used when the temperature of the heated space is to be maintained at approximately 60 F. For an inside temperature of about 50 F, the degree-days calculated on a 45 F base should be used.

The industrial degree-days are useful for estimating fuel consumption by comparison between localities in which the difference in degree-days is not too great, and where the known fuel consumption of one building may be used to determine unit consumption per degree-day.

MAXIMUM DEMANDS AND LOAD FACTORS

In one form of district heating rates, a portion of the charge is based upon the maximum demand of the building. The maximum demand may be measured in several different ways. It may be taken as the instantaneous peak or as the rate of use during any specified interval. One method is to take the average of the three highest hours during the winter. These figures are shown for a number of buildings in Detroit in Table 9.¹²