

TABLE 3. DEGREE-DAYS FOR CITIES IN THE UNITED STATES AND CANADA<sup>a</sup>

| STATE  | CITY           | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | Total |
|--------|----------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| Ala.   | Birmingham     | 617  | 476  | 298  | 58   |     |      |      |      |       | 51   | 333  | 577  | 2410  |
|        | Mobile         | 418  | 288  | 164  | 11   |     |      |      |      |       | 3    | 192  | 397  | 1473  |
| Ariz.  | Phoenix        | 428  | 277  | 133  | 4    |     |      |      |      |       |      | 160  | 403  | 1405  |
| Ark.   | Fort Smith     | 790  | 622  | 384  | 97   |     |      |      |      |       | 89   | 420  | 710  | 3112  |
|        | Little Rock    | 732  | 563  | 372  | 92   |     |      |      |      |       | 72   | 387  | 645  | 2863  |
| Calif. | Los Angeles    | 322  | 266  | 232  | 168  | 87  | 3    |      |      |       | 11   | 123  | 260  | 1472  |
|        | San Francisco  | 468  | 358  | 335  | 300  | 254 | 195  | 202  | 183  | 123   | 140  | 261  | 425  | 3244  |
| Colo.  | Denver         | 1091 | 904  | 797  | 537  | 273 | 18   |      |      |       | 76   | 428  | 756  | 1014  |
|        | Grand Junction | 1271 | 899  | 663  | 378  | 123 |      |      |      |       | 31   | 378  | 771  | 1162  |
| Conn.  | New Haven      | 1141 | 1008 | 905  | 534  | 220 | 10   |      |      |       | 55   | 347  | 690  | 1008  |
| D. C.  | Washington     | 980  | 832  | 694  | 351  | 61  |      |      |      |       | 3    | 236  | 594  | 880   |
| Fla.   | Jacksonville   | 298  | 196  | 76   |      |     |      |      |      |       |      | 88   | 270  | 928   |
| Ga.    | Atlanta        | 694  | 552  | 403  | 120  |     |      |      |      |       | 80   | 387  | 629  | 2865  |
|        | Savannah       | 422  | 308  | 186  | 15   |     |      |      |      |       | 7    | 195  | 391  | 1524  |
| Idaho. | Boise          | 1091 | 846  | 691  | 438  | 245 | 30   |      |      |       | 102  | 431  | 720  | 1020  |
| Ill.   | Chicago        | 1237 | 1053 | 890  | 519  | 202 | 3    |      |      |       | 17   | 307  | 714  | 1085  |
|        | Springfield    | 1194 | 994  | 769  | 369  | 71  |      |      |      |       | 7    | 285  | 684  | 1032  |
| Ind.   | Evansville     | 976  | 804  | 592  | 249  | 16  |      |      |      |       | 174  | 552  | 865  | 4228  |
|        | Indianapolis   | 1135 | 949  | 775  | 387  | 77  |      |      |      |       | 12   | 288  | 681  | 1017  |
| Iowa.  | Des Moines     | 1392 | 1156 | 902  | 447  | 117 |      |      |      |       | 28   | 360  | 798  | 1209  |
|        | Sioux City     | 1463 | 1232 | 1001 | 516  | 142 |      |      |      |       | 68   | 437  | 894  | 1299  |
| Kan.   | Dodge City     | 1116 | 890  | 688  | 342  | 65  |      |      |      |       | 3    | 276  | 672  | 1004  |
|        | Topeka         | 1159 | 952  | 694  | 309  | 49  |      |      |      |       | 3    | 248  | 666  | 1023  |
| Ky.    | Lexington      | 995  | 829  | 660  | 321  | 46  |      |      |      |       | 2    | 236  | 606  | 905   |
|        | Louisville     | 949  | 778  | 608  | 258  | 16  |      |      |      |       | 178  | 549  | 849  | 1185  |
| La.    | New Orleans    | 335  | 216  | 71   |      |     |      |      |      |       |      | 104  | 291  | 1017  |
|        | Shreveport     | 558  | 395  | 208  | 16   |     |      |      |      |       | 24   | 270  | 493  | 1964  |
| Me.    | Eastport       | 1383 | 1218 | 1119 | 780  | 536 | 297  | 143  | 133  | 276   | 542  | 849  | 1200 | 8476  |
|        | Portland       | 1321 | 1154 | 1029 | 660  | 363 | 79   |      | 5    | 162   | 468  | 810  | 1159 | 7210  |
| Md.    | Baltimore      | 967  | 829  | 704  | 342  | 47  |      |      |      |       | 2    | 211  | 561  | 862   |
| Mass.  | Boston         | 1150 | 1014 | 911  | 558  | 245 | 13   |      |      |       | 61   | 353  | 690  | 1008  |
| Mich.  | Detroit        | 1259 | 1112 | 980  | 564  | 217 | 4    |      |      |       | 58   | 388  | 771  | 1107  |
|        | Marquette      | 1510 | 1364 | 1246 | 816  | 496 | 183  | 12   | 37   | 225   | 567  | 951  | 1314 | 8721  |
| Minn.  | Duluth         | 1770 | 1501 | 1280 | 840  | 549 | 234  | 32   | 74   | 297   | 648  | 1050 | 1522 | 9797  |
|        | Minneapolis    | 1621 | 1375 | 1097 | 558  | 226 | 9    |      |      |       | 113  | 499  | 978  | 1407  |
| Miss.  | Vicksburg      | 521  | 370  | 202  | 19   |     |      |      |      |       | 22   | 252  | 465  | 1851  |
| Mo.    | Kansas City    | 1141 | 946  | 691  | 306  | 43  |      |      |      |       | 2    | 226  | 639  | 1008  |
|        | St. Louis      | 1051 | 846  | 648  | 267  | 15  |      |      |      |       | 191  | 588  | 933  | 4539  |
|        | Springfield    | 976  | 834  | 614  | 270  | 41  |      |      |      |       | 2    | 211  | 579  | 893   |
| Mont.  | Havre          | 1615 | 1439 | 1175 | 639  | 360 | 94   |      | 22   | 258   | 636  | 1014 | 1383 | 8635  |
| Neb.   | Lincoln        | 1308 | 1089 | 852  | 405  | 107 |      |      |      |       | 21   | 335  | 777  | 1159  |
|        | Omaha          | 1336 | 1106 | 868  | 414  | 91  |      |      |      |       | 15   | 332  | 795  | 1197  |
| Nev.   | Winnemucca     | 1128 | 882  | 775  | 549  | 344 | 76   |      |      |       | 175  | 518  | 798  | 1085  |
| N. H.  | Concord        | 1345 | 1182 | 1060 | 648  | 332 | 68   |      | 4    | 171   | 474  | 819  | 1184 | 7287  |
| N. J.  | Atlantic City  | 1008 | 879  | 818  | 516  | 214 | 8    |      |      |       | 10   | 251  | 582  | 887   |
| N. M.  | Santa Fe       | 1122 | 893  | 784  | 549  | 288 | 30   |      |      |       | 122  | 453  | 783  | 1063  |
| N. Y.  | Albany         | 1299 | 1145 | 1001 | 546  | 177 | 1    |      |      |       | 69   | 400  | 771  | 1132  |
|        | Buffalo        | 1252 | 1140 | 1051 | 666  | 322 | 41   |      |      |       | 81   | 406  | 768  | 1091  |
|        | New York       | 1057 | 944  | 846  | 468  | 139 |      |      |      |       | 12   | 270  | 624  | 930   |
| N. C.  | Raleigh        | 741  | 610  | 459  | 168  | 1   |      |      |      |       | 98   | 420  | 682  | 3179  |
|        | Wilmington     | 574  | 479  | 363  | 94   |     |      |      |      |       | 31   | 270  | 493  | 2304  |
| N. D.  | Bismark        | 1773 | 1532 | 1265 | 687  | 326 | 55   |      | 5    | 207   | 623  | 1095 | 1559 | 9127  |
| Ohio.  | Cincinnati     | 1076 | 902  | 747  | 378  | 71  |      |      |      |       | 10   | 288  | 675  | 985   |
|        | Cleveland      | 1194 | 1053 | 942  | 564  | 220 | 6    |      |      |       | 47   | 353  | 723  | 1048  |
|        | Columbus       | 1128 | 960  | 803  | 414  | 93  |      |      |      |       | 15   | 304  | 693  | 1011  |
| Okla.  | Oklahoma City  | 887  | 711  | 465  | 156  | 3   |      |      |      |       | 120  | 486  | 797  | 3625  |
| Ore.   | Baker          | 1243 | 1008 | 849  | 594  | 412 | 192  | 12   | 27   | 270   | 570  | 870  | 1169 | 7216  |
|        | Portland       | 794  | 641  | 561  | 396  | 251 | 80   |      |      |       | 100  | 335  | 546  | 738   |
| Pa.    | Philadelphia   | 1004 | 871  | 750  | 387  | 77  |      |      |      |       | 3    | 223  | 579  | 890   |

TABLE 3. DEGREE-DAYS FOR CITIES IN THE UNITED STATES AND CANADA<sup>a</sup> (CONCLUDED)

| STATE  | CITY           | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | Total |
|--------|----------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| Pa.    | Pittsburgh     | 1063 | 916  | 787  | 414  | 91  |      |      |      | 15    | 288  | 654  | 955  | 5183  |
|        | Charleston     | 468  | 353  | 236  | 37   |     |      |      |      |       | 54   | 207  | 412  | 1721  |
| S. C.  | Columbia       | 589  | 470  | 304  | 63   |     |      |      |      |       |      | 330  | 552  | 2362  |
|        | Huron          | 1665 | 1420 | 1119 | 597  | 267 | 18   |      |      |       | 112  | 536  | 1005 | 1435  |
| S. D.  | Rapid City     | 1333 | 1165 | 1004 | 621  | 341 | 49   |      |      |       | 140  | 512  | 873  | 1181  |
|        | Knoxville      | 812  | 647  | 505  | 210  | 8   |      |      |      |       |      | 160  | 513  | 766   |
| Tenn.  | Memphis        | 747  | 580  | 394  | 98   |     |      |      |      |       |      | 76   | 399  | 663   |
|        | Nashville      | 818  | 655  | 490  | 180  | 3   |      |      |      |       |      | 130  | 480  | 744   |
| Texas. | El Paso        | 620  | 448  | 285  | 59   |     |      |      |      |       |      | 72   | 369  | 623   |
|        | Fort Worth     | 608  | 468  | 226  | 25   |     |      |      |      |       |      | 24   | 285  | 542   |
|        | Houston        | 381  | 255  | 56   |      |     |      |      |      |       |      | 122  | 329  | 1143  |
|        | San Antonio    | 394  | 269  | 70   |      |     |      |      |      |       |      | 138  | 350  | 1221  |
| Utah.  | Modena         | 1187 | 952  | 831  | 570  | 356 | 62   |      |      |       | 150  | 527  | 858  | 1114  |
|        | Salt Lake City | 1110 | 874  | 722  | 462  | 236 | 12   |      |      |       | 54   | 388  | 717  | 1026  |
| Vt.    | Burlington     | 1432 | 1277 | 1113 | 651  | 264 | 21   |      |      |       | 140  | 490  | 861  | 1259  |
| Va.    | Lynchburg      | 852  | 692  | 549  | 231  | 9   |      |      |      |       | 1    | 202  | 534  | 790   |
|        | Norfolk        | 756  | 624  | 521  | 246  | 19  |      |      |      |       |      | 89   | 408  | 679   |
|        | Richmond       | 840  | 711  | 552  | 252  | 15  |      |      |      |       |      | 167  | 501  | 781   |
| Wash.  | Seattle        | 790  | 669  | 623  | 468  | 326 | 180  | 59   | 59   | 207   | 422  | 582  | 722  | 5107  |
|        | Spokane        | 1162 | 944  | 784  | 498  | 294 | 72   |      |      |       | 174  | 518  | 795  | 1071  |
| W. Va. | Elkins         | 1073 | 935  | 775  | 486  | 180 | 3    |      |      |       | 71   | 394  | 741  | 1001  |
|        | Parkersburg    | 1008 | 862  | 688  | 348  | 55  |      |      |      |       | 10   | 276  | 636  | 924   |
| Wis.   | Green Bay      | 1528 | 1333 | 1128 | 654  | 313 | 35   |      |      |       | 139  | 512  | 930  | 1324  |
|        | LaCrosse       | 1516 | 1282 | 1038 | 534  | 177 | 1    |      |      |       | 87   | 456  | 894  | 1324  |
|        | Milwaukee      | 1376 | 1182 | 1020 | 636  | 338 | 52   |      |      |       | 80   | 431  | 831  | 1206  |
| Wyo.   | Cheyenne       | 1224 | 1056 | 989  | 723  | 456 | 138  |      |      |       | 13   | 240  | 626  | 906   |
|        | Lander         | 1448 | 1190 | 1011 | 678  | 428 | 135  |      |      |       | 18   | 279  | 666  | 1041  |

| PROVINCE | CITY          | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | TOTAL  |
|----------|---------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| Alta.    | Calgary       | 1674 | 1428 | 1240 | 750  | 496 | 270  | 124  | 186  | 450   | 744  | 1170 | 1395 | 9,927  |
|          | Edmonton      | 1829 | 1512 | 1302 | 720  | 434 | 270  | 124  | 186  | 450   | 713  | 1230 | 1519 | 10,289 |
| B. C.    | Vancouver     | 899  | 756  | 713  | 510  | 341 | 180  | 62   | 31   | 270   | 496  | 660  | 837  | 5,555  |
| Man.     | Winnipeg      | 2139 | 1820 | 1581 | 810  | 465 | 90   |      |      | 62    | 270  | 744  | 1320 | 1829   |
| N. B.    | Moncton       | 1519 | 1428 | 1178 | 810  | 465 | 210  |      |      | 93    | 300  | 620  | 930  | 1333   |
| N. S.    | Halifax       | 1302 | 1176 | 1085 | 780  | 496 | 210  |      |      |       | 210  | 496  | 780  | 1147   |
| Ont.     | Ottawa        | 1674 | 1484 | 1271 | 690  | 279 | 30   |      |      |       | 210  | 589  | 990  | 1457   |
|          | Port Arthur   | 1829 | 1624 | 1426 | 900  | 558 | 240  | 62   | 86   | 360   | 713  | 1140 | 1550 | 10,588 |
|          | Toronto       | 1333 | 1204 | 1209 | 720  | 372 | 60   |      |      |       | 180  | 558  | 870  | 1209   |
| P. E. I. | Charlottetown | 1178 | 1120 | 1209 | 870  | 529 | 210  |      |      |       | 600  | 558  | 870  | 1240   |
| Que.     | Montreal      | 1581 | 1428 | 1209 | 720  | 310 |      |      |      |       | 180  | 558  | 960  | 1395   |
|          | Quebec        | 1705 | 1484 | 1333 | 870  | 434 | 120  |      |      | 31    | 270  | 651  | 1050 | 1519   |
| Sask.    | Saskatoon     | 2108 | 1820 | 1581 | 810  | 465 | 210  | 62   | 155  | 450   | 806  | 1290 | 1736 | 11,493 |

<sup>a</sup>Figures for United States cities taken from Degree-Day Normals over the United States, by A. G. Topil (Monthly Weather Review, U. S. Weather Bureau, July, 1937, p. 266). Figures for Canadian cities abstracted from Heating & Ventilating, October, 1939.

### Estimating Gas Consumption

Values of the Unit Fuel Consumption Constant ( $U$ ) for gas are given in Table 4 for various gas heating values, and different types and sizes of heating plants. They are based on an inside design temperature of 70 F and an outside design temperature of 0 F and apply only to these conditions. For other design conditions corrections must be made as given in Table 5. Estimates for industrial buildings where low inside temperatures are maintained cannot be made from this table.