

表 7.2.14 1990 年至 2024 年未妥善管理掩埋場甲烷排放量

| 年份   | 一般掩埋量   | 甲烷修正係數 (MCF) | 可分解有機碳 (DOC) | 有機物分解比例 (DOC <sub>f</sub> ) | 處置 DOC 量 | 累積 DOC 量 | 分解 DOC 量 | 反應常數 (K) | 甲烷生成比例 (F) | 甲烷回收量 (R <sub>i</sub> ) | 氧化係數 (OX) | 甲烷排放量               |
|------|---------|--------------|--------------|-----------------------------|----------|----------|----------|----------|------------|-------------------------|-----------|---------------------|
|      | 千公噸     | 比率           | 比率           | 比率                          | 千公噸      | 千公噸      | 千公噸      | 比率       | 比率         | ktCO <sub>2</sub> e     | 比率        | ktCO <sub>2</sub> e |
| 1990 | 2,674.4 | 0.5          | 15.88        | 0.562                       | 119.3    | 830.2    | 103.4    | 0.135    | 0.500      | NO                      | 0.0       | 1,931               |
| 1991 | 2,881.3 | 0.5          | 13.51        | 0.581                       | 113.2    | 838.5    | 104.9    | 0.138    | 0.500      | NO                      | 0.0       | 1,959               |
| 1992 | 2,650.5 | 0.5          | 16.50        | 0.603                       | 131.9    | 862.3    | 108.1    | 0.148    | 0.500      | NO                      | 0.0       | 2,018               |
| 1993 | 2,877.5 | 0.5          | 17.04        | 0.594                       | 145.6    | 889.5    | 118.4    | 0.154    | 0.500      | NO                      | 0.0       | 2,211               |
| 1994 | 2,504.5 | 0.5          | 19.08        | 0.590                       | 138.0    | 900.5    | 127.0    | 0.159    | 0.500      | NO                      | 0.0       | 2,370               |
| 1995 | 3,037.6 | 0.5          | 18.60        | 0.576                       | 162.9    | 931.0    | 132.3    | 0.159    | 0.500      | NO                      | 0.0       | 2,470               |
| 1996 | 2,547.8 | 0.5          | 18.99        | 0.582                       | 140.6    | 934.4    | 137.2    | 0.161    | 0.500      | NO                      | 0.0       | 2,561               |
| 1997 | 2,059.5 | 0.5          | 20.44        | 0.592                       | 115.0    | 910.7    | 138.7    | 0.164    | 0.500      | NO                      | 0.0       | 2,590               |
| 1998 | 1,541.4 | 0.5          | 18.47        | 0.576                       | 81.9     | 854.5    | 138.1    | 0.165    | 0.500      | NO                      | 0.0       | 2,577               |
| 1999 | 1,178.1 | 0.5          | 18.87        | 0.579                       | 64.3     | 789.2    | 129.6    | 0.165    | 0.500      | NO                      | 0.0       | 2,420               |
| 2000 | 823.6   | 0.5          | 21.12        | 0.598                       | 43.4     | 712.4    | 120.2    | 0.168    | 0.471      | NO                      | 0.0       | 2,113               |
| 2001 | 525.1   | 0.5          | 18.24        | 0.600                       | 27.8     | 630.2    | 110.0    | 0.169    | 0.471      | NO                      | 0.0       | 1,934               |
| 2002 | 296.6   | 0.5          | 20.45        | 0.590                       | 16.0     | 548.1    | 98.1     | 0.170    | 0.471      | NO                      | 0.0       | 1,726               |
| 2003 | 141.3   | 0.5          | 18.71        | 0.592                       | 7.8      | 470.3    | 85.6     | 0.170    | 0.471      | NO                      | 0.0       | 1,506               |
| 2004 | 81.0    | 0.5          | 20.60        | 0.597                       | 4.9      | 401.6    | 73.6     | 0.171    | 0.471      | NO                      | 0.0       | 1,295               |
| 2005 | 40.3    | 0.5          | 17.98        | 0.599                       | 2.2      | 340.7    | 63.0     | 0.171    | 0.471      | NO                      | 0.0       | 1,108               |
| 2006 | 17.7    | 0.5          | 20.58        | 0.588                       | 1.1      | 288.3    | 53.5     | 0.171    | 0.471      | NO                      | 0.0       | 942                 |
| 2007 | 32.5    | 0.5          | 21.44        | 0.587                       | 2.0      | 245.0    | 45.3     | 0.171    | 0.471      | NO                      | 0.0       | 797                 |
| 2008 | 0.7     | 0.5          | 24.14        | 0.582                       | 0.1      | 206.5    | 38.6     | 0.171    | 0.471      | NO                      | 0.0       | 678                 |
| 2009 | 1.3     | 0.5          | 22.53        | 0.598                       | 0.1      | 174.0    | 32.5     | 0.171    | 0.471      | NO                      | 0.0       | 572                 |
| 2010 | 2.2     | 0.5          | 22.90        | 0.594                       | 0.1      | 146.8    | 27.4     | 0.171    | 0.471      | NO                      | 0.0       | 482                 |
| 2011 | 0.1     | 0.5          | 21.70        | 0.600                       | 0.0      | 123.7    | 23.1     | 0.171    | 0.471      | NO                      | 0.0       | 407                 |
| 2012 | 0.1     | 0.5          | 22.36        | 0.598                       | 0.0      | 104.2    | 19.5     | 0.171    | 0.471      | NO                      | 0.0       | 343                 |
| 2013 | 0.1     | 0.5          | 22.26        | 0.590                       | 0.0      | 87.8     | 16.4     | 0.171    | 0.471      | NO                      | 0.0       | 289                 |
| 2014 | 0.1     | 0.5          | 22.03        | 0.597                       | 0.0      | 74.0     | 13.8     | 0.171    | 0.471      | NO                      | 0.0       | 243                 |
| 2015 | 1.7     | 0.5          | 21.75        | 0.603                       | 0.1      | 62.4     | 11.7     | 0.171    | 0.471      | NO                      | 0.0       | 205                 |
| 2016 | 62.2    | 0.5          | 21.80        | 0.599                       | 4.1      | 56.7     | 9.8      | 0.175    | 0.471      | NO                      | 0.0       | 173                 |
| 2017 | 90.7    | 0.5          | 21.95        | 0.599                       | 6.0      | 53.5     | 9.1      | 0.180    | 0.471      | NO                      | 0.0       | 160                 |
| 2018 | 126.7   | 0.5          | 22.02        | 0.596                       | 8.3      | 53.0     | 8.8      | 0.184    | 0.471      | NO                      | 0.0       | 155                 |
| 2019 | 162.3   | 0.5          | 22.46        | 0.587                       | 10.7     | 54.8     | 8.9      | 0.187    | 0.471      | NO                      | 0.0       | 157                 |
| 2020 | 166.0   | 0.5          | 21.41        | 0.577                       | 10.3     | 55.7     | 9.4      | 0.184    | 0.471      | NO                      | 0.0       | 165                 |
| 2021 | 151.0   | 0.5          | 20.75        | 0.563                       | 8.8      | 55.1     | 9.4      | 0.181    | 0.471      | NO                      | 0.0       | 165                 |
| 2022 | 64.3    | 0.5          | 20.83        | 0.559                       | 3.7      | 49.8     | 9.1      | 0.179    | 0.471      | NO                      | 0.0       | 160                 |
| 2023 | 84.3    | 0.5          | 22.49        | 0.560                       | 5.3      | 46.9     | 8.1      | 0.176    | 0.471      | NO                      | 0.0       | 143                 |
| 2024 | 0.0     | 0.5          | 21.71        | 0.562                       | 0.0      | 39.4     | 7.6      | 0.176    | 0.471      | NO                      | 0.0       | 133                 |

備註：1. NO（未發生），代表我國該分類項目無生產或使用。  
2. 甲烷回收量、甲烷排放量單位為千公噸二氧化碳當量。  
3. 轉換係數 16/12 = 1.333。