HISTORIES OF GUIDELINE DEVELOPMENT FOR THE FOURTH EDITION

12. Chemical fact sheets

12.1 Chemical contaminants in drinking-water

Heptachlor and heptachlor epoxide

History of guideline development

The 1958 and 1963 WHO *International Standards for Drinking-water* did not refer to heptachlor and heptachlor epoxide, but the 1971 International Standards suggested that pesticide residues that may occur in community water supplies make only a minimal contribution to the total daily intake of pesticides for the population served. In the first edition of the *Guidelines for Drinking-water Quality*, published in 1984, a health-based guideline value of 0.0001 mg/l was recommended for heptachlor and heptachlor epoxide, based on the ADI recommended by JMPR. It was noted that this guideline value was less than the value that would have been calculated by applying the multistage model at a projected incremental cancer risk of 1 per 100 000 per lifetime. The 1993 Guidelines established a health-based guideline value of 0.000 03 mg/l for heptachlor, based on an ADI established by JMPR in 1991 and taking into consideration the fact that the main source of exposure seems to be food. In the third edition of the Guidelines, published in 2004, it was concluded that because heptachlor and heptachlor epoxide occur at concentrations well below those at which toxic effects are observed, it was not necessary to derive a guideline value. It was also noted that concentrations below 0.0001 mg/l were generally not achievable using conventional treatment technology. This assessment was carried forward to the fourth edition of the Guidelines, published in 2011.