

WRITTEN QUESTION E-6239/08
by Iles Braghetto (PPE-DE)
to the Commission

Subject: Hexavalent chromium pollution of aquifers

New information has been published which supports the hypothesis that hexavalent chromium is carcinogenic not only when it is inhaled but also when it is swallowed. The 'permitted' maximum concentration value for drinking water (0.05 mg per litre) cannot be regarded as 'low', and is based on a WHO standard which has been unchanged since 1958. Chromium is obtained from chromite, 18 million tonnes of which were mined worldwide in 2005, and from recycling materials to which chromium had been applied as a coating or alloy. In Italy, according to a CAREX (carcinogen exposure) study, some 130 000 workers have been exposed to CrVI. Chromium is a naturally-occurring metal which exists in various different oxidation states, the most prevalent of which are CrIII, the most stable form, and CrVI, a strong oxidant. The main difference between them is that CrIII is an essential micronutrient, while CrVI plays no biological role and is extremely toxic. It is toxic whether it is inhaled, absorbed through the skin or swallowed; it is genotoxic; and animal experiments and epidemiological studies indicate that it is carcinogenic for humans when inhaled. The epidemiological studies examined populations exposed to CrVI and chromates by inhalation, and repeatedly and consistently showed an increase in the incidence of lung tumours in people involved in the production of chromates and ferro-chromic alloys and, in more recent years, in people employed in the chromium-plating industry. The availability of information about the intensity of exposure enabled NIOSH researchers to conclude that increased incidence of tumours of the respiratory system is dose-dependent. Experimental studies on the carcinogenicity of CrVI examined absorption by inhalation and by both the intramuscular and the intratracheal route. The journal 'Epidemiologia e Prevenzione' recently published a cohort study of a small group of people employed at a chromium-plating establishment which had caused serious environmental pollution, who suffered an excessively high rate of lung tumours. Residues from the chromium-plating operations had frequently been disposed of in unsuitable and illegal ways, polluting the aquifer.

This is the situation in Tezze sul Brenta, in Vicenza Province, whose aquifer has been polluted by chromium, and also of some towns in Greece.

Does the Commission intend to take steps to review the maximum concentration value for chromium in water?

Does the Commission intend to consider whether chromium should be included in the list of priority substances for review under the Water Framework Directive, as requested by the European Parliament?