

ERRATA

To: Recipients of MR-1018/6-OSD, A Review of the Scientific Literature As It Pertains to Gulf War Illnesses, Volume 6: Oil Well Fires, by Dalia M. Spektor, 1998

From: RAND Corporation Publications Department

Date: November 2005

Re: Corrected page (p. 43, Table 3.5, Concentration of Elements Associated with PM in the Ambient Air [ng/m³])

A typographical error resulted in erroneous data in this table. The appropriate entry is as follows:

Entry for Lead (sixth row): Data entries for the columns labeled Urban and Remote are transposed. The value for Urban should be 30-96,270 and the value for Remote should be 0.007-64

We regret the inconvenience.

Table 3.5
Concentration of Elements Associated with PM in the Ambient Air
(ng/m³)^a

Elements	United States			Camp Thunderrock (August 1991)
	Urban	Rural	Remote	
Arsenic	2-2,300	1-28	0.007-1.9	4.25
Cadmium	0.2-7,000	0.4-1000	0.003-1.1	4.30
Chromium III	2.2-124	1.1-44	0.005-11.2	44.0
Iron	130-13,800	55-14,530	0.62-4160	8390
Nickel	1-328	0.6-78	0.01-60	136.0 ^b
Lead	30-96,270	2-1700	0.007-64	587.0
Vanadium	0.4-1460	2.7-97	0.001-14	38.8
Zinc	15-8328	11-403	0.03-460	107.0

SOURCE: USAEHA, 1994.

^ang/m³ = 0.001 µg/m³.

^bMean concentrations in the Gulf region were in the range of rural areas in the U.S. except for nickel, which was at the urban level.

symptoms include severe irritation of the nasal mucosa, larynx, and bronchia (Holmqvist, 1951; Pinto, 1953). These irritations may lead to hoarseness, laryngitis, bronchitis, and sometimes perforation of the nasal septa (Pinto, 1953). Increased peripheral vasospastic and Raynaud's syndrome were found in Swedish arsenic workers (Lagerkvist, 1986).

Beryllium

As the production of missiles, nuclear devices, and electronics grew and modern industrial technologies emerged, the risk of occupational exposure to beryllium became widespread. The environmental burden also increased as a result of emissions from plants producing and processing beryllium or its alloys and compounds. The major exposure to beryllium is through inhalation, which induces specific sensitization and nonspecific effects leading to chronic beryllium disease (CBD). CBD is an immunologically mediated granulomatous and fibrotic pulmonary disorder with increased numbers of lymphocytes in bronchoalveolar lavage fluid similar to that found in hypersensitive pneumoconitis. It has been hypothesized that epithelial injury and permeability changes occur early in CBD and are indicative of disease severity (Inoue, 1997). Associated symptoms are dyspnea on exertion, cough, chest pain, weight loss, and general weakness.