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Disease Occurrence -- Worldwide

(DI-1812-325-03, 4 April 2003)

General

(b)(3):10 USC 424;(b)(3):50 USC 3024(i)

(U) The DOWW, published under the auspices of the Department of Defense Intelligence Production Program (DoDIPP), reflects the Defense Intelligence Production Community position. The DIA's AFMIC is the designated DoDIPP producer for this subject.

(U) The DOWW provides timely alerts and updates on militarily significant infectious diseases.

(b)(3):10 USC 424

Iraq

(U) **Forecast:** Inhalation of Smoke from Oil Fires Unlikely to Result in Severe Health Effects

(U) **Health Effects:** Skin, eye, nose, and throat irritation; coughing; shortness of breath; and aggravation of sinus and asthma conditions.

(U) **Risk Period:** Ongoing since March 2003.

(U) **Location:** Rumaila, Baghdad, Kirkuk, and Az Zubayr

~~(S)~~ Summary:

(b)(1);1.4 (c)

~~(S)~~

(b)(1);1.4 (c)

(U) **Assessment:** The combustion products released from the burning of crude oil include carbon dioxide (CO₂), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen oxides (NO_x), ozone (O₃), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), inorganic acids, metals (nickel, vanadium, cadmium, chromium, lead, and others) and particulate matter in the form of soot. The concentrations of these contaminants in the resulting smoke plume may vary, depending on the existing meteorological conditions, chemical composition of the burning crude oil, number and distribution of fires, and combustion efficiency.

(U) Air quality measurements recorded by US and international government agencies during the 1991 Kuwaiti oil fires found that the concentrations of VOCs, PAHs, heavy metals, CO₂, CO, nitrogen dioxide (NO₂), and H₂S were within established US regulatory limits. Particulate matter was the only air contaminant found to have exceeded US air quality standards. Smoke from the oil wells contributed approximately 20 percent to the total level of particulate matter, with the bulk of the remainder coming from wind-blown dust and sand.

(U) Exposure to the contaminants listed above may result in skin irritation, eye, nose, and throat irritation, coughing, shortness of breath, and aggravation of sinus and asthma conditions. The smoke from Iraqi oil fires is likely to present a low health risk for most personnel; however, the health risk may be elevated for personnel in close proximity to burning oil (within 100-200 meters). Continuous, prolonged exposures to very dense smoke within 100 meters of the source could be life threatening. In addition, pooled oil presents a physical hazard to US personnel in the vicinity due to the risk of fire or explosion.

(U) **Potential Risk to US Forces:** Adverse health effects to US personnel resulting from exposure to smoke from oil fires are likely to be minimal, provided personnel are able to maintain a safe distance of at least 100 to 200 meters. Long-term health effects from oil fire smoke exposures are unlikely.

Appendix

(U) **Request for feedback:** This Center has an ongoing effort to upgrade its worldwide epidemiological intelligence reporting and requests that any feedback be forwarded to Defense Intelligence Agency, Building 6000, Washington, DC 203401-5100, ATTN: AFMIC, by electronic message to DIRAFMIC FT DETRICK MD, or through the comments/feedback link on the AFMIC home page on Intelink.

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(b)(2)

Disease Occurrence -- Worldwide

(b)(2), 4 April 2003)

General

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(U) The DOWW provides timely alerts and updates on militarily significant infectious diseases.

(U) This product is available on SIPRNET at (b)(2), and on Intelink at (b)(2).

Iraq

(U) **Forecast:** Inhalation of Smoke from Oil Fires Unlikely to Result in Severe Health Effects

(U) **Health Effects:** Skin, eye, nose, and throat irritation; coughing; shortness of breath; and aggravation of sinus and asthma conditions.

(U) **Risk Period:** Ongoing since March 2003.

(U) **Location:** Rumaila, Baghdad, Kirkuk, and Az Zubayr

Sec. 1.4(a), Sec. 1.4(c)

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(b)(2)

polycyclic aromatic hydrocarbons (PAHs), inorganic acids, metals (nickel, vanadium, cadmium, chromium, lead, and others) and particulate matter in the form of soot. The concentrations of these contaminants in the resulting smoke plume may vary, depending on the existing meteorological conditions, chemical composition of the burning crude oil, number and distribution of fires, and combustion efficiency.

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