

Environmental Exposure Report

http://www.gulflink.osd.mil/pest_final/index.html

Environmental Exposure Report Environmental Exposure Report

Pesticides
Final Report
April 17, 2003

Many veterans of the Gulf War have expressed concern that their unexplained illnesses may have resulted from their experiences in that war. In response to veterans' concerns, the Department of Defense established a task force in June 1995 to investigate those incidents and circumstances relating to possible causes. The Special Assistant to the Deputy Secretary of Defense for Gulf War Illnesses took over responsibility for these investigations on November 12, 1996. Effective April 5, 2001, the Special Assistant to the Under Secretary of Defense (Personnel and Readiness) for Gulf War Illnesses, Medical Readiness, and Military Deployments assumed continued responsibility for Gulf War issues. Environmental Exposure Reports are reports of what the Department of Defense knows today about certain events that took place during Operations Desert Shield and Desert Storm of 1990 and 1991. This environmental exposure report focuses on the use of pesticides by US military personnel and the resulting exposures to these compounds. The Department published the initial report on January 12, 2001. This is a final report because no new information has been received to change the findings and assessments of the previous report. As always, if you believe you have information that may change this environmental exposure report, please call:
1-800-497-6261

William Winkenwerder Jr., MD
Assistant Secretary of Defense (Health Affairs)
Special Assistant to the Under Secretary of Defense (Personnel and Readiness)
for Gulf War Illnesses, Medical Readiness, and Military Deployments
US Department of Defense
2001212-0000036 Ver. 2.0

TABLE OF CONTENTS

I. INTRODUCTION

II. SUMMARY

- A. Why We Investigated Pesticides
- B. Exposures
- C. Investigation
- D. Conclusions

III. BACKGROUND

- A. Importance of Preventive Medicine
- B. Expected Threat from Pest-Borne Diseases
- C. Preventive Medicine and Pest Management Organizations and Programs in the Gulf War
 - 1. Army
 - 2. Navy and Marine Corps
 - 3. Air Force
- D. Logistics
- E. Concerns About Pesticide Use in the Gulf War
- F. Institute of Medicine Literature Review

IV. INVESTIGATION

- A. Investigation Process
- B. Policy, Doctrine and Guidance
- C. Pesticides - Identification, Use, Exposures, and Potential Health Effects
 - 1. Pesticides of Potential Concern
 - 2. Pesticide Use in the Gulf War

Environmental Exposure Report

3. General Aspects of Pesticide Exposure
4. Potential Health Effects
- D. Health Risk Assessment Methodology and Exposure Scenarios
 1. Introduction
 2. What the HRA Tells Us
 3. What the HRA Does Not Tells Us
 4. Data Collection
 5. Exposure Scenarios
 6. Toxicity of the POPCs/Levels of Concern
 7. General Military Population Exposures
 8. Pesticide Applicators Exposures
 9. Possible Cumulative Effects
- E. Findings
 1. Review of Gulf War Records, Documents and Related Materials
 2. Veterans' Interviews
 3. RAND Literature Review
 4. RAND Survey
 5. Health Risk Assessment Findings
- V. CONCLUSIONS AND LESSONS LEARNED
 - A. Conclusions Related to Potential Health Outcomes
 1. Pest-borne Diseases
 2. Pesticide Overexposures
 3. Potential for Pesticides to Cause Long-term Symptoms
 4. Potential for Pesticides to Contribute to Veterans' Illnesses
 5. Areas for Further Research
 - B. Lessons Learned
 1. Host Nation Application
 2. Delousing
 3. Training and Experience
 4. Supply Distribution and Local Purchase
 5. Equipment and Facilities
 6. Record Keeping
 7. Occupational Medical surveillance
 8. Communications
 9. Command Support
 10. Use of Dichlorvos Pest Strips

TAB A - Acronyms, Abbreviations, and Glossary

TAB B - Bibliography

TAB C - Methodology

TAB D - Health Risk Assessment

TAB E - Pesticide Guidance, Reference Information, and Research

TAB F - Pest Management and Operations

TAB G - Fly Baits

TAB H - Delousing Operations

TAB I - Logistics

TAB J - Human Benchmarks

TAB K - Changes to the Interim Report

END NOTES

| [First Page](#) | [Prev Page](#) | [Next Page](#) |