

2



DTIC
ELECTE
APR 29 1992
S C D

AD-A249 143



U.S. ARMY BIOMEDICAL RESEARCH
AND DEVELOPMENT LABORATORY

BIBLIOGRAPHY
FY91 - 80 (REVERSE ORDER)

92-09733

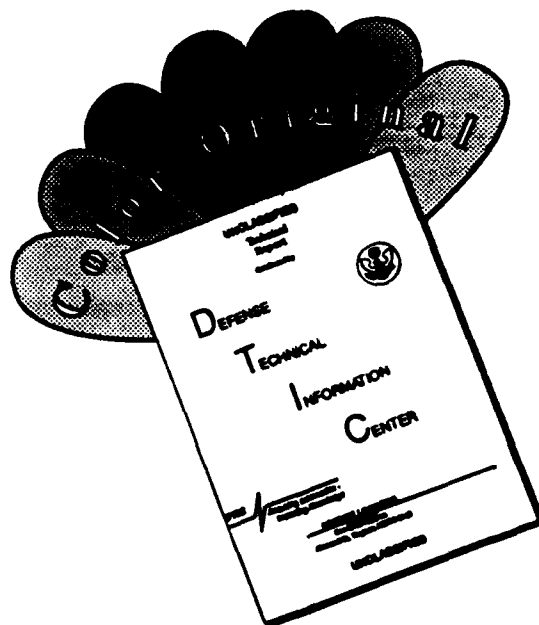


EXEMPTION STATEMENT A
Approved for public release;
Distribution Unlimited

APPENDIX

92 4 15 070

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF COLOR PAGES WHICH DO NOT REPRODUCE LEGIBLY ON BLACK AND WHITE MICROFICHE.

U.S. Army Biomedical Research and Development Laboratory Bibliography
FY91-FY80 (Reverse Order)

FY91

PUBLICATIONS: Office of the Commander**In-House Publications:****Technical Report**

Weyandt, Timothy B. 1991. Recommended decontamination limit standards for disposal certification for selected chemical agents. Technical Report No. 9108. AD A235554.

PUBLICATIONS: Field Medical Materiel Development Division**Open Literature Publications:**

Burrows, W.D., and J.H. Nelson. 1990. IV Fluidmaker: Preparation of sterile water for injection in a field setting. In Proceedings of the Army science conference, 201-11. Research Triangle Park, NC: U.S. Army Research Office.

Gupta, R.K., Z.A. Mehr, D.W. Korte and L.C. Rutledge. 1990. Mutagenic potential of permethrin in the Drosophila melanogaster sex-linked recessive lethal test. J. Econ. Entomol. 83:721-24.

Gupta, R.K., and L.C. Rutledge. 1991. Laboratory evaluation of controlled-release repellent formulations on human volunteers under three climatic regimens. J. Am. Mosq. Cont. Assoc. 7:490-93.

Mehr, Z.A., L.C. Rutledge, M.D. Buescher, R.K. Gupta, and M.M. Zakaria. 1990. Attraction of mosquitoes to Diethyl methylbenzamide Ethyl hexanediol. J. Am. Mosq. Cont. Assoc. 6:469-76.

Perich, M.J., L.R. Boobar, J.D. Stivers, and L.A. Rivera. 1990. Field evaluation of four biorational larvicide formulations against Anopheles albimanus in Honduras. Med. Vet. Entomol. 4:393-96.

Perich, M.J., L.R. Boobar, J.C. Stivers, and L.A. Rivera. 1990. Evaluation of diverse formulations of B.t.i. against Anopheles albimanus in Honduras. Israel J. Entomol. 23:45-9.

Perich, M.J., P.M. Clair, and L.R. Boobar. 1990. Integrated use of planaria (Dugesia dorotocephala) and Bacillus thuringiensis var. israelensis against Aedes taeniorhynchus: Laboratory bioassay. J. Am. Mosq. Control Assoc. 6:667-71.

Sukumar, K., M.J. Perich, and L.R. Boobar. 1991. Botanical derivatives used in mosquito control: A review. J. Am. Mosq. Control Assoc. 7:210-37.

Distribution/

Availability Code

Dist

Avail and/or

Special

A-1

 3
 3

In-House Publications:

Technical Reports

Dubill, P.M., and L.R. Strzelecki. 1991. Patient care utility module for DEPMEDS hospitals. Technical Report No. 9113. AD A238150.

Kingsley, C.P., K.W. Olsen, J.H. Nelson, and D.L. Danley. 1991. Evaluation of agent-specific and universal PACTM drawover anesthesia devices using a porcine model. Technical Report No. 9105. AD A235438.

Pennington, G.M., M.H. Sumko, A.L. Bucknell, J.H. Nelson, and D.L. Danley. 1991. Pulsed, non-thermal, high frequency electromagnetic energy (diapulse) in the treatment of grades I and II ankle sprains. Technical Report No. 9121. AD A242359.

Rogers, T.L., W.D. Burrows, and J.H. Nelson. 1991. IV fluidmaker II. Testing and evaluation of 6 L/hr prototype. Technical Report No. 9008. AD A235816.

Memorandum Reports

Gula, P.R., G.E. Toms, and J.W. Hodge. 1990. Tension testing of EPDM elastic straps for casualty litter P/N R7-9BNH. Memorandum Report No. 19-90.

Hodge, J.W., and G.E. Toms. 1990. Draw-over vaporizer performance in elevated temperatures. Memorandum Report No. 20-90.

Hodge, J.W., and G.E. Toms. 1990. Water recovery unit storage test. Memorandum Report No. 21-90.

Hodge, J.W., and G.E. Toms. 1991. SOF sterilizer, 1st article test. Memorandum Report No. 1-91.

Hodge, J.W., and G.E. Toms. 1991. Sterilizer, surgical instruments and dressings (modified). Memorandum Report No. 2-91.

Gula, P.R., and G.E. Toms. 1991. Powered ventilators, environmental testing. Memorandum Report No. 3-91.

Gula, P.R., and G.E. Toms. 1991. Low temperature testing of three vacuum pump air sampling devices. Memorandum Report No. 4-91.

Hodge, J.W., and G.E. Toms. 1991. SOF sterilizer, modified, performance test. Memorandum Report No. 5-91.

Hodge, J.W. 1991. CANA autoinjectors; reliability test. Memorandum Report No. 6-91.

Gula, P.R., and J.W. Hodge. 1991. Evaluation of the RD-7 mini shower. Memorandum Report No. 7-91.

Hodge, J.W. 1991. Patient wrap, window seams, peel test. Memorandum Report No. 8-91.

Hodge, J.W., and G.E. Toms. 1991. EPC SN 91-01, first article test. Memorandum Report No. 9-91.

Hodge, J.W., and G.E. Toms. 1991. Sterilizer surgical instruments and dressings, FATE, FAT. Memorandum Report No. 10-91.

Hodge, J.W., and G.E. Toms. 1991. EPC, SN 91-01, first article test (supplemental test report). Memorandum Report No. 11-91.

Gula, P.R., and G.E. Toms. 1991. Pro-Mist 15MP electric aerosol generator technical test report I/II. Memorandum Report No. 12-91.

Gula, P.R., and G.E. Toms. 1991. Saran mesh, chemical warfare field litter. Memorandum Report No. 13-91.

Hodge, J.W., and G.E. Toms. 1991. Xi scan 1000 test report. Memorandum Report No. 14-91.

Hodge, J.W., and G.E. Toms. 1991. Environmental protection container verification test. Memorandum Report No. 15-91.

Extramural Study Reports/Publications:

Brimhall, O.D. 1991. Development of multipurpose centrifuge. Final report, phase I, DAMD17-91-C-1020. Salt Lake City, UT: Technical Research Associates.

Burke, J.W. 1991. Mass human delousing spray gun. Final report, DAMD17-91-C-1084. Clinton, MD: Cardinal Scientific Inc.

Faklis, D. 1991. Diffractive multi-color phoroptor based on laser speckle. Final report, phase I, DAMD17-91-C-1018. Rochester, NY: Rochester Photonics Corporation.

Gondhalekar, V. 1991. Magnetically suspended multipurpose centrifuge. Final report, phase I, DAMD17-91-C-1019. Cambridge, MA: Satcon Technology Corporation.

Sandler, S. 1991. Lateral wave locator for radiotransparent foreign bodies. Final report, phase I, DAMD17-91-C-1016. Newton Center, MA: Geo-Center, Incorporated.

PUBLICATIONS: Health Effects Research Division

Open Literature Publications:

Bantle, J.A., J.N. Dumont, R.A. Finch, and G. Linder. 1991. Atlas of abnormalities: A guide for the performance of FETAX. Stillwater, OK: Oklahoma State University Press.

Burrows, E.P. 1991. Mass spectral fragmentation pathways of N-Acetylnitramines: 1-Acetylhexahydro-3,5-dinitro-1,3,5-triazine and 1-Acetyloctahydro-3,5,7-trinitro-1,3,5,7-tetrazocine. Org. Mass Spectrom. 26:105-08.

Burrows, W.D., and E.E. Brueggemann. 1991. Physicochemical removal of toxic nitramines from wastewater. In Proceedings of the 24th mid-Atlantic industrial waste conference, 188-97. Lancaster, PA: Technomic Publishing Company, Inc., Lancaster, PA.

Burrows, W.D., M.O. Schmidt, R.M. Carnevale, and S.A. Schaub. 1991. Nonpotable reuse: Development of water quality criteria for shower water recycle. In Proceedings of the 1991 specialty conference, environmental engineering, 224-29. American Society of Civil Engineers, New York, NY.

Burrows, W.D., M.O. Schmidt, R.M. Carnevale, and S.A. Schaub. 1991. Nonpotable reuse: Development of health criteria and technologies for shower water recycle. Water Science and Technology 24(9):81-8.

Major, M.A., K.A. Bostian, and D.H. Rosenblatt. 1991. The octanol/water partition coefficient of methylmercuric hydroxide in pure water and salt solutions. Environ. Tox. Chem. 10:5-8.

McCarthy, J.F., H. Gardner, J.J. Wolfe, and L.R. Shugart. 1991. DNA alterations and enzyme activities in Japanese medaka (Oryzias latipes) exposed to diethylnitrosamine. Neurosci. Biobehavior. Rev. 15:99-102.

Rosenblatt, D.H., E.P. Burrows, W.R. Mitchell, and D.L. Parmer. 1991. Explosives and related compounds. In The handbook of environmental chemistry, vol 3, part G, Anthropogenic compounds, 195-234, ed. O. Hutzinger. Berlin, Heidelberg, Germany: Springer-Verlag.

Terra, J.A. 1991. Precautions for N,N-Diethyl-m-Toluamide (DEET) use in Southwest Asia. PVNTMED Information Letter, Health Services Command, San Antonio, TX, July.

In-House Publications:

Technical Reports

Bausum, H.T., W.R. Mitchell, and M.A. Major. 1991. Biodegradation of 2,4- and 2,6-Dinitrotoluene by freshwater microorganisms. Technical Report No. 9103. AD A239098.

Brueggemann, E.E., and A.B. Rosencrance. 1989. Determination of dimethyl sulfoxide (DMSO), ethanol (ETOH), formamide (F), and glycerol/formal (GF) by high performance liquid chromatography (HPLC). Technical Report No. 8903. AD A231385.

Brueggemann, E.E., A.B. Rosencrance, and W.E. Dennis. 1991. Determination of selected colored smokes on glass fiber discs by high performance liquid chromatography (HPLC). Technical Report No. 9112. AD A238251.

Burrows, E.P. 1991. Mass spectrometric characterization of N,N'-bis-(2,4,6-Trichlorophenyl)urea. Technical Report No. 9114. AD A239959.

Burrows, W.D., D.W. Nelson, and S.A. Schaub. 1990. Shower water recycle II. Health considerations. Technical Report No. 8905. AD A239028.

Howard, G.G. 1991. Determination of halogenated acetic acids by ion chromatography. Technical Report No. 9109. AD A239960.

Major, M.A., K.A. Bostian, and D.H. Rosenblatt. 1991. The effect of changes in acidity and salinity on the octanol water partition coefficient of monomethylmercuric species present in aquatic environments at high pE. Technical Report No. 9110. AD A239705.

Major, M.A., R.T. Checkai, C.T. Phillips, R.O. Nwanguma, and R.S. Wentzel. 1991. A new method for determining residues generated during munition demilitarization activities: Analysis of environmental soil and water samples. Technical Report No. 9111. AD A239543.

Palmer, W.G. 1990. Exposure standard for fog oil. Technical Report No. 9010. AD A231714.

Preston, D.R., and S.A. Schaub. 1991. Technology assessment and strategy for development of a rapid field water microbiology test kit. Technical Report No. 9106. AD A243413.

Schmidt, M.O., R.M. Carnevale, L.A. Berneski, and W.D. Burrows. 1989. Shower water recycle III. Microfiltration studies. Technical Report No. 8906. AD A231808.

Small, M.J. 1991. The pollution hazard assessment system version 20: Documentation and users manual. Technical Report No. 9104. AD A236439.

Extramural Study Reports/Publications:

Anderson, R.S. 1990. Immunomodulation of exposure of shellfish and finfish to xenobiotics: Implications for altered resistance/susceptibility to disease. In Abstracts of the EPA Gulf Breeze symposium on marine and estuarine disease research.

Anderson, R.S., and L.L. Brubacher. 1991. Reduced production of reactive oxygen intermediates by pronephros phagocytes. In Proceedings of the 6th international symposium on responses of marine organisms to pollutants, 2. Woods Hole, MA

Aranyi, C. 1991. Inhalation toxicity of single materials and mixtures: Phase II - Four-week inhalation toxicity study of a solid particulate aerosol in F344/N rats. Contract Number DAMD17-89-C-9043. Chicago, IL: IIT Research Institute. AD A239009.

Aranyi, C. 1991. Inhalation toxicity of single materials and mixtures: Phase III - Four-week inhalation toxicity study with aerosol mixtures of fog oil and graphite particles in F344/N rats. Contract Number DAMD17-89-C-9043. Chicago, IL: IIT Research Institute.

Bakke, J.P. 1990. LP1845 liquid gun propellant dermal toxicity studies: Evaluation of the potential of LP1846 liquid gun propellant to induce unscheduled DNA synthesis in the in vitro hepatocyte DNA repair assay. Final report, Project Order Number 89M4505. Menlo Park, CA: SRI International. AD A219648.

Baldwin, L.A., E.J. Calabrese, P.T. Kostecky, and J.-H. Yang. 1990. Isolation of peroxisomal enoyl-CoA hydratase in rainbow trout and immunochemical identification with the bifunctional enzyme. Fish Physiology and Biochemistry 8(4):347-51.

Bantle, J.A. 1991. Further development and validation of the Frog Embryo Teratogenesis Assay-Xenopus (FETAX). Contract Number DAMD17-88-C-8031. Stillwater, OK: Oklahoma State University.

Bantle, J.A., D.J. Fort, J.R. Rayburn, D.J. DeYoung, and S.J. Bush. 1990. Further validation of FETAX: Evaluation of the developmental toxicity of five known mammalian teratogens and non-teratogens. Drug & Chemical Toxicity 13(4):267-82.

Battalora, M.St.J., W.E. Hawkins, W.W. Walker, and R.M. Overstreet. 1991. Occurrence of thymic lymphoma in carcinogenesis bioassay specimens of the Japanese medaka (Oryzias latipes). Cancer Research 50(Suppl):5675-78.

Battalora, M.St.J., W.E. Hawkins, W.W. Walker, and R.M. Overstreet. 1990. Lymphoma in the Japanese medaka (Oryzias latipes). Journal of the Mississippi Academy of Science 35(Suppl):81.

Bhattacharyya, M.H., D.P. Peterson, B.G. Oltman, J.H. Stebbings, Z. Liu, and D. Parmer. 1991. Lead exposures and biological responses among U.S. Army artillerymen. The Toxicologist 11(1):81.

Blachman, D.C., G.D. Cunningham, K.E. Garin, and K.D. Suing. 1991. LP1846 liquid gun propellant dermal toxicity studies. An assessment of the clastogenic potential of LP1846 utilizing the mammalian cell cytogenetics assay with Chinese hamster ovary (CHO) cells. Final report, Project Order Number 89M4505. Menlo Park, CA: SRI International.

Brown, D.F., W.E. Dunn, and A.J. Policastro. 1990. Assessment and computerized modeling of the environmental deposition of military smokes: analysis of meteorological data from the Amadeus smoke dispersion experiments. Project Order Number 90PP0819. Argonne, IL: Argonne National Laboratory. AD A237980.

Bucci, T.J., R.M. Parker, J.A. Crowell, J.D. Truman, and P.A. Gosnell. 1991. Toxicity studies on agents GB and GD (Phase II). 90-Day subchronic study of GB (Sarin, Type I) in CD-rats. Project Order Number 85PP5868. Jefferson, AR: National Center for Toxicological Research.

Bucci, T.J., R.M. Parker, J.A. Crowell, J.D. Thurman, and P.A. Gosnell. 1991. Toxicity studies on agents GB and GD (Phase II). 90-Day subchronic study of GB (Sarin, Type II). Project Order Number 85PP5868. Jefferson, AR: National Center for Toxicological Research.

Bunton, T.E. 1990. Development of an aquatic bioassay for carcinogenicity and toxicity using the medaka (Oryzias latipes) as a model. Contract Number DAMD17-18-C-8029. Baltimore, MD: Johns Hopkins University.

Bunton, T.E. 1991. Ultrastructure of hepatic hemangiopericytoma in the medaka (Oryzias latipes). Exp. and Molecular Pathology 54:87-98.

Cataldo, D.A., S.D. Harvey, and R.J. Fellows. 1990. An evaluation of the environmental fate and behaviors of munitions material (TNT, RDX) in soil and plant systems. Environmental fate and behavior of RDX. Final report, Project Order Number 88PP8853. Richland, WA: Battelle Pacific Northwest Laboratory.

Chang, Y-J., C. Mathews, K. Mangold, K. Marien, J. Hendricks, and G. Bailey. 1991. Analysis of ras gene mutations in rainbow trout liver tumors initiated by aflatoxin B1. Molecular Carcinogenesis 4:112-19.

Checkai, R.T., M.A. Major, C.T. Phillips, R.O. Nwanguma, and R.S. Wentzel. 1990. Migration of munition residues in sandy loam soil. In Global environmental issues: Challenge for the 90's, 11. Society of Environmental Toxicology and Chemistry, Washington, DC.

Checkai, R.T., M.A. Major, C.T. Phillips, R.O. Nwanguma, and R.S. Wentzel. 1990. Fate of munitions residues in sandy loam soil, 35. In Agron. Abstr.

Cochrane, B.J., R.B. Irby, and T.W. Snell. 1991. Effects of copper and tributyltin on stress protein abundance in the rotifer Brachionus plicatilis. Comp. Biochem. Physiol. 98:385-90.

Costa, D.L., R.H. Jaskot, M. Higuchi, and D. Doerfler. 1990. Toxicity of an anthraquinone violet dye mixture following inhalation exposure and gavage. In Proceedings of smoke/obscurants symposium XIV, vol. II, 617-29. CRDEC-CR-092, U.S. Army Chemical Research, Development and Engineering Center, Aberdeen Proving Ground, MD.

Desai, L.S., A. Austin, G.B. FitzGerald, H.S. Lilja, and G. Reddy. 1991. Acute toxicity evaluation of nitroaromatic compounds. Toxicologist 11:145.

DeYoung, D.J., J.A. Bantle, and D.J. Fort. 1991. Assessment of the developmental toxicity of ascorbic acid, sodium selenate, coumarin, serotonin, and 13-cis retinoic acid using FETAX. Drug and Chemical Toxicology 14:127-41.

Donohue, M., L.A. Baldwin, D.A. Leonard, and E.J. Calabrese. 1991. The use of primary cultures of rainbow trout hepatocytes to evaluate peroxisome proliferation potential of hypolipidemic drugs. Proc. Am. Assoc. Cancer Res. 32:86.

FitzGerald, G.B., A. Austin, and N. DiGuilio. 1991. Acute toxicity evaluation of nitroaromatic compounds. Contract Number DAMD17-89-C-9221. Woburn, MA: Toxikon Corporation.

Fort, D.J., and J.A. Bantle. 1990. Use of frog embryo teratogenesis assay-Xenopus and an exogenous metabolic activation system to evaluate the developmental toxicity of diphenylhydantoin. Fund. Appl. Toxicol. 14:720-33.

Fort, D.J., and J.A. Bantle. 1990. Analysis of the developmental toxicity of isoniazid using various exogenous metabolic activation systems with frog embryo teratogenesis assay-Xenopus (FETAX). Teratogen. Carcinog. Mutagen 10:463-76.

Fort, D.J., J.R. Rayburn, D.J. DeYoung, and J.A. Bantle. 1991. Developmental toxicity testing with frog embryo teratogenesis assay-Xenopus (FETAX): Efficacy of Aroclor 1254-induced exogenous metabolic activation system. Drug and Chemical Toxicology 14(1-2):143-60.

Gordon, L., W.R. Hartley, and W.C. Roberts. 1990. Health Advisory on white phosphorus. Project Order Number 90PP8016. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.

Gordon, L., W.R. Hartley, and W.C. Roberts. 1991. Health Advisory on hexachloroethane. Project Order 90PP8016. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.

Haag, W.R., R. Spanggord, T. Mill, R.T. Podoll, T.-W. Chou, D.S. Tse, and J.C. Harper. 1990. Aquatic environmental fate of nitroguanidine. Environ. Toxicol. Chem. 9:1359-67.

Hajjar, N.P., M.E. Brower, P.A. Turck, C.L. Kruger, W.R. Hartley, and W.E. Roberts. 1991. Health Advisory for 1,3-Dinitrobenzene. Project Order Number 90PP8016. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.

Hall, L.C., J.I. Daniels, R. Aly, and H.I. Maibach. 1991. Recommendation of showering frequencies for preventing performance-degrading nonsystemic microbial skin infections in military personnel in the field. Project Order Number 90PP0826. Livermore, CA: Lawrence Livermore National Laboratory and University of California.

Harvey, S.D., R.J. Fellows, D.A. Cataldo, and R.M. Bean. 1990. Analysis of 2,4,6-trinitrotoluene and its transformation products in soils and plant tissues by high performance liquid chromatography. J. Chromatog. 518:316-74.

Hawkins, W.E., J.W. Fournie, M.St.J. Battalora, and W.W. Walker. 1991. Spontaneous acinar cell carcinoma of the exocrine pancreas in Japanese medaka (Oryzias latipes) from carcinogenesis bioassays. J. of Aquatic Animal Health 3:213-20.

Hawkins, W.E., W.W. Walker, and R.M. Overstreet. 1990. Carcinogenic effects of some polycyclic aromatic hydrocarbons on the Japanese medaka and guppy in waterborne exposures. Science of the Total Environment 94:155-67.

Higuchi, M.A., and D.W. Davies. 1990. Inhalation toxicology of red and violet mixtures: Chamber concentration and particle size distribution report. Project Order Number 87PP7808. Research Triangle Park, NC: Health Effects Research Laboratory, U.S. Environmental Protection Agency. AD A237664.

Levy, R., R.E. Hicks, K. Hicks, and H. Gold. 1990. Spiral wound ion exchange unit for the production of sterile water for injection. Final report, Contract Number DAMD17-90-C-0085. Waltham, MA: Foster-Miller, Inc.

Malins, D.C., and R. Haimanot. 1991. Major alterations in the nucleotide structure of DNA in cancer of the female breast. Cancer Research 51:5430-32.

Malins, D.C., and R. Haimanot. 1991. The etiology of cancer: Hydroxyl radical-induced DNA lesions in histologically normal livers of fish from a population with liver tumors. Aquatic Toxicol. 20:123-30.

Malins, D.C., and R. Haimanot. 1990. 4,6-Diamino-5-formamidopyrimidine, 8-hydroxyguanine, and 8-hydroxyadenine in DNA from neoplastic liver of English sole exposed to carcinogens. Biochem. Biophys. Res. Commun. 173:614-19.

Malins, D.C., G.K. Ostrander, R. Haimanot, and P. Williams. 1990. A novel DNA lesion in neoplastic livers of feral fish: 2,6-diamino-4-hydroxy-5-formamidopyrimidine. Carcinogenesis 11:145-47.

Mangold, K., Y-J. Chang, C. Mathews, K. Marien, J. Hendricks, and G. Bailey. 1991. Expression of ras genes in rainbow trout liver. Molecular Carcinogenesis 4:97-102.

McCarthy, J.F., H. Gardner, M.J. Wolfe, and L.R. Shugart. 1991. DNA alterations and enzyme activities in Japanese medaka (Oryzias latipes) exposed to diethylnitrosamine. Neurosci. and Biobehav. Rev. 15:99-102.

McGehee, D.C. 1990. Small ion exchange water purifier. Final report, Contract Number DAMD17-90-C-0088. Elk Grove, CA: Ecotech.

Moore, M.M., L. Claxton, V. Houk, G.M. Nelson, and K. Harrington-Brock. 1989. Toxicity of red and violet dyes in M18 grenades: Mutagenic screening of three dyes for marker grenades in the Salmonella reversion assay and the L5178/TK+/-mouse lymphoma assay. Final report, Project Order Number 87PP7808. Research Triangle Park, NC: U.S. Environmental Protection Agency.

Nunez, O., J.D. Hendricks, and J.R. Duimstra. 1991. Ultra-structure of hepatocellular neoplasms in aflatoxin B1 (AFB1)-initiated rainbow trout (Oncorhynchus mykiss). Toxicologic Pathology 19:11-23.

Nunez, O., J.D. Hendricks, and A.T. Fong. 1990. Inter-relationships among aflatoxin B1 (AFB1) metabolism, DNA-binding, cytotoxicity, and hepatocarcinogenesis in rainbow trout Oncorhynchus mykiss. Diseases of Aquatic Organisms 9:15-23.

Parker, R.M., J.J. Bucci, K.H. Denny, and J.C. Dacre. 1991. Negative dominant lethal study of Lewisite in CD rats. Project Order Number 88PP8860. The Toxicologist 11:247 (Abstract 935).

Peters, G.T., D.T. Burton, R.L. Paulson, and S.D. Turley. 1991. The acute and chronic toxicity of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) to three freshwater invertebrates. Environ. Toxicol. Chem. 10:1073-81.

Pratt, J.R. 1990. Aquatic ecosystem responses to stress. In Aquatic toxicology and risk assessment, 16-26, eds. W.G. Landis and W.H. van der Schalie. American Society for Testing and Materials, Philadelphia, PA.

Pratt, J.R., and N.J. Bowers. 1990. A microcosm method for evaluating ecological effects of chemicals and mixtures. Toxicity Assessment 5:189-205.

Pratt, J.R., and N.J. Bowers. 1990. Effects of selenium on microbial communities in laboratory microcosms and outdoor streams. Toxicity Assessment 5:293-307.

Rayburn, J.R., D.J. Fort, R. McNew, and J.A. Bantle. 1991. Synergism and antagonism induced by three carrier solvents with t-retinoic acid and 6-aminonicotinamide. Bull. of Environ. Contam. and Tox. 46:625-32.

Rayburn, J.R., D.J. Fort, D.J. DeYoung, R. McNew, and J.A. Bantle. 1991. Altered developmental toxicity caused by three carrier solvents. J. of Appl. Tox. 11(4):253-60.

Reddy, T.V., L. Wan, E.L.C. Lin, F.B. Daniel, and G. Reddy. 1991. Formation and persistence of 1,3,5-trinitrobenzene adducts with blood proteins and tissue DNA. Toxicologist 11:131.

Rudd, C.J., and P.S. Lee. 1990. LP1845 liquid gun propellant dermal toxicity studies: CHO/HGPRT gene mutation assay of LP1846 liquid gun propellant. Final report, Project Order Number 89M4505. Menlo Park, CA: SRI International. AD A219649.

Sailstad, D.M., J.S. Tepper, and M.J.K. Selgrade. 1991. Evaluation of techniques to detect weak contact sensitizers. The Toxicologist 11(1):324.

Scarano, L., L.A. Baldwin, D.A. Leonard, P.T. Kostecki, and E.J. Calabrese. 1991. Evaluation of rainbow trout as a model for epigenetic carcinogens. Proc. Am. Assoc. Cancer Res. 32:85.

Shugart, L.R., W.H. Griest, E. Tan, C. Guzman, J.E. Caton, C.-H. Ho, and B.A. Tomkins. 1991. TNT metabolites in animal tissues. Project Order Number 88PP8866. Oak Ridge, TN: Oak Ridge National Laboratory. AD A240080.

Snell, T.W., B.D. Moffat, C. Janssen, and G. Persoone. 1991. Acute toxicity tests using rotifers: III. Effects of temperature, strain and exposure time on the sensitivity of Brachionus plicatilis. Environ. Tox. Water Quality 6:63-75.

Snell, T.W., B.D. Moffat, C. Janssen, and G. Persoone. 1991. Acute toxicity tests using rotifers: IV. Effects of cyst age, temperature, and salinity on the sensitivity of Brachionus calyciflorus. Ecotox. & Environ. Safety 21:308-17.

Swanson, M.H. 1991. Conductance biosensor for detecting microorganisms. Contract Number DAMD17-90-C-0079. Eden Prairie, MN: Biometric Systems, Inc.

Taylor, M.A. 1990. Mixed-bed, ion exchange device for water purification. Final report, Contract Number DAMD17-90-C-0090. Carlsbad, CA: Sepratech.

Weller, R.E., J.E. Morris, B.J. McClanahan, and R.F. Jostes, Jr. 1990. Evaluate the dermal toxicity of nitrate compounds and liquid gun propellants. Final report, Project Order Number 87PP7806. Richland, WA: Pacific Northwest Laboratory.

Winsett, D.W., J.S. Tepper, R.H. Jaskot, and D.L. Costa. 1991. Subchronic inhalation exposure to an organic red dye mixture: Effects on rat lung function. The Toxicologist 11(1):222.

Yang, J.-H., P.T. Kostecki, E.J. Calabrese, and L.A. Baldwin. 1990. Induction of peroxisome proliferation in rainbow trout exposed to ciprofibrate. Tox. and Appl. Pharma. 104:476-82.

Yang, J.-H., P.T. Kostecki, and E.J. Calabrese. 1990. Peroxisome proliferation as an epigenetic mechanism of carcinogenesis: Relevance to aquatic toxicology. In Aquatic toxicology and risk assessment, 309-27, eds. W.G. Landis and W. van der Schalie. American Society for Testing and Materials, Philadelphia, PA.

FY90

PUBLICATIONS: Health Effects Research Division

Open Literature Publications:

Bates, H.K., J.B. LaBorde, J.C. Dacre, and J.F. Young. 1990. Developmental toxicity of Soman in rats and rabbits. Teratology 42:15-23.

Burrows, W.D. 1990. Biological treatment of an explosives production wastewater. In Proceedings of the 22nd mid-Atlantic industrial waste conference, 339-54. Lancaster, PA.

Calabrese, E.J., W.D. Burrows, S.A. Schaub, J. Borzelleca, D. Brown, R. Bull, A. Furst, C. Gerba, E. Singley, V. Snoeyink, R. Tardiff, and R. Trussell. 1989. Drinking Water Health Effects Task Force. Health effects of drinking water treatment technologies. Chelsea, MI: Lewis Publishers Inc.

Finch, R.A., H.S. Gardner, and W.H. van der Schalie. 1990. Application of on-site biological assessment techniques at Army facilities. In Proceedings of the 17th environmental symposium, 295-301. American Defense Preparedness Association, Atlanta, GA.

Gardner, H.S., W.H. van der Schalie, M.J. Wolfe, and R.A. Finch. 1990. New methods for on-site biological monitoring of effluent water quality. In In situ evaluations of biological hazards of environmental pollutants, ed. S.S. Sandhu, 61-9. New York: Plenum Press.

Hoke, S.H., G. Howard, J. Skrutskie, and J. Fairchild. 1991. How to avoid analyte losses when sampling for toxic gases. In Proceedings of the 1991 JANNAF safety and environmental protection subcommittee meeting. Publication 569, Chemical Propulsion Information Agency, Laurel, MD.

Hoke, S.H., J. Skrutskie, and B.J. Christensen. 1990. Development of a hydrogen fluoride monitor. In Proceedings of the 1990 JANNAF safety and environmental protection subcommittee meeting. Publication 543, Chemical Propulsion Information Agency, Laurel, MD.

Landis, W.G. and W.H. van der Schalie (Eds). 1990. Aquatic Toxicology and Risk Assessment: Thirteenth Volume. ASTM STP 1096. American Society for Testing and Materials, Philadelphia, PA.

Levine, B.S., E.M. Furedi, D.E. Gordon, J.J. Barkley, and P.M. Lish. 1990. Toxic interactions of the munitions compounds TNT and RDX in F344 rats. Fund. Applied Toxicology 15:373-80.

Major, M.A., K.A. Bostian, and D.H. Rosenblatt. 1990. The Octanol/Water Partition Coefficient of Methylmercuric Chloride and Methylmercuric Hydroxide in Pure Water and Salt Solutions. Environ Toxicol and Chem. 10:5-8

Norton, W.N., and H. Gardner. 1990. Diethylnitrosamine induced spongiosis hepatitis in medaka, *Oryzias latipes*. In Proceedings of the XIIth international congress for electron microscopy, 370-71. San Francisco, CA: San Francisco Press, Inc.

Schaub, S.A. 1989. An overview of POU and POE microbiological water purification technologies and an approach to evaluating their effectiveness. In Proceedings of the fifth national domestic water quality symposium, 34-45. New Orleans, LA.

Small, M.J. 1989. The preliminary pollutant limit value approach: The PC-executable program version. In Proceedings of the 14th annual Army environmental R&D symposium, 595-99. Williamsburg, VA.

Van Beneden, R.J., K.W. Henderson, D.G. Blair, T.S. Papas, and H.S. Gardner. 1990. Oncogenes in hematopoietic and hepatic fish neoplasms. Cancer Research (Supplement) 50:5671s-74s.

In-House Publications:

Technical Reports

Carnevale, R.M., and W.D. Burrows. 1989. Optimum disinfection properties and commercially available disinfectants. Technical Report No. 8911. AD A219332.

Dacre, J.C., and W.D. Burrows. 1988. Recommended field drinking water criteria for chemical agent sulfur mustard. Technical Report No. 8816. AD A221745.

Major, M.A. 1989. Octanol/water partition coefficients of surface and ground water contaminants found at military installations. Technical Report No. 8810. AD A228860.

Mitchell, W.R., and E.P. Burrows. 1990. Assessment of red phosphorus in the environment. Technical Report No. 9005. AD A221704.

Neal, D.D., S.H. Hoke, and W.P. Spencer. 1990. NOx - Sources, properties, and analytical procedures. Technical Report No. 8907. AD A225295.

Palmer, W.G. 1990. Field water quality standards for BZ. Technical Report No. 9001. AD A220896.

Schmidt, M.O., R.M. Carnevale, and W.D. Burrows. 1989. Shower water recycle I. Raw shower water characterization and treatment. Technical Report No. 8904. AD B141375.

Small, M.J. 1989. The pollutant hazard assessment system: Documentation and user's manual. Technical Report No. 9003. AD A217108.

Young, J.Y., D.A. Smart, J.T. Allen, D.L. Parmer, A.B. Rosencrance, E.E. Bruggemann, and F.H. Broski. 1989. Field exposure of chemical school students and cadre to fog oil and hexachloroethane (HC) smokes. Technical Report No. 8908. AD A225008.

Extramural Study Reports/Publications:

Aranyi, C. 1990. Inhalation toxicity of single materials and mixtures: Phase I - Design and characterization of animal exposure facility. Contract No. DAMD17-89-C-9043. Chicago, IL: IIT Research Institute. AD A224937.

Bailey, G.S., D.E. Goeger, and J.D. Hendricks. 1989. Factors influencing carcinogenesis by polynuclear aromatic hydrocarbons or other genotoxins in laboratory fish models. In PAH Metabolism in the Aquatic Environment, ed. U. Varanasi, 253-68. Boca Raton, FL: CRC Press.

Bailey, G.S., and J.D. Hendricks. 1988. Environmental and dietary modulation of carcinogenesis in fish. Aquatic Toxicology. 11:69-76.

Baldwin, L.A., E.J. Calabrese, P.T. Kostecki, and Jae-Ho Yang. 1990. Isolation of peroxisomal enoyl-CoA hydratase in rainbow trout and immunochemical identification with the bifunctional enzyme. Fish Physiology and Biochemistry 8(4):347-51.

Bantle, J.A., D.J. Fort, and B.L. James. 1989. Identification of developmental toxicants using FETAX. Hydrobiol. 188/189:577-85.

Benignus, V.A., K.E. Muller, and C.M. Malott. 1990. Dose-effects functions for carboxyhemoglobin and behavior. Neurotoxicol. Teratol. 12(2):111-18.

Benignus, V.A., K.E. Muller, M.V. Smith, K.S. Pieper, and J.D. Prah. 1990. Compensatory tracking in humans with elevated carboxyhemoglobin. Neurotoxicol. Teratol. 12(2):105-10.

Benignus, V.A., M.L. Petrovick, and J.D. Prah. 1989. Neurobehavioral effects of carbon monoxide in humans: Elevated carboxyhemoglobin (COHb) and cerebrovascular responses. Project Order Number 81PP1812. Research Triangle Park, NC: U.S. Environmental Protection Agency.

Bowman, B., T.W. Snell, and B.J. Cochrane. 1989. Purification and characterization of glutathione S-transferases from two species of rotifers. Comp. Biochem. Physiol. 95B:619-24.

Brower, M.E., and W.R. Hartley. 1990. Health advisory for nitroguanidine (NQ). Project Order Number 85PP5869. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water.

Brown, D.F., W.E. Dunn, and A.J. Policastro. 1990. Assessment and computerized modeling of the environmental deposition of military smoke: Analysis of meteorological data from the AMADEUS smoke dispersion experiments. Project Order Number 90PP0819. Argonne, IL: Argonne National Laboratory. AD A237980.

Brown, L.D., C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of DIGL-RP solid propellant in Sprague-Dawley rats. Institute Report Number 409. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., J.D. Justus, and D.W. Korte. 1989. Acute dermal toxicity of DIGL-RP solid propellant in rabbits. Institute Report Number 407. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., and D.W. Korte. 1989. Primary dermal irritation potential of DIGL-RP solid propellant in rabbits. Institute Report Number 406. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., and D.W. Korte. 1989. Primary dermal irritation potential of ball powder in rabbits. Institute Report Number 349. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211285.

Brown, L.D., C.R. Wheeler, Y.C. Letellier, and D.W. Korte. 1989. Acute oral toxicity of DIGL-RP solid propellant in ICR mice. Institute Report Number 410. Presidio of San Francisco: Letterman Army Institute of Research.

Brown, L.D., Y.C. Letellier, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of trimethylolethane trinitrate (TMETN) in ICR mice. Institute Report Number 345. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211993.

Brown, L.D., J.D. Justus, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of JA-2 solid propellant in Sprague-Dawley rats. Institute Report Number 412. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Bunton, T.E. 1990. Hepatopathology of diethylnitrosamine in the Medaka (*Oryzias latipes*) following short-term exposure. Toxicol. Pathol. 18(2):313-23.

Bunton, T.E. 1990. The use of aquatic bioassay in carcinogenicity testing. Lab Animal 19(5):46-7.

Cooper, R.C., A.W. Olivieri, R.E. Danielson, P.G. Badger, R.C. Spear, and S. Selvin. 1986. Evaluation of military field drinking water quality, Volume 5. Infectious organisms of military concern associated with consumption: Assessment of health risks, and recommendations for establishing related standards. Livermore, CA: Lawrence Livermore National Laboratory.

Coppes, V.G., C.L. Gomez, C.B. Clifford, S. Ferrais, and D.W. Korte. 1990. Toxic potential of nitroguanidine on reproduction and fertility in rats. Institute Report Number 434. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Daniels, J.I., ed. 1990. Evaluation of military field-water quality, Volume 4. Health criteria and recommendations for standards, Part 2. Interim standards for selected threat agents and risks from exceeding these standards, 1-1-7-16. Project Order Number 82PP2817. Livermore, CA: Lawrence Livermore National Laboratory. Symposium XIV, Johns Hopkins University, 17-19 April, at Laurel, MD.

Dawson, D.A., D.J. Fort, D.L. Newell, and J.A. Bantle. 1989. Developmental toxicity testing with FETAX: Evaluation of five validation compounds. Drug Chem. Toxicol. 12:67-75.

DeVaul1, G.E., W.E. Dunn, J.C. Liljegren, and A.J. Policastro. 1989. Field measurement and model evaluation program for assessment of the environmental effects of military smokes: Analysis methods and results of hexachloroethane smoke dispersion experiments conducted as part of Atterbury-87 field studies. Project Order Number 84PP4822. Argonne, IL: Argonne National Laboratory. AD A216048.

DeVaul1, G.E., W.E. Dunn, J.C. Liljegren, and A.J. Policastro. 1989. Field measurement and model evaluation program for assessment of the environmental effects of military smokes: Analysis methods and results of hexachloroethane smoke dispersion experiments conducted as part of Atterbury-87 field studies. Project Order Number 84PP4822. Argonne, IL: Argonne National Laboratory. AD A216048.

Einhorn, I.N., and G. Moore. 1990. Utilization of neurophysiological protocols to characterize soldier response to irritant gases. Final report, Contract No. DAMD17-89-C-9136. Farmington, CT: Northeast Research Institute, Inc.

Fong, A.T., H.I. Swanson, R.H. Dashwood, D.E. Williams, J.D. Hendricks, and G.S. Bailey. 1990. Mechanisms of anti-carcinogenesis by indole-3-carbinol. Biochem. Pharmacol. 39:19-26.

Fong, A.T., H.I. Swanson, R.H. Dashwood, D.E. Williams, J.D. Hendricks, and G.S. Bailey. 1989. Mechanisms of anti-carcinogenesis by indole-3-carbinol: Studies of enzyme induction, electrophile-scavenging, and inhibition of aflatoxin B1 Activation. Biochem. Pharmacol. 39(1):19-26.

Fort, D.J., and J.A. Bantle. 1990. Use of frog embryo teratogenesis assay Xenopus and an exogenous metabolic activation system to evaluate the developmental toxicity of diphenylhydantoin. Fund. Appl. Toxicol. 14:720-33.

Fort, D.J., and J.A. Bantle. 1990. Analysis of the developmental toxicity of isoniazid using various exogenous metabolic activation systems with frog embryo teratogenesis assay-Xenopus (FETAX). Teratogen. Carcinog. Mutagen. 10:463-76.

Fort, D.J., B.L. James, and J.A. Bantle. 1989. The developmental toxicity of five compounds with the frog embryo teratogenesis assay-Xenopus (FETAX) and a metabolic activation system. J. Appl. Toxicol. 9:377-88.

Goldman, M., M. Nasr, N. Cone, L.S. Rosenblatt, and B.W. Wilson. 1989. Toxicity studies on agent GA: Mutagenicity of Tabun (GA) in the Ames mutagenicity assay. Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Hawkins, W.E., W.W. Walker, R.M. Overstreet. 1990. Carcinogenic effects of some polynuclear aromatic hydrocarbons on the Japanese medaka and guppy in waterborne exposures. Science of the Total Environment. 94:155-67.

Hawkins, W.E., W.W. Walker, J.S. Lytle, T.F. Lytle, and R.M. Overstreet. 1989. Carcinogenic effects of 7,12-dimethylbenz(a)anthracene on the guppy (*Poecilia reticulata*). Aquatic Toxicol. 15:63-82.

Henderson, J.D., R.J. Higgins, L. Rosenblatt, and B.W. Wilson. 1989. Toxicity studies on agent GA: Delayed neurotoxicity - acute and repeated exposures of GA (Tabun). Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Hendricks, J.D., D.N. Arbogast, and G.S. Bailey. 1990. Aroclor 1254 (PCB) enhancement of 7,12-dimethylbenz[a]anthracene (DMBA) hepatocarcinogenesis in rainbow trout. Proc. Amer. Assoc. Cancer Res. 31:122.

Hiatt, G.F.S., and D.W. Korte. 1989. Primary ocular irritation potential of nitrosoguanidine in male rabbits. Institute Report Number 358. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., J.D. Justus, and D.W. Korte. 1989. Primary eye irritation potential of DIGL-RP solid propellant in rabbits. Institute Report Number 408. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., S.K. Sano, and D.W. Korte. 1989. Acute dermal toxicity of guanidine hydrochloride in rabbits. Institute Report Number 419. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., and D.W. Korte. 1989. Primary eye irritation potential of trimethylolethane trinitrate (TMETN) in rabbits. Institute Report Number 348. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., L.D. Brown, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of trimethylene glycol nitrate (TEGDN) in Sprague-Dawley rats. Institute Report Number 338. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211313.

Hiatt, G.F.S., D.F. Frost, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of ball powder in ICR mice. Institute Report Number 351. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A212011.

Jostes, R.F., Jr., L.B. Sasser, and R.J. Rausch. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Genetic toxicity of Lewisite (L) in Chinese hamster ovary cells. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Jostes, R.F., Jr., L.B. Sasser, and R.J. Rausch. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Genetic toxicity of sulfur mustard (HD) in Chinese hamster ovary cells. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Kawakami, T.G., N. Cone, J.D. Henderson, M. Goldman, L.S. Rosenblatt, and B.W. Wilson. 1989. Toxicity studies on agent GA: Unscheduled DNA synthesis in rat hepatocytes after exposure to Tabun (GA). Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Kawakami, T.G., N. Cone, J.D. Henderson, L.S. Rosenblatt, M. Goldman, J.C. Dacre, and B.W. Wilson. 1990. Genotoxicity of the phosphoramidate agent Tabun (GA). Project Order No. 87PP7827. The Toxicologist 10:95.

Kawakami, T.G., M. Goldman, L. Rosenblatt, and B.W. Wilson. 1989. Toxicity studies on agent GA: Mutagenicity of agent GA (Tabun) in the mouse lymphoma assay. Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Kawakami, T.G., M. Nasr, N. Cone, L. Rosenblatt, M. Goldman, and B.W. Wilson. 1989. Toxicity studies on agent GA: In vivo sister chromatid exchange assay. Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Kennedy, R.S., R.C. Wilkes, W.P. Dunlap, J.E. Fowlkes, and M.G. Smith. 1990. Characterizing soldier responses to irritant gases. Final report, Contract Number DAMD17-89-C-9135. Orlando, FL: Essex Corporation.

Lauren, D.J., P.P. Halarikar, B.D. Hammock, and D.E. Hinton. 1989. Microsomal and cytosolic epoxide hydrolase and glutathione S-transferase activities in the gill, liver, and kidney of the rainbow trout, *Salmo Gairdneri*. Pharmacology 38(6):881-87.

Lee, B.C., J.D. Hendricks, and G.S. Bailey. 1989. Rare renal neoplasms in *Salmo gairdneri* exposed to MNNG (N-methyl-N'-nitro-N-nitrosoguanidine). Dis. Aquat. Organisms 6:105-11.

Lee, B.C., J.D. Hendricks, and G.S. Bailey. 1989. Iron resistance of hepatic lesions and nephroblastoma in rainbow trout (*Salmo gairdneri*) exposed to MNNG. Toxicol. Pathol. 17:474-82.

Letellier, L.C., L.D. Brown, and D.W. Korte. 1989. Dermal sensitization potential of trimethylolethane trinitrate (TMETN) in guinea pigs. Institute Report Number 346. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211318.

Letellier, Y.C., S.K. Sano, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of trimethylolethane trinitrate (TMETN) in Sprague-Dawley rats. Institute Report Number 344. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211981.

Letellier, Y.C., L.D. Brown, and D.W. Korte. 1989. Dermal sensitization potential of DIGL-RP solid propellant in guinea pigs. Institute Report Number 411. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Letellier, Y.C., C.M. Lewis, and D.W. Korte. 1989. Acute dermal toxicity of JA-2 solid propellant in rabbits. Institute Report Number 416. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Liljegren, J.C., W.E. Dunn, G.E. DeVaul, and A.J. Policastro. 1989. Field measurement and model evaluation program for assessment of the environmental effects of military smokes: The Atterbury field study of smoke dispersion and a new stochastic dispersion model. Final report, Project Order Number 84PP4822. Argonne, IL: Argonne National Laboratory.

Malins, D.C., G.K. Ostrander, R. Haimanot, and P. Williams. 1990. A novel DNA lesion in neoplastic livers of feral fish: 2,6-diamino-4-hydroxy-5-formamidopyrimidine. Carcinogenesis 11(6):1045-47.

Mangold, K.A., Y.J. Chang, C.Z. Mathews, K. Marien, J.D. Hendricks, and G.S. Bailey. 1990. Characterization of two distinct ras genes expressed in liver tissue from rainbow trout. Proc. Amer. Assoc. Cancer Res. 31:131.

McCartney, M.L. 1990. Sensitivity analysis applied to Coburn-Forster-Kane models of carboxyhemoglobin formation. Am. Ind. Hyg. Assoc. J. 51(3):169-77.

McElroy, A.E., and J.D. Sisson. 1989. Trophic transfer of benzo[a]pyrene metabolites between benthic marine organisms. Marine Environmental Research 28:265-69.

McMahon, G., L.J. Huber, M.J. Moore, J.J. Stegeman, and G.N. Wogan. 1990. Mutations in c-Ki-ras oncogenes in diseased livers of winter flounder from Boston Harbor. Proc. Natl. Acad. Sci. 87:841-45.

Moneyhun, J.H., R.A. Jenkins, R.S. Ramsey, and T.M. Gayle. 1989. Chemical characterization and toxicologic evaluation of airborne mixtures: A system for generating mixed aerosols from a petroleum based liquid and a fine solid. Final report, Project Order Number 82PP2802, Oak Ridge, TN: Oak Ridge National Laboratory.

Morgan, E.W., C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of nitroguanidine in Sprague-Dawley rats. Institute Report Number 353. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., and D.W. Korte. 1989. Primary dermal irritation potentials of nitroguanidine in female rabbits. Institute Report Number 356. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., J.D. Justus, D.F. Frost, and D.W. Korte. 1989. Dermal sensitization potential of nitroguanidine in guinea pigs. Institute Report Number 357. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., C.R. Wheeler, D.W. Korte. 1989. Acute oral toxicity of nitroguanidine in ICR mice. Institute Report Number 354. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., J.D. Justus, and D.W. Korte. 1989. Acute dermal toxicity of nitroguanidine in rabbits. Institute Report Number 355. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., D.F. Frost, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of JA-2 solid propellant in ICR mice. Institute Report Number 414. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., J.D. Brogden, and D.W. Korte. 1989. Primary eye irritation potential of JA-2 solid propellant in rabbits. Institute Report Number 415. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., J.D. Justus, and D.W. Korte. 1989. Primary dermal irritation potential of JA-2 solid propellant in rabbits. Institute Report Number 413. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., C.D. Brown, and D.W. Korte. 1989. Dermal sensitization potential of JA-2 solid propellant in guinea pigs. Institute Report Number 417. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., G.F.S. Hiatt, and D.W. Korte. 1989. Acute oral toxicity of guanidine hydrochloride in mice. Institute Report Number 418. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., G.F.S. Hiatt, and D.W. Korte. 1989. Primary ocular irritation potential of ball powder in male rabbits. Institute Report Number 352. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A2121080.

Morgan, E.W., L.O. Lollini, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of ball powder in Sprague-Dawley rats. Institute Report Number 350. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211317.

Morgan, E.W., and D.W. Korte. 1989. Acute dermal toxicity of trimethylolethane trinitrate (TMETN) in rabbits. Institute Report Number 347. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A211295.

Nasr, M., N. Cone, T.G. Kawakami, M. Goldman, L. Rosenblatt, and B.W. Wilson. 1988. Toxicity studies on agent GA: Mutagenicity of agent GA (Tabun) in the In Vitro cytogenetic sister chromatid exchange test. Project Order Number 87PP7827. Davis, CA: Laboratory for Energy-Related Health Research.

Parker, R.M., J.D. Crowell, T.J. Bucci, J.D. Thurman, and J.C. Dacre. 1990. Thirteen week oral toxicity studies of Tabun (GA) using CD rats. Project Order Number 87PP7831. The Toxicologist 10:343.

PolICASTRO, A.J., D.M. Maloney, W.E. Dunn, J.C. Liljegren, and G.E. DeVaul. 1989. Field measurement and model evaluation program for assessment of the environmental effects of military smokes: Evaluation of atmospheric dispersion models for fog oil smoke dispersion. Project Order Number 84PP4822. Argonne, IL: Argonne National Laboratory. AD A216055.

Policastro, A.J., D.M. Maloney, W.E. Dunn, J.C. Liljegren, and G.E. DeVaul. 1989. Field measurement and model evaluation program for assessment of the environmental effects of military smokes: Annual report. Project Order Number 84PP4822. Argonne, IL: Argonne National Laboratory. AD A216054.

Pratt, J.R., and N.J. Bowers. 1990. Effects of selenium on microbial communities in laboratory microcosms and outdoor streams. Tox. Assess. 5:293-307.

Pratt, J.R. 1990. Aquatic ecosystem responses to stress. In Aquatic Toxicology and Environmental Fate Symposium, vol. 13, ASTM, ed. W.G. Landis and W.H. van der Schalie, 16-26. Philadelphia, PA: American Society for Testing and Materials.

Pratt, J.R., and N.J. Bowers. 1990. A microcosm method for evaluating ecological effects of chemicals and mixtures. Tox. Assess. 5:189-205.

Sasser, L.B., J.A. Cushing, and J.C. Dacre. 1990. Dominant lethal effect of sulfur mustard in rats. Project Order Number 84PP4685. The Toxicologist 10:225.

Sasser, L.B., J.A. Cushing, D.R. Kalkwarf, and R.L. Buschbom. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Modified dominant lethal study of sulfur mustard in rats. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Sasser, L.B., J.A. Cushing, D.R. Kalkwarf, P.W. Mellick, and R.L. Buschbom. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Two-generation reproduction study of Lewisite in rats. Project Order Number 84PP4865. Richland WA: Battelle Pacific Northwest Laboratory.

Sasser, L.B., J.A. Cushing, D.R. Kalkwarf, P.W. Melick, and R.L. Buschbom. 1989. Toxicology studies on Lewisite and sulfur agents: Subchronic toxicity study of Lewisite in rats. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Sasser, L.B., R.A. Miller, D.R. Kalkwarf, R.L. Buschbom, and J.A. Cushing. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Two-generation reproduction study of sulfur mustard (HD) in rats. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Sasser, L.B., R.A. Miller, D.R. Kalkwarf, R.L. Buschbom, and J.A. Cushing. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Subchronic toxicity of sulfur mustard (HD) in rats. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Schell, Jr., J.D., and M.O. James. 1989. Glucose and sulfate conjugation of phenolic compounds by the spiny lobster (*Panulirus argus*). J. Biochem. Toxicol. 4:133-38.

Smolowitz, R.M., M.J. Moore, and J.J. Stegeman. 1989. Cellular distribution of cytochrome P-450E in winter flounder liver with degenerative and neoplastic disease. Marine Environ. Res. 28:441-46.

Snelson, A., P. Ase, K. Taylor, and S. Gordon. 1990. Combustion product evaluation of various charge sizes. Final report, Contract No. DAMD17-88-C-8006. Chicago, IL: IIT Research Institute.

Stewart, D.L., E.J. Sass, L.K. Fritz, and L.B. Sasser. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Mutagenicity of Lewisite in the salmonella histidine reversion assay. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Stewart, D.L., E.J. Sass, L.K. Fritz, and L.B. Sasser. 1989. Toxicology studies on Lewisite and sulfur mustard agents: Mutagenicity of sulfur mustard in the salmonella histidine reversion assay. 1989. Project Order Number 84PP4865. Richland, WA: Battelle Pacific Northwest Laboratory.

Warner, J.S. 1990. Review of reactions of biotoxins in water (CBIAC Task 152). Final report, MIPR No. 90MM0530. Columbus, OH: Battelle Memorial Institute. AD A225908.

Yang, Jae-Ho, P.T. KostECKi, D.J. Calabrese, and L.A. Baldwin. 1990. Induction of peroxisome proliferation in rainbow trout exposed to ciprofibrate. Toxicology and Applied Pharmacology 104:476-82.

PUBLICATIONS: Field Medical Materiel Development Division

Open Literature Publications:

Boobar, L.R. 1990. Program overview - the BRDL vision. In Proceedings of the U.S. Army Medical Department biennial medical entomology training course, 107-08. San Antonio, TX.

Burrows, W.D., and J.H. Nelson. 1990. IV fluidmaker: Preparation of sterile water for injection in a field setting. In Proceedings of the Army science conference, 201-11. Durham, NC.

Edgecomb, R.S. 1990. Vector control advisor system - a new level of readiness. In Proceedings of the U.S. Army Medical Department biennial medical entomology training course, 109-10. San Antonio, TX.

Gupta, R.K. 1990. Composite repellents - an innovative concept in personal protection. In Proceedings of the U.S. Army Medical Department biennial medical entomology training course, 113-14. San Antonio, TX.

Gupta, R.K., L.C. Rutledge, and D.W. Korte, Jr. 1990. Portable tray for anesthetizing and sorting insects. J. Med. Entomol. 27:406-08.

Gupta, R.K., L.C. Rutledge, W.G. Reifenrath, G.A. Gutierrez, and D.W. Korte, Jr. 1990. Resistance of permethrin-treated fabric to weathering for protection against mosquitoes. J. Med. Entomol. 6:494-500.

Gupta, R.K., and D.W. Korte, Jr. 1989. Mutagenic potential of nitroguanidine and nitrosoguanidine in the Drosophila melanogaster sex-linked recessive lethal test. CPIA Publication 508:101-10.

Gupta, R.K., L.C. Rutledge, and W.J. Letourneau. 1989. An improved laboratory test cage for testing repellents on human volunteers. J. Am. Mosq. Control Assoc. 5:436-39.

Perich, M.J. 1990. Integrated vector control strategies - methodologies for disease control in the future. In Proceedings of the U.S. Army Medical Department biennial medical entomology training course, 115-16. San Antonio, TX.

Perich, M.J., and L.R. Boobar. 1990. Effects of the predator Dugesia dorotocephala (Tricladida: Turbellaria) on selected nontarget aquatic organisms: Laboratory bioassay. Entomophaga 35:79-83.

Perich, M.J., L.R. Boobar, J.C. Stivers, and L.A. Rivera. 1989. Evaluation of diverse formulations of B.t.i. against Anopheles albimanus in Honduras. In Proceedings of the coordination workshop on bacterial control of agriculture insect pests and vectors of human diseases. En Gedi, Israel. Israel J. Entomol. 23:45-9.

Perich, M.J., L.R. Boobar, J.C. Stivers, and L.A. Rivera. 1990. Field evaluation of four biorational larvicide formulations against Anopheles albimanus in Honduras. Med. Vet. Entomol. 4:393-96.

Perich, M.J., M.A. Tidwell, L.R. Boobar, D.C. Williams, C.J. Pena, and M.R. Sardelis. 1990. Comparison of ground and aerial ultra-low volume applications of malathion against Aedes aegypti in Santo Domingo, Dominican Republic. J. Am. Mosq. Control Assoc. 6:1-6.

Rutledge, L.C., R.L. Hooper, R.A. Wirtz, and R.K. Gupta. 1989. A field trial of ethyl hexanediol against Aedes dorsalis in Sonoma County, California. J. Am. Mosq. Control Assoc. 5:374-76.

Rutledge, L.C., R.L. Hooper, R.A. Wirtz, and R.K. Gupta. 1989. Efficacy of diethyl methylbenzamide (DEET) against Aedes dorsalis and a comparison of two end points for protection time. J. Am. Mosq. Control Assoc. 5:363-68.

Solberg, V.B., F.H. Broski, R.E. Dinterman, and D.T. George. 1990. Penetration of [³H]T-2 mycotoxin through abraded and intact skin and methods to decontaminate [³H]T-2 mycotoxin from abrasions. Toxicon. 28:803-11.

In-House Publications:

Technical Reports

Dubill, P.M., and L.R. Strzelecki. 1990. Evaluation of commercial pneumatic bandage. Technical Report No. 9003. AD A219514.

Reams, W.H., D.D. Baker, Jr., and S.W. Reichard. 1990. Adjustable field hospital bed: effects of prototype leg braces on stability, load-bearing capacity, and rough terrain use. Technical Report No. 9004. AD A228779.

Memorandum Reports

Hodge, J.W. 1989. Convulsant antidote nerve agent autoinjector altitude test. Memorandum Report No. 20-89.

Hodge, J.W., and G.E. Toms. 1989. New lightweight surgical scrub sink, power module. Memorandum Report No. 21-89.

Hodge, J.W. 1990. Temperature effects on dispersal of atropine aerosol. Memorandum Report No. 1-90.

Gula, P.R., and G.E. Toms. 1990. Technical testing of the steam vacuum pulse (SVP) sterilizer manufactured by MDT Castle Corporation. Memorandum Report No. 2-90.

Hodge, J.W., and G.E. Toms. 1990. Environmental protection container, medical supplies 1st article test. Memorandum Report No. 3-90.

Hodge, J.W., P.R. Gula, and G.E. Toms. 1990. Pesticide dispersal unit, multicapability helicopter slung, first article test. Memorandum Report No. 4-90.

Hodge, J.W., and G.E. Toms. 1990. Convulsant antidote nerve agent autoinjectors test report. Memorandum Report No. 5-90.

Hodge, J.W., and G.E. Toms. 1990. Convulsant antidote nerve agent autoinjector follow on technical test. Memorandum Report No. 6-90.

Hodge, J.W., and G.E. Toms. 1990. Multichamber autoinjector (DUPHAR) follow on technical test. Memorandum Report No. 7-90.

Hodge, J.W., and G.E. Toms. 1990. Multichamber autoinjector (Survival Tech) follow on technical test. Memorandum Report No. 8-90.

Gula, P.R., and G.E. Toms. 1990. Readiness testing of portable oxygen concentrators (Portox). Memorandum Report No. 9-90.

Hodge, J.W., and G.E. Toms. 1990. Nerve agent pretreatment pyridostigmine follow on test report. Memorandum Report No. 10-90.

Hodge, J.W., and G.E. Toms. 1990. Litter decontaminable 1st article test. Memorandum Report No. 11-90.

Hodge, J.W. 1990. Individual Dynamic absorption kit (IDAA). Memorandum Report No. 12-90.

Hodge, J.W., and G.E. Toms. 1990. Convulsant antidote, nerve agent, training test report. Memorandum Report No. 13-90.

Judge, J., and P. Gula P. 1990. Test and evaluation of resuscitation device, individual, chemical. Memorandum Report No. 14-90.

Gula, P.R. 1990. Technical review comments for PDU manual. Memorandum Report No. 15-90.

Hodge, J.W., and G.E. Toms. 1990. Survival Technology MA improved dispersal test report. Memorandum Report No. 16-90.

Hodge, J.W., and G.E. Toms. 1990. Duphar MA type A90. Memorandum Report No. 17-90.

Hodge, J.W., and G.E. Toms. 1990. Duphar MA type B90 test report. Memorandum Report No. 18-90.

Extramural Study Reports/Publications:

Burke, J.W. 1990. Nozzle assembly for Army mass delousing outfit. Final report, phase I, DAMD17-89-C-9131. Waldorf, MD: Cardinal Scientific, Inc.

Motz, J.W. 1990. Sealed rotating anode x-ray tube with enhanced power and duty cycle. Final report, phase I, DAMD17-89C-9133. Rockville, MD: Rayex Corporation.

Peschmann, K.R. 1990. High duty cycle, high power x-ray tube. Final report, phase I, DAMD17-89-C-9139. San Francisco, CA: Imatron, Incorporated.

FY89

PUBLICATIONS: Health Effects Research Division

Open Literature Publications:

Burrows, E.P. 1989. Environmental microbiology and effects of nitroguanidine on physiology of plants. In U.S. Army Toxic and Hazardous Materials Agency proceedings for the 13th annual environmental quality research and development symposium, 464. Williamsburg, VA.

Burrows, W.D. 1989. The photochemistry of nitroguanidine in water and other treatment considerations. In U.S. Army Toxic and Hazardous Materials Agency proceedings for the 13th annual environmental quality research and development symposium, 463. Williamsburg, VA.

Dacre, J.C. 1989. Toxicological studies on chemical agents GA, GB, GD, VX, HD and L. In Proceedings of 3rd international symposium on protection against chemical warfare agents, 179. Umea, Sweden.

Dacre, J.C. 1989. Delayed neuropathy studies on agents GA, GB, BD and VX. In Proceedings of the 1989 medical defense bioscience review conference, 234-40. Columbia, MD.

Goldman, M., and J.C. Dacre. 1989. Lewisite: Its chemistry, toxicology and biological effects. Rev. Environ. Contam. Toxicol. 110:75-115.

Hoke, S.H., and V.R. Rivera. 1989. A near real-time HCl monitor. In Proceedings of the 1988 JANNAF safety and environmental protection subcommittee meeting. Publication 485, Chemical Propulsion Information Agency, Laurel, MD.

Hoke, S.H., and V.R. Rivera. 1989. A near real-time atmospheric HCl monitor. In Proceedings of test technology symposium I. Science and Technology Corporation, Hampton, VA.

Major, M. 1989. Laboratory analysis of the toxic effect of purified nitroguanidine and nitroguanidine photolysis products on selected freshwater organisms. In U.S. Army Toxic and Hazardous Materials Agency proceedings for the 13th annual environmental quality research and development symposium, 466. Williamsburg, VA.

Mitchell, W. 1989. Biodegradation of the guanidine component of nitroguanidine wastestreams by environmental aerobes. In U.S. Army Toxic Hazardous Materials Agency proceedings for the 13th annual environmental quality research and development symposium, 465. Williamsburg, VA.

Reddy, G., K. Eisenhug, S.A. Morrison, and J.K. Kelly. 1989. Toxicokinetics of ¹⁴C-RDX (Cyclotrimethylenetrinitramine) in rats after intraperitoneal administration. The Toxicologist 9:83.

Reddy, G., and D.W. Korte. 1989. Mammalian toxicity studies with nitroguanidine. In U.S. Army Toxic and Hazardous Materials Agency proceedings for the 13th annual environmental quality research and development symposium, 436-49. Williamsburg, VA.

Rosenblatt, D H., and J.J. Barkley, Jr. 1989. Army criterion development for active and inactive hazardous waste sites. In Abstracts. Air & Waste Management Association, 74-5. Anaheim, CA.

van der Schalie, W.H., T.R. Shedd, and M.G. Zeeman. 1988. Ventilatory and movement responses of bluegills exposed to 1,3,5-trinitrobenzene. In Aquatic toxicology and hazard assessment, ed. W.J. Adams, G.A. Chapman, and W.G. Landis, 307-15. Tenth volume, ASTM STP 971. Philadelphia, PA: American Society for Testing and Materials.

van der Schalie, W.H., T.R. Shedd, and M.G. Zeeman. 1988. Ventilatory and movement responses of rainbow trout exposed to 1,3,5-trinitrobenzene in an automated biomonitoring system. In Automated biomonitoring: Living sensors as environmental monitors, ed. D. Gruber, and J. Diamond, 67-74. West Essex, England: Ellis Horwood Ltd.

In-House Publications:

Technical Reports

Bausum, H.T. 1989. Recommended water quality criteria for octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX). Technical Report No. 8812.

Burrows, E.P., D.H. Rosenblatt, W.R. Mitchell, and D.L. Parmer. 1989. Organic explosives and related compounds: Environmental and health considerations. Technical Report No. 8901. AD A210554.

Burrows, W.D., E.T. Paulson, and R.P. Carnahan. 1988. Biological treatment of composition B. Wastewaters II. Analysis of performance of Holston Army ammunition plant wastewater treatment facility, January 1985 through August 1986. Technical Report No. 8806. AD A217636.

Burrows, W.D., M.O. Schmidt, R.H. Chyrek, and C.I. Noss. 1988. Photochemistry of aqueous nitroguanidine. Technical Report No. 8808. AD A203200.

Eaton, J.C. and J.Y. Young. 1989. Medical criteria for respiratory protection in smoke: The effectiveness of the military protective mask. Technical Report No. 8902.

Parmer, D.L., D.A. Smart, K.G. Torrington, T.G. Mundie, G.R. Ruppel, and R.H. Svihlik. 1989. Ventilatory requirements on M1 tank crew members during simulated battlefield conditions. Technical Report No. 8909. AD A217595.

Small, M.J. 1989. The preliminary pollutant limit value approach: Manual for users. Technical Report No. 8918.

Extramural Study Reports/Publications:

Bhattacharyya, M.H., D.P. Peterson, S.A. Johnson, J.H. Stebbings, D.B. Goun, I. Janssen, and D.L. Parmer. 1989. Acute lead exposures and biological responses among U.S. Army artillery men. Toxicologist 9(1):20.

Brown, L.D., and D.W. Korte. 1988. Acute dermal toxicity of diethyleneglycol dinitrate in rabbits. Institute Report Number 291. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., and D.W. Korte. 1988. Primary dermal irritation potential of diethyleneglycol dinitrate (DEGDN) in rabbits. Institute Report Number 304. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., and D.W. Korte. 1989. Dermal sensitization potential of triethyleneglycol dinitrate (TEGDN) in guinea pigs. Institute Report Number 340. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., J.R.G. Ryalick, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of diethyleneglycol dinitrate (DEGDN) in rats. Institute Report Number 335. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Brown, L.D., and D.W. Korte. 1989. Primary dermal irritation potential of triethyleneglycol dinitrate (TEGDN) in rabbits. Institute Report Number 339. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Clark, D.N. 1989. Review of reactions of chemical agents in water. Project Order No. 88PP8847. Columbus, OH: Battelle Columbus Laboratory.

Coppes, V.G., C.L. Gomez, D.K. Magnuson, and D.W. Korte. 1988. Developmental toxicity potential of nitroguanidine in rabbits. Institute Report Number 298. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Frost, D.F., E.W. Morgan, Y. Letellier, M.J. Pearce, S. Ferraris, C.D. Smith, G.M. Zaucha, and D.W. Korte. 1988. Ninety day subchronic oral toxicity study of nitroguanidine in mice. Institute Report Number 319. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Gupta, R.K., V.O.M. Villa, and D.W. Korte. 1988. Mutagenic potential of nitrosoguanidine in the drosophila melanogaster sex-linked recessive lethal test. Institute Report Number 283. Presidio of San Francisco, CA: Letterman Army Institute of Research. AD A199154.

Harbell, J.W., L.D. Witcher, and D.W. Korte. 1988. Sister chromatid exchange assay of nitrosoguanidine in the Chinese hamster ovary cells. Institute Report Number 318. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., and D.W. Korte. 1989. Primary eye irritation potential of triethyleneglycol dinitrate (TEGDN) in rabbits. Institute Report Number 341. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., and D.W. Korte. 1988. Primary eye irritation potential of diethyleneglycol dinitrate (DEGDN) in rabbits. Institute Report Number 303. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Hiatt, G.F.S., J.R.G. Ryabik, and D.W. Korte. 1988. Dermal sensitization potential of diethyleneglycol dinitrate (DEGDN) in guinea pigs. Institute Report Number 307. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Jostes, R.J., R.J. Rausch, B.M. Miller, L.B. Sasser, and J.C. Dacre. 1989. Genotoxicity of Lewisite in Chinese hamster ovary cells. The Toxicologist 9:232.

Lijegren, J.C., W.E. Dunn, G.E. DeVaul, and A.J. Policastro. 1988. Field study of fog-oil smokes. Project Order No. 84PP4822. Argonne, IL: Argonne National Laboratory.

Menzies, K.T., M.A. Randel, and A.L. Quill. 1989. Evaluation of weapons: Combustion products in armored vehicles. Final report, Contract No. DAMD17-86-C-6245. Cambridge, MA: Arthur D. Little, Inc.

Morgan, E.W., M.J. Pearce, G.M. Zaucha, C.M. Lewis, G.T. Makovec, and D.W. Korte. 1988. Ninety day subchronic oral toxicity study of nitroguanidine in rats. Institute Report Number 306. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., and D.W. Korte. 1989. Acute dermal toxicity of triethyleneglycol dinitrate (TEGDN) in rabbits. Institute Report Number 342. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Morgan, E.W., J.R.G. Ryabik, C. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of triethyleneglycol dinitrate (TEGDN) in ICR mice. Institute Report Number 337. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Parker, R.M., J.A. Crowell, T.J. Bucci, and J.C. Dacre. 1989. Subchronic oral toxicity studies of Savin, type I and II and Soman using CD rats. The Toxicologist 9:108.

Ryabik, J.R.G., L.D. Brown, C.R. Wheeler, and D.W. Korte. 1989. Acute oral toxicity of diethyleneglycol dinitrate (DEGDN) in ICR mice. Institute Report Number 336. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sano, S.K., and D.W. Korte. 1988. Mutagenic potential of DIGL-RP solid propellant in the Ames salmonella/mammalian microsome mutagenicity test. Institute Report Number 293. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sano, S.K., and D.W. Korte. 1988. Mutagenic potential of JA-2 solid propellant in the Ames salmonella/mammalian microsome mutagenicity test. Institute Report Number 294. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sano, S.K., and D.W. Korte. 1988. Mutagenic potential of trimethylolethane trinitrate in the Ames salmonella/mammalian microsome mutagenicity test. Institute Report Number 295. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sano, S.K., and D.W. Korte. 1988. Mutagenic potential of diethyleneglycol dinitrate in the Ames salmonella/mammalian microsome mutagenicity test. Institute Report Number 292. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sano, S.K., E.W. Morgan, and D.W. Korte. 1988. Mutagenic potential of ballpowder in the Ames salmonella/mammalian microsome mutagenicity test. Institute Report Number 297. Presidio of San Francisco, CA: Letterman Army Institute of Research.

Sasser, L.B., J.A. Cushing, R.L. Buschbom, and J.C. Dacre. 1989. Two generation reproduction study of sulfur mustard in rats. The Toxicologist 9:274.

Wilson, B.W., J.D. Henderson, R.J. Higgins, and J.C. Dacre. 1989. Neurotoxicity and repeated exposure of phosphoramidates to chickens. The Toxicologist 9:75.

PUBLICATIONS: Field Medical Materiel Development Division

Open Literature Publications:

Anderson, L.M., J.H. Nelson, B.L. Bunner, and L.R. Boobar. 1989. Correlation of mortality rates of Aedes aegypti (Diptera: Culicidae) and chlorpyrifos deposited on sentinel cage screen material. J. Entomol. Sci. 24:191-97.

Boobar, L.R., S.E. Dobson, M.J. Perich, W.M. Darby, and J.H. Nelson. 1988. Effects of screen materials on droplet size frequency distribution of aerosols entering sentinel mosquito exposure tubes. Med. Vet. Entomol. 2:379-84.

Bunner, B.L., J.G. Pace, C.F. Matson, and R.W. Wannemacher, Jr. 1989. Field expedient dermal decontamination of low molecular weight toxins (T-2 mycotoxin). In Proceedings for the symposium on agents of biological origins, 108-14. Johns Hopkins University, Laurel, MD.

Bunner, B.L., J.G. Pace, C.F. Matson, and R.W. Wannemacher, Jr. 1989. Field expedient dermal decontamination of low molecular weight toxins (T-2 mycotoxin). In Proceedings of the 1989 medical defense bioscience review, 277-84. Johns Hopkins University, Laurel, MD.

Bunner, B.L., M.J. Perich, and L.R. Boobar. 1989. Culicidae (Diptera) mortality resulting from insecticide aerosols compared with mortality from droplets on sentinel cages. J. Med. Entomol. 26:222-25.

Bunner, B.L., F.G. Posa, S.E. Dobson, F.H. Broski, and L.R. Boobar. 1989. Aerosol penetration relative to sentinel cage configuration and orientation. J. Am. Mosq. Control Assoc. 5:547-51.

Bunner, B.L., R.L. Scott, S.E. Dobson, L.M. Anderson, and L.R. Boobar. 1989. Comparison of artificial membrane with live host bloodfeeding of Aedes aegypti (L.) (Diptera: Culicidae). J. Entomol. Sci. 24:198-203.

Bunner, B.L., R.W. Wannemacher, Jr., R.E. Dinterman, and F.H. Broski. 1989. Cutaneous absorption and decontamination of [³H]T-2 toxin in the rat model. J. Toxicol. Environ. Health 26:413-23.

Darby, W.M., L.R. Boobar, and M.R. Sardelis. 1988. A method for dispensing planaria (Dugesia dorotocephala) for mosquito control. J. Am. Mosq. Control Assoc. 4:545-46.

Dubill, P.M. 1989. Automated anesthesia system. In Proceedings of the triservice pulmonary research review and analysis, 99. Denver, CO.

Perich, M.J., W.M. Darby, and D.E. Bay. 1989. A modified bioassay container for aquatic organisms. J. Med. Entomol. 26:375-77.

Sardelis, M.R., D.W. Misch, and L.R. Boobar. 1989. An improved semi-micro manipulator for precise injection into mosquito larvae. J. Am. Mosq. Control Assoc. 5:601-02.

Sardelis, M.R., K. Neidhardt, M.J. Perich, E.G. Milstrey, H.J. Harlan, and L.R. Boobar. 1989. Reduction of the Amblyomma americanum (Acari:Ixodidae) population at Fort A.P. Hill, Virginia, by aerial application of diazinon granules: Correlation of percentage control with received dose. J. Med. Entomol. 26:494-96.

Strzelecki, L.R., and J.H. Nelson. 1989. Evaluation of closed container flash sterilization system. Orthopaedic Nursing 8(1):21-4.

Strzelecki, L.R. 1989. Evaluation of the demand oxygen controller (DOC) versus continuous flow of oxygen in anesthetized pigs. In Proceedings of the tri-service pulmonary research review and analysis, 99. Denver, CO.

In-House Publications:

Technical Reports

Burrows, W.D., and J.H. Nelson. 1988. IV Fluidmaker: Preparation of sterile water for injection in a field setting. Technical Report No. 8814. AD A207411.

Dubill, P.M., J.W. Hodge, T.P. Greene, and G.E. Toms. 1989. Evaluation of commercial IV pressure infusors. Technical Report No. 8817. AD A207081.

Sardelis, M.R., P.R. Gula, C.D. Mara, and R.S. Edgecomb. 1989. Engineering evaluation of gasoline-powered, ultra-low volume aerosol, generators. Technical Report No. 8910.

Memorandum Reports

Gula, P.R., T.P. Green, and G.E. Toms. 1988. The Micro-Gen model E-44 electric warehouse dispersal machine test and evaluation. Memorandum Report No. 22-88.

Hodge, J.W., and T.P. Green. 1988. Prototype hypertonic saline dextran solution IV bags, supplemental test report. Memorandum Report No. 23-88.

Hodge, J.W., T.P. Green, and G.E. Toms. 1988. Pressure infusion devices, supplemental test report. Memorandum Report No. 24-88.

Gula, P.R., and G.E. Toms. 1988. Environmental tests of six portable ventilators, test data and observations. Memorandum Report No. 25-88.

Hodge, J.W., and G.E. Toms. 1989. Morphine auto injectors (Medimech). Memorandum Report No. 1-89.

Hodge, J.W., and G.E. Toms. 1989. Morphine auto injectors (Survival Tech). Memorandum Report No. 2-89.

Hodge, J.W., and G.E. Toms. 1989. Personal decontaminating kit. Memorandum Report No. 3-89.

Toms, G.E., and J.W. Hodge. 1989. Auto injector, plastic wrapper (Survival Technology). Memorandum Report No. 4-89.

Hodge, J.W., and G.E. Toms. 1989. Morphine auto injectors (Duphar). Memorandum Report No. 5-89.

Gula, P.R., and G.E. Toms. 1989. Test and evaluation of a new prototype housing for a pesticide sampling device. Memorandum Report No. 6-89.

Gula, P.R., and G.E. Toms. 1989. Environmental testing of pesticide repellent clothing impregnated packages. Memorandum Report No. 7-89.

Gula, P.R., and G.E. Toms. 1989. Test and evaluation of five prototype combat load carts. Memorandum Report No. 8-89.

Hodge, J.W., and G.E. Toms. 1989. New lightweight surgical scrub sink test report. Memorandum Report No. 9-89.

Hodge, J.W., and G.E. Toms. 1989. Atropine sulfate suspension aerosol test report. Memorandum Report No. 10-89.

Gula, P.R. 1989. Low temperature testing of Velcro attachment strips. Memorandum Report No. 11-89.

Gula, P.R., and G.E. Toms. 1989. Reliability testing of the Monarch flash sterilizer manufactured by Vernitron. Memorandum Report No. 12-89.

Gula, P.R., G.E. Toms, and T.P. Nave. 1989. Sonimist ultrasonic spray nozzle. Memorandum Report No. 13-89.

Nave, T.P., and P.R. Gula. 1989. High and low temperature tests on two commercial centrifuges. Memorandum Report No. 14-89.

Hodge, J.W., and G.E. Toms. 1989. Decontaminating kit, skin: XM291 simulated air drop. Memorandum Report No. 15-89.

Burrows, W.D. 1989. Occupational health issues related to nitroglycerin exposure: protective gloves. Memorandum Report No. 16-89.

Carnevale, R.M., and W.D. Burrows. 1989. Optimum disinfection properties and commercially available disinfectants. Memorandum Report No. 17-89.

Nave, T.P., P.R. Gula, and G.E. Toms. 1989. Test and evaluation of two folding front line litters. Memorandum Report No. 18-89.

Hodge, J.W., and G.E. Toms. 1989. Decon kit (waterproof tape). Memorandum Report No. 19-89.

Extramural Study Reports/Publications:

Abbrecht, P. 1989. Hand and gas powered ventilators and cricothyrotomy devices for resuscitation of organophosphate casualties. In Proceedings of the tri-service pulmonary research review and analysis, 118. Denver, CO.

Ayers, W.M. 1989. Alternate sterilization process for heat labile goods. Final report, phase I, DAMD17-88C-8187. Rocky Hill, NJ: Electron Transfer Technologies, Incorporated.

Barr, R.W. 1989. Development of design parameters and conceptual drawing for a plasma etcher to clean and sterilize surgical instruments. Final report, phase I, DAMD17-88C-8190. Alexandria VA: Anatech LTD.

Falk, S.M. 1989. Noninvasive determination of core temperature. Final report, phase I, DAMD17-88C-8192. Columbia, MD: GMS Engineering.

Fischer, J.H. 1989. Noninvasive determination of core temperature. Final report, phase I, DAMD17-88C-8189. Salk Lake City, UT: Topical Testing Incorporated.

George, D.T. 1989. Fielding of portable oxygen generating systems for the treatment of battlefield casualties. In Proceedings of the tri-service pulmonary research review and analysis, 87. Denver, CO.

Kenneth, A. 1989. Surgical instrument decontamination unit. Final report, phase I, DAMD17-88C-8188. Pembroke, VA: The Abel Company.

Kingsley, C.P. 1989. Percutaneous cricothyrotomy for emergency airway management. In Proceedings of the tri-service pulmonary research review and analysis, 95. Denver, CO.

Kingsley, C. P. 1989. A status report on the evaluation of the drawover anesthesia devices. In Proceedings of the tri-service pulmonary research review and analysis, 102. Denver, CO.

Klebers, J., and D. Poltorak. 1989. EMP protection for Army field hospital power distribution cables. Final report, phase II, DAMD17-86C-6069. Vienna, Va: Jaycor.

Motz, J.W. 1989. A multi-mode x-ray imaging system with 1-sided CT capability. Final report, phase I, DAMD17-88C-8203. Rockville, MD: Rayer Corporation.

Olson, K.W. 1989. Evaluation of the GEM-9 blood gas/electrolyte analyzer. In Proceedings of the tri-service pulmonary research review and analysis, 109. Denver, CO.

Pommerrenig, D., and L. Lorton. 1989. Large area digital x-ray imaging system. Final report, phase I, DAMD17-88C-8191. Laguna Hills, CA: E-O Corporation.

Weinberg, B.C. 1989. Development of a multifrequency jet ventilator for use under battlefield conditions. In Proceedings of the tri-service pulmonary research review and analysis, 119. Denver, CO.

FY88

PUBLICATIONS: Health Effects Research Division

Open Literature Publications:

Bell, B.A., and W.D. Burrows. 1987. Biological Treatment of Explosive Bearing Wastewaters. In: Proceedings of 19th Mid-Atlantic Industrial Waste Conference, Lancaster, PA, pp. 13-24.

Bodek, I., W.J. Lyman, W.F. Reehl, and D.H. Rosenblatt, eds. 1988. Environmental Inorganic Chemistry: Processes. Properties and Estimation Methods, Pergamon Press, NY.

Burrows, E.P., and L.L. Szanfraniec. 1987. Hypochlorite-Promoted Transformations of Trichothecenes. 3. Deoxynivalenol. J. Nat. Prod. 50:1108-1112.

Burrows, W.D., and E.T. Paulson. 1987. Wastewater Treatment at an RDX/HMX Manufacturing Facility. In: Proceedings of 15th Environmental Symposium, American Defense Preparedness Association, Arlington, VA, pp. 117-121.

Crowell, J.A., R.M. Parker, T.J. Bucci, and J.C. Dacre. 1988. Neuropathy Target Esterase (NTE) in Chickens After Treatment with Isopropyl methylphosphonofluoridate (Sarin - Type I and II). The Toxicologist 8:50.

Daniels, J.I., D.W. Layton, M.A. Nelson, A.W. Olivieri, R.C. Cooper, R.E. Danielson, W.H. Bruvold, R. Scofield, D.P.H. Hsieh, and S.A. Schaub. 1988. Organoleptic Water Quality: Health and Economic Impacts. In: E.W. Montanari, T.P. Thompson, T.P. Curran, W. Saukin, eds. Proceedings, Resource Mobilization for Drinking Water and Sanitation in Developing Nations, American Society of Civil Engineers, San Juan, Puerto Rico, pp. 653-659.

Eaton, J.C., and J.Y. Young. 1988. The Effectiveness of the U.S. Military Protective Mask in Smoke. In: Proceedings of Smoke/Obscurants Symposium XII, Adelphia, MD.

Gardner, H.S., W.H. van der Schalie, and R.A. Finch. 1988. On-site Biological Monitoring and Hazard Assessment at Army Sites. In: Proceedings for the Thirteenth Annual Environmental Quality Research and Development Symposium, Report No. CETHA-TE-CR-89005, U.S. Army Toxic and Hazardous Material Agency, Aberdeen Proving Ground, MD, pp. 381-394.

Gardner, H.S., W.H. van der Schalie, K.L. Hoover, and R.A. Finch. 1987. The Use of Fish in Carcinogenicity Testing: Temperature Effects. Toxicology 47:207-208.

Mitchell, W.R. 1988. Degradation of Guanidinium Ion in Aerobic Soil Samples. Bull. Environ. Contam. and Toxicol. 39:974.

Pather, R.M., J.A. Crowell, T.J. Bucci, and J.C. Dacre. 1988. Negative Delayed Neuropathy Study in Chickens After Treatment with Isopropyl Methylphosphonofluoridate (Sarin - Type I). The Toxicologist 8:248.

Reddy, G., B.D. Cameron, and A.B. Wilson. 1987. Toxicokinetics of ^{14}C -HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine) in Rats and Mice after Oral Administration. In: Proceedings of 17th Conference on Toxicology, Fairborn, OH, pg. 44.

Reddy, G., J.A. Cuthbert, K.J. D'Arcy-Burt, S. Carr, and A.B. Wilson. 1988. Determination of Acute Mammalian Toxicity of HMX. In: Proceedings of Joint International Symposium on Compatibility of Plastics and Other Materials with Explosives, Propellants, Pyrotechnics and Processing of Explosives, Propellants and Ingredients, New Orleans, LA, pp. 252-259.

Sasser, L.B., R.A. Miller, J.A. Cushing, and J.C. Dacre. 1988. Subchronic Oral Toxicity Study of Sulfur Mustard in Rats. The Toxicologist 8:225.

Schaub, S.A. 1987. Round Robin Testing of Methods for Recovery of Enteric Viruses from Wastewater Sludges and Sewage Amended Soils - ASTM Consensus Standards Development. In: Proceedings of EPA Symposium on Chemical and Biological Characterization of Municipal Sludges, Dredge Spoils and Drilling Muds, Cincinnati, OH, pp. 265-272.

Schaub, S.A. 1987. Preventive Medicine Considerations for Army Individual Soldier Water Purification. In: Proceedings of International Disinfection Conference No. 4, SUNY, Binghamton, NY, pp. 110-114.

Schaub, S.A., and C.P. Gerba. 1987. Guide Standard and Protocol For Testing Microbiological Water Purifiers. In: Proceedings, Conference on Point-of-Use Treatment of Drinking Water, USEPA/600/9-898/012, Cincinnati, OH, pp. 37-43.

van der Schalie, W.H., T.R. Shedd, and M.G. Zeeman. 1988. Ventilatory and Movement Responses of Bluegills Exposed to 1,3,5-Trinitrobenzene. In: W.J. Adams, G.A. Chapman, and W.G. Landis, eds. Aquatic Toxicology and Hazard Assessment: Tenth Volume, ASTM STP 971, American Society for Testing and Materials, Philadelphia, PA, pp. 307-315.

van der Schalie, W.H., T.R. Shedd, and M.G. Zeeman. 1988. Ventilatory and Movement Responses of Rainbow Trout Exposed to 1,3,5-trinitrobenzene in an Automated Biomonitoring System. In: D. Gruber and J. Diamond, eds. Automated Biomonitoring: Living Sensors as Environmental Monitors, Ellis Horwood Ltd., West Essex, England, pp. 67-74.

In-House Publications:

Memorandum Reports

Allen, J.T. 1988. Investigative Data on L8A1 Smoke Grenade. Memorandum Report No. 15-88.

Technical Reports

Allen, J.T. 1988. Measurement of CO Using an Alveolar Breath Technique. Technical Report No. 8813. AD A217635.

Hoke, S.H., and M.L. Shih. 1987. Solid Phase Extraction for Concentration and Storage of Nerve Agents. Technical Report No. 8701. AD A190610.

Hoke, S.H., A.S. Beard, E.E. Brueggemann, and A.B. Rosencrance. 1988. Comparison of Particulate Lead Levels for Different Ammunition Types Used with the M16 Rifle. Technical Report No. 8803. AD A198478.

Roberts, W.C. 1986. Data Summary for Trinitrotoluene. Technical Report No. 8611. AD A199118.

Small, M.J. 1988. Residual Explosives Criteria for Treatment of Area P Soil, Louisiana Army Ammunition Plant. Technical Report No. 8807.

Extramural Study Reports/Publications:

Benignus, V.A., E.R. Kafer, K.E. Muller, and M.W. Case. 1987. Absence of Symptoms with Carboxyhemoglobin Levels of 16-23%. Neurotoxicol. Teratol. 9(5):234-348.

Benignus, V.A., K.E. Muller, C.N. Barton, and J.D. Prah. 1987. Effect of Low Level Carbon Monoxide on Compensatory Tracking and Event Monitoring. Neurotoxicol. Teratol. 9(3):227-234.

Brown, L.D., G.F.S. Hiatt, G.R. Wheeler, and D.W. Korte. 1988. Acute Oral Toxicity of Guanidine Nitrate in Mice. Institute Report No. 276. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Brown, D.G., T.P. Kellner, and D.W. Korte. 1987. Primary Eye Irritations of Guanidine Hydrochloride in Rabbits. Institute Report No. 240. Letterman Army Institute of Research, Presidio of San Francisco, CA. AD A184068.

Brown, L.D., C.R. Wheeler, and D.W. Korte. 1988. Acute Oral Toxicity of Nitroguanidine in Male and Female Rats. Institute Report No. 264. Letterman Army Institute of Research, Presidio of San Francisco, CA. AD A192694.

Cataldo, D.A., M.W. Ligothe, B.D. McVeety, H. Bolton, H. Shu-mei, W.L. Fellows, R.J. Fellows, and P. Van Voris. 1988. Wind Tunnel and Field Sampling, Characterization, Resuspension, and Environmental Behavior of Multi-Spectral Material. U.S. Army Smoke/Obscurant Symposium XII. Project Order 84PP4819, Pacific Northwest Laboratory, Richland, WA.

Cataldo, D.A., M.W. Ligothe, B.D. McVeety, H. Bolton, H. Shu-mei, W.L. Fellows, R.J. Fellows, and P. Van Voris. 1988. The Environmental Fate and Effects of Mixed Obscurant Smokes in Terrestrial Systems. U.S. Army Smoke/Obscurant Symposium XII. Project Order 84PP4819, Pacific Northwest Laboratory, Richland, WA.

Coppes, V.G., G.A. Orner, and D.W. Korte. 1988. Developmental Toxicity Potential of Nitroguanidine in Rats. Institute Report No. 257. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Dalbey, W., M. Henry, R. Holmberg, J. Moneyhun, R. Schmoyer, and S. Lock. 1987. Role of Exposure Parameters in Toxicity of Aerosolized Diesel Fuel in the Rat. Appl. Toxicol. 7(4):265-267.

Davidson, K.A., and P.S. Hovatter. 1987. Water Quality Criteria for Disperse Red 9. Final Report, APO 86PP6810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Davidson, K.A., and P.S. Hovatter. 1987. Water Quality Criteria for Colored Smokes: Solvent Yellow 33. Final Report, APO 86PP6810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD

Davidson, K.A., and P.S. Hovatter. 1987. Water Quality Criteria for Colored Smokes: Solvent Green 3. Final Report, APO 86PP6810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Davidson, K.A., and P.S. Hovatter. 1988. Water Quality Criteria for Colored Smokes: 1,4-Diamino-2,3-dihydroanthraquinone. Final Report, APO 86PP6810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Davidson, K.A., P.S. Hovatter, and R.H. Ross. 1988. Water Quality Criteria for Hexachloroethane. Final Report, APO 86PP6810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Environmental Protection Agency, Office of Drinking Water. 1987. Nitrocellulose: Health Advisory. U.S. Environmental Protection Agency, Washington, DC.

Environmental Protection Agency, Office of Drinking Water. 1987. Trinitroglycerol: Health Advisory. U.S. Environmental Protection Agency, Washington, DC.

Fisher, D.J., D.T. Burton, and R.L. Paulson. 1987. Toxicity of DEGDN, Synthetic-HC Smoke Combustion Products, Solvent Yellow 33 and Solvent Green 3 to Freshwater Aquatic Organisms. Final Report, Phase II, MIPR 85MM5505, Johns Hopkins University, Applied Physics Laboratory, Laurel, MD.

Goldman, M., A.K. Klein, T.G. Kawakami, and L.S. Rosenblatt. 1987. Toxicity Studies on Agents GB and GD. Final Report, APO 84PP4855, Laboratory for Energy-Related Health Research, University of California, Davis, CA. AD A187841.

Greist, W.H., R.A. Jenkins, B.A. Tomkins, J.H. Moneyhun, R.H. Ilgner, T.M. Gayle, C.E. Higgins, and M.R. Guerin. 1988. Sampling and Analysis of Diesel Engine Exhaust and the Motor Pool Workplace Atmosphere. Final Report, APO 84PP4867, Oak Ridge National Laboratory, Oak Ridge, TN.

Greist, W.H., M.R. Guerin, L.H. Smith, H.P. Witschi, C.E. Higgins, B.A. Tomkins, C.-H. Ho, and R.H. Ilgner. 1988. Synthetic and Alternate Fuels Characterization. Final Report, Project Order 81PP1813, Oak Ridge National Laboratory, Oak Ridge, TN.

Gupta, R.K., L.D. Witcher, V.O.M. Villa, and D.W. Korte. 1988. Mutagenic Potential of Nitroguanidine in the *Drosophila melanogaster* Sex-Linked Recessive Lethal Test. Institute Report No. 275. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Gyrd, G.D., L.T. Sniegowski, and E. White. 1987. Development of a Confirmatory Chemical Test for Exposure to 3-Quinuclidinyl Benzilate (BZ). Final Report, APO 85PP5836, The Center for Analytical Chemistry, National Measurement Laboratory, National Bureau of Standards, Gaithersburg, MD.

Hackett, P.L., R.L. Rommereim, F.G. Burton, R.L. Buschbom, and L.B. Sasser. 1987. Teratology Studies on Lewisite and Sulfur Mustard Agents: Effects of Sulfur Mustard in Rats and Rabbits. Final Report, APO 83PP3810, Battelle Pacific Northwest Laboratory, Richland, WA.

Hackett, P.L., L.B. Sasser, R.L. Rommercin, J.A. Cushing, R.L. Buochbom, and D.R. Kalkwarf. 1987. Teratology Studies of Lewisite and Sulfur Mustard Agents: Effects of Lewisite in Rats and Rabbits. Final Report, APO 83PP3810, Battelle Pacific Northwest Laboratory, Richland, WA.

Harbell, J.W., and D.W. Korte. 1987. Mutagenic Potential of Nitrosoguanidine in the Mouse Lymphoma Forward Mutation Assay. Institute Report No. 251. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Harbell, J.W., and D.W. Korte. 1987. Mutagenic Potential of Nitroguanidine in the Mouse Lymphoma Forward Mutation Assay. Institute Report No. 252. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Harbell, J.W., L.D. Witcher, and D.W. Korte. 1988. Sister Chromatid Exchange Assay of Nitroguanidine in Chinese Hamster Ovary Cells. Institute Report No. 273. Letterman Army Institute of Research, Presidio of San Francisco, CA. AD A189001.

Hiatt, G.F.S., E.W. Morgan, and D.W. Korte. 1988. Dermal Sensitization Potential of Guanidine Nitrate in Guinea Pigs. Institute Report No. 282. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Hiatt, G.F.S., S.K. Sano, C.R. Wheeler, and D.W. Korte. 1988. Acute Oral Toxicity of Nitroguanidine in Mice. Institute Report No. 265. Letterman Army Institute of Research, Presidio of San Francisco, CA. AD A194952.

Kalkwarf, D.R., R.C. Zanger, and D.L. Springer. 1987. Chemistry and Toxicology of Water Treated with Hypochlorite to Detoxify Chemical Agent VX. Final Report, APO 84PP4858, Battelle Pacific Northwest Laboratory, Richland, WA.

Kizakerich, P.N., and V.A. Benignus. 1987. Impedance Cardiography as a Vehicle for Continuous Non-invasive Estimation of Cardiopulmonary Variables in Exercise. APO 81PP1811, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Kong, L.I., L.J. Swango, B.L. Blagburn, C.M. Hendrix, D.E. Williams, and S.D. Worley. 1988. Inactivation of Giardia lamblia and Giardia canis Cysts by Combined and Free Chloride. Appl. and Environ. Microbiol. 54(10):2580-2582.

LeTellier, Y.C., J.W. Bauserman, and D.W. Korte. 1988. Primary Dermal Irritation Potential of Guanidine Nitrate in Rabbits. Institute Report No. 280. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Lewis, C., C.V. Okerberg, and D.W. Korte. 1988. Acute Dermal Toxicity of Nitroguanidine in Rabbits. Institute Report No. 254. Letterman Army Institute of Research, Presidio of San Francisco, CA.

McCone, J.E., L.B. Gratt, M.J. Lyon, and B.W. Perry. 1987. GEOTOX Multimedia Compartmental Model User's Guide. UCRL-1591B. Final Report (partial), Purchase Order 83PP3818, Lawrence Livermore National Laboratory, Livermore, CA. AD A199158.

Moneyhun, J.H., T.M. Gayle, and R.A. Jenkins. 1988. A Laboratory Scale Liquid/Solid Smoke Generator to Simulate the XM55 Field System. Paper No. A-2.12, U.S. Army Smoke/Obscurants Symposium XII, Johns Hopkins University, Laurel, MD, 19-21 April 1988.

Moore, M.M., J.W. Allen, L. Claxton, C. Doerr, C. Gwaltney, J.S. Dutcher, M. Kohan, B.K. Lawrence, R. Templeton, and B. Westbrook-Collins. 1988. Mutagenic Screening of Marker Grenade Dyes by the Salmonella Reversion Assay, L5178Y/TK⁺ Mouse Lymphoma Assay and In Vivo Sister Chromatid Exchange Analysis in Mice. Environ. Mol. Mutagen. 12(2):219-233.

Morgan, E.W., L.D. Brown, C.M. Lewis, R.R. Dahlgren, and D.W. Korte. 1988. Fourteen-Day Subchronic Oral Toxicity Study of Nitroguanidine in Rats. Institute Report No. 272. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Morgan, E.W., G.F.S. Hiatt, and D.W. Korte. 1988. Dermal Sensitization Potential of Nitroguanidine in Guinea Pigs. Institute Report No. 263. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Mullen, L., E.W. Morgan, C.M. Lewis, G.R. Wheeler, and D.W. Korte. 1988. Acute Oral Toxicity of Guanidine Nitrate in Rats. Institute Report No. 267. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Muller, K.E., and C.N. Barton. 1987. A Nonlinear Version of the Coburn, Forster and Kane Model of Blood Carboxyhemoglobin. Atmos. Environ. 21(9):1963-1967.

Murli, H., and D.R. Jagannath. 1988. Mutagenicity Test on DMSO Pilot Plant Samples (DMSO Recycled Solvent #1; DMSO Evaporation Sludge #1) in the Ames Salmonella/Microsome Reverse Mutation Assay and in an In Vitro Cytogenic Assay Measuring Sister Chromatid Exchange Frequencies in Chinese Hamster Ovary (CHO) Cells. Final Report, Contract DAMD17-88-M-4417, Hazleton Laboratories America, Inc., Kensington, MD.

Novak, E.W., L.G. Lave, J.J. Stukel, and D.J. Schaeffer. 1987. A Revised Health Risk Assessment for the Use of Hexachloroethane Smoke on an Army Training Area. Technical Report No. N-87/26. APO 84PP4870, U.S. Army Construction Engineering Research Laboratory, Champaign, IL.

Opresko, D.M. 1987. Review of Methodologies Used for Establishing Occupational Health Criteria with Particular Reference to Chemical Agents. Final Report, APO 86PP6838, Oak Ridge National Laboratory, Biology Division, Oak Ridge, TN.

Orner, G.A., D.F. Brown, and D.W. Korte, Jr. 1988. Circulatory and Hematological Effects of Liquid Propellant 1846 Following Oral Administration to Rats. Institute Report No. 270. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Ross, R.H., B.C. Pal, R.S. Ramsey, R.A. Jenkins, S. Lock, W.H. Griest, and M.R. Guerin. 1988. Problem Definition Study on Techniques and Methodologies for Evaluating the Chemical and Toxicological Properties of Combustion Products of Gun Systems, Vol. 1. APO 85PP5840, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Sano, S.K., and D.W. Korte. 1988. Acute Dermal Toxicity Potential of Guanidine Nitrate in Male and Female Rabbits. Institute Report No. 281. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Schieferstein, G.J., W.G. Shelton, S.A. Cantrell, and G. Reddy. 1988. Subchronic Toxicity Study of 1,4-Dithiane in the CD Rat. Fundam. Appl. Toxicol. 11:703-714.

Sebastian, S.E., and D.W. Korte. 1988. Mutagenic Potential of Nitroguanidine in the Ames salmonella Nitrosoguanidine Mammalian Microsome Mutagenicity test. Institute Report No. 259. Letterman Army Institute of Research, Presidio of San Francisco, CA. AD A193263.

Sebastian, S.E., and D.W. Korte. 1988. Mutagenic Potential of Nitroguanidine in the Ames salmonella Nitroguanidine Mammalian Microsome Mutagenicity Test. Institute Report No. 260. Letterman Army Institute of Research. Presidio of San Francisco, CA. AD A193264.

Snipes, M.B., D.E. Bice, E.G. Damon, A.F. Eidson, F.F. Hahn, J.R. Harkema, A.G. Harmsen, R.F. Henderson, J.L. Mauderly, J.A. Pickrell, F.A. Seiler, and H.C. Yeh. 1988. Comparative Inhalation Toxicology of Selected Materials. Final Report, Phase III, APO 85PP5805, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Sterner, R.T., S.A. Shumake, B.E. Johns, and R.D. Thompson. 1987. Inhalation Equipment Development/Ambient CO Evaluation/Aerosol Distribution and Air Quality Study. Final Report, Task I, APO 85PP5847, U.S. Department of Agriculture, Denver Wildlife Research Center, Denver, CO .

Swango, L.J., G.R. Wilt, A.D. Killen, D.E. Williams, and S.D. Worley. 1987. Inactivation of Legionella pneumophila by Hypochlorite and an Organic Chloramine. Appl. Environ. Microbiol. 53:3983-3986.

Tillotson, J.A., L.C. Kincannon, P.B. Simbori, and D.W. Korte. 1988. The Fate of Nitroguanidine in the Rat. Fundam. Appl. Toxicol. 10:453-458.

Van Voris, P., D.A. Cataldo, M.W. Ligothke, T.R. Garland, K.M. McFadden, J.K. Fredrickson, W.L. Shu-mei, and R.M. Bean. 1987. Mechanisms Controlling Transport, Fate and Effects of Army Smokes in the Aerosol Wind Tunnel. Project Order 84PP4819, Pacific Northwest Laboratory, Richland, WA.

Williams, D.E., E.D. Edler, and S.D. Worley. 1988. Is Free Halogen Necessary for Disinfection? Appl. and Environ. Microbiol. 54(10):2583-2585.

Worley, S.D., and D.E. Williams. 1988. Disinfecting Water with a mixture of Free Chlorine and an Organic N-Halamine. J. Amer. Water Works Assn., pp. 69-71.

Worley, S.D., and D.E. Williams. 1988. Halamine Water Disinfectants. CRC Crit. Rev. Environ. Control 18(2):133-175.

PUBLICATIONS: Field Medical Materiel Development Division

Open Literature Publications:

Boobar, L.R. 1988. Current and Developmental Arthropod Control Equipment. In: Proceedings of U.S. Army Medical Department Biennial Medical Entomology Training Course, San Antonio, TX, p. 57.

Boobar, L.R. 1988. Current and Developmental Survey Equipment. In: Proceedings of U.S. Army Medical Department Biennial Medical Entomology Training Course, San Antonio, TX, p. 63.

Bunner, B.L., R.W. Wannemacher, Jr., R.E. Dinterman, and F.H. Broski. 1988. Dermal Decontamination of [³H]T-2 Mycotoxin in Rats. TOXICON 26:17.

Bunner, B.L., R.W. Wannemacher, Jr., R.E. Dinterman, and F.H. Broski. 1987. Dermal Decontamination of [³H]T-2 Mycotoxin in Rats. In: P. Gopalakrishnakone and C.K. Tan, eds. Progress in Venom and Toxin Research, National University of Singapore, Singapore, pp. 732-738.

Darby, W.M., L.R. Boobar, and L.M. Anderson. 1988. An Improved Power Duster for Mass Delousing of Humans. J. Med. Entomol. 25(1):69-70.

Misch, D.W., M.J. Perich, and L.M. Anderson. 1987. A Simplified Technique for Partial Purification and Handling of B.t.i. Toxin for Biochemical and Bioassay Procedures. In: Proceedings of 20th Annual Meeting of the Society of Invertebrate Pathology, Gainesville, FL, 5 pp.

Perich, M.J., J.T. Rogers, and L.R. Boobar. 1987. Efficacy of Arosurf MSF and Formulations of Bacillus thuringiensis var. israelensis against Anopheles albimanus: Laboratory bioassay. J. Am. Mosquito Control Assoc. 3:485-488.

Perich, M.J., J.T. Rogers, L.R. Boobar, and J.H. Nelson. 1988. Laboratory Evaluation of Formulations of Bacillus thuringiensis var. israelensis combined with Methoprene or a Monomolecular Surface Film Against Anopheles albimanus and An. stephensi. J. Am. Mosquito Control Assoc. 4:198-199.

Solberg, V.B., B.L. Bunner, F.H. Broski, J.A. Madson, R.E. Dinterman, D.T. George, and G.B. Gouthals. 1988. Evaluation of Field Dressing, Activated Charcoal Dressing, and Betadine Swabbing on [³H]T-2 Mycotoxin Contaminated Wounds in Rats. The FASEB J. 2:A1351.

Strzelecki, L.R., G.M. Graeber, and F.H. Broski. 1988. Comparison of Demand Oxygen Controller and Continuous Flow Oxygen in an Intubated Model. Chest 94:1.

Vorgetts, J., Jr., R.L. Frommer, P.H. Gibbs, and L.M. Anderson. 1988. Interpretation of Density Dependent Data in Comparisons of Bacillus thuringiensis var. israelensis Formulations. J. Entomol. Sci. 23:149-154.

In-House Publications:

Technical Test/Memorandum Reports

Gula, P.R. 1987. Blood Pressure Monitors. Technical Test Report No. 17-87.

Gula, P.R. 1987. Aerosol Generator, C-D. Technical Test Report No. 18-87.

Hodge, J.W. 1987. Strap, Patient, Chemical Warfare. Technical Test Report No. 19-87.

Gula, P.R., and G.E. Toms. 1988. Blood Gas Analyzer. Technical Test Report No. 2-88.

Gula, P.R., and G.E. Toms. 1988. Larvicide Pesticide Dispersal Unit. Technical Test Report No. 3-88.

Gula, P.R., and G.E. Toms. 1988. Blood Box, Transport. Technical Test Report No. 4-88.

Hodge, J.W., and G.E. Toms. 1988. Defibrillator. Technical Test Report 5-88.

Hodge, J.W. 1988. Patient Restraining Strap. Technical Test Report No. 6-88.

Hodge, J.W. 1988. Nylon Handles, Strength. Technical Test Report No. 7-88.

Hodge, J.W., and G.E. Toms. 1988. Nylon Handles, Cyclic. Technical Test Report No. 8-88.

Gula, P.R., G.E. Toms, and T.P. Greene. 1988. Surgical Tape. Technical Test Report No. 9-88.

Gula, P.R., G.E. Toms, and T.P. Greene. 1988. Aerosol Generator, 2952. Technical Test Report No. 11-88.

Hodge, J.W., and T.P. Greene. 1988. Infusion Devices. Technical Test Report No. 13-88.

Hodge, J.W., and T.P. Greene. 1988. Defibrillator. Technical Test Report No. 14-88.

Nave, T.P. 1988. Droplet Size Programs. Technical Test Report No. 16-88.

Hodge, J.W. 1988. Litter Cover, Abrasion. Technical Test Report No. 17-88.

Gula, P.R., and T.P. Nave. 1988. Whispermist-10, Pesticide Dispersal Unit. Technical Test Report No. 19-88.

Hodge, J.W., G.E. Toms, and T.P. Greene. 1988. Powered Ventilators. Technical Test Report No. 20-88.

Emery, H.C. 1988. Front End Analysis of Research Tasks for the Chemical Defense Materiel Branch, USABRDL. Memorandum Report No. 21-88.

Gula, P.R., T.P. Greene, and G.E. Toms. 1988. Micro-Gen E44 Pesticide Dispersal Unit. Technical Test Report No. 22-88.

Technical Reports

Burrows, W.D., and D.L. George. 1988. Technology Assessment for the Advanced Life Detector. Technical Report No. 8802. AD A191382.

Dubill, P.M. 1987. Technical Feasibility Testing of Medical Materiel: Evaluation of Drawover Vaporizers. Technical Report No. 8702. AD A190912.

Dubill, P.M. 1988. Use of Electrical Impedance Characteristics to Assess Frostbite Injury Severity. Technical Report No. 8811. AD A201453.

Dubill, P.M., J.W. Hodge, Jr., P.R. Gula, and G.E. Toms, Jr. 1988. Technical Feasibility Testing of Medical Materiel: Evaluation of a Commercial Blood Gas Analyzer. Technical Report No. 8801. AD A191381.

Strzelecki, L.R., G.M. Graeber, and F.R. Broski. 1988. Technical Feasibility Testing of Medical Materiel: Evaluation of the Demand Oxygen Controller (DOC) versus Continuous Flow of Oxygen in Anesthetized Pigs. Technical Report No. 8809.

FY87

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Boobar, L.R. and M.R. Sardelis. 1987. Pesticide dispersal Unit (PDU), Multicapability, Helicopter Slung. In: Proceedings of 32nd Annual Meeting of the Northeastern Mosquito Control Association, Sturbridge, MA, pp. 152-158.

Boobar, L.R., M.R. Sardelis, J.H. Nelson, and W.M. Brown, III. 1987. A New Type of Collapsible Insect-Surveillance Light Trap for Sampling Diptera. Med. Vet. Entom. 1:215-218.

Bunner, B.L., L.R. Boobar, L.J. Vorgetts, and F.H. Broski. 1987. Increased Toxicity of Malathion Diluted with Heavy Aromatic Naphtha on Adult *Aedes taeniorhynchus*. J. Am. Mosquito Control Assoc. 3:87-89.

Bunner, B.L., R.W. Wannemacher, Jr., L.R. Boobar, R.E. Dinterman, and F.H. Broski. 1987. Chemical/Toxin Dermal Decontamination Equipment using Soap and Water Spray. In: Proceedings of Sixth Medical Chemical Defense Bioscience Review, Columbia, MD, pp. 511-514.

Burrows, E.P., and L.L. Szafraniec. 1986. Hypochlorite-Promoted Transformations of Trichothecenes. 3. Deoxynivalenol. J. Nat. Prod. 50:1108-1112.

Burrows, E.P., and L.L. Szafraniec. 1986. Hypochlorite-Promoted Transformations of Trichothecenes. Deoxynivalenol. In: Proceedings of the 1986 U.S. Army Chemical Research, Development, and Engineering Center Scientific Conference on Chemical Defense Research, Aberdeen Proving Ground, MD, pp. 993-998.

Darby, W.M., L.R. Boobar, B.L. Bunner, and J.H. Nelson. 1987. A New Pediculicide Application System for Mass Human Delousing: Analysis of Operational Characteristics and Limitations. In: Pesticide Formulations and Application Systems. Seventh Symposium, ASTM STP 968, G.B. Beestman, and D.I.B. Vander Hooven, eds. American Society for Testing and Materials, Philadelphia, PA, pp. 189-196.

Dobson, S.E., L.R. Boobar, W.D. Royer, and B.L. Bunner. 1987. A Device for Restraining Rabbits While Bloodfeeding. Lab. Anim. Sci. 37:364-365.

Gardner, H.S., W.H. van der Schalie, K.L. Hoover, and R.A. Finch. 1987. The use of fish in carcinogenicity testing: Temperature effects. Toxicology 47:207-208.

Hoke, S.H., S.M. Carley, E.T. Johnson, and F.H. Broski. 1987. The Use of Solid Phase Extraction Systems to Improve the Sensitivity of Artemia Bioassays for Trichothecene Mycotoxins. J. Assoc. Off. Anal. Chem. 70:661-663.

Misch, D.W., L.M. Anderson, and L.R. Boobar. 1987. The Relative Toxicity of a Spore Preparation of Bacillus thuringiensis var. israelensis Against Fourth Instar Aedes aegypti and Toxorhynchites amboinensis Suspension Feeding Compared with Enemas and Forced Feeding. Entomol. Exp. Appl. 44:151-154.

Mitchell, W.R. 1987. Microbial Degradation of Guanidinium Ion. Chemosphere 16:1071-1086.

Perich, M.J., R.E. Wright, and R.W. McNew. 1987. Estimating the Number of Tabanidae Feeding on Cattle. J. Agric. Entomol. 3:335-341.

Rosenblatt, D.H., W.R. Hartley, and E.Y. Williams, Jr. 1986. The Preliminary Pollutant Limit Value Concept. J. Mil. Med. 151:645-647.

Vorgetts, L.J., J.H. Nelson, and L.M. Anderson. 1986. Effect of Homogenization on Preparations of Bacillus thuringiensis var. israelensis. Bull. Entomol. Soc. Am. 32:255-256.

In-House Publications:

Technical Reports

Burrows, E.P., and L.L. Szafraniec. 1986. Chemical Transformation of Trichothecenes. Nuclear Magnetic Resonance (NMR) and Mass Spectroscopic Characterization of Transformation Products of Verrucarol. Technical Report 8608. AD A175993.

Burrows, W.D., and E.E. Brueggemann. 1986. Tertiary Treatment of Effluent from Holston AAP Industrial Waste Treatment Facility. V. Degradation of Nitramines in Holston AAP Wastewaters by Ultraviolet Radiation. Technical Report 8602. AD A176195.

Burrows, W.D., and M.O. Schmidt. 1986. Biological Treatment of Composition B Wastewaters. I. Rotating Biological Contractor. Technical Report 8606. AD A180738.

Dacre, J.C. 1986. Drinking Water Criteria for the Groundwater Pollutant Diisopropyl Methylphosphonate (DIMP). Technical Report 8610. AD A186562.

Hanson, K.L. 1986. Modification of Surgical Scrub Sink, NSN 6545-01117-3894. Technical Report 8612. AD A172819.

Kulkarni, R.K. 1986. Pollutant Adsorbent Systems for TNT, RDX, and HMX. Technical Report 8605. AD A188407.

Roberts, W.C. 1986. Data of Summary for Nitrocellulose. Technical Report 8609. AD A186413.

Technical Test Reports

Hodge, J., and G. Toms. 1986. Refrigerator, Field. Technical Test Report 22-86.

Gula, P., and J. Shankle. 1986. Trap, Mosquito (Solid State Army Miniature). Technical Test Report 23-86.

Gula, P., and J. Shankle. 1986. Ultra Low Volume Aerosol Generator, Minimist. Technical Test Report 24-86.

Hodge, J., and G. Toms. 1986. Wheeled Gurney. Technical Test Report 25-86.

Hodge, J., and G. Toms. 1986. Heater Unit, Casualty Evacuation. Technical Test Report 26-86.

Hodge, J., and G. Toms. 1987. Commode, Field. Technical Test Report 1-87.

Gula, P., and J. Shankle. 1987. Mass Delouser. Technical Test Report 2-87.

Hodge, J., and G. Toms. 1987. Israeli Pressure Infusion Device. Technical Test Report 3-87.

Gula, P., and G. Toms. 1987. Chemical Warfare Field Litter. Technical Test Report 4-87.

Gula, P., and J. Shankle. 1987. Pesticide Dusters. Technical Test Report 6-87.

Hodge, J., and G. Toms. 1987. Autoinjector, Duphar. Technical Test Report 7-87.

Gula, P., and J. Shankle. 1987. Ultra Low Volume Fog Generator, LECO. Technical Test Report 8-87.

Hodge, J., and G. Toms. 1987. Autoinjector, Poutrait-Mourin. Technical Test Report 9-87.

Hodge, J., and G. Toms. 1987. Autoinjector, Combopen. Technical Test Report 10-87.

Hodge, J., and G. Toms. 1987. Refrigerator, Field. Technical Test Report 11-87.

Gula, P., and J. Shankle. 1987. Two-Gallon Sprayer. Technical Test Report 12-87.

Gula, P., and J. Shankle. 1987. One-Gallon Sprayer. Technical Test Report 13-87.

Hodge, J., and G. Toms. 1987. Draw Over Vaporizers. Technical Test Report 14-87.

Hodge, J., and G. Toms. 1987. Refrigerator, Field (Standard). Technical Test Report 15-87.

Hodge, J., and G. Toms. 1987. Blood Simulant Evaluation. Technical Test Report 16-87.

Extramural Study Reports/Publications:

Aranyi, C. 1986. Research and Development on Inhalation Toxicological Evaluation of Red Phosphorus/Butyl Rubber Combustion Products. Final Report (Phase IV), Contract DAMD17-82-C-2121, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Barnela, S.B., S.D. Worley, and D.E. Williams. 1987. Syntheses and Antibacterial Activity of New N-Halamine Compounds. J. Pharm. Sci. 76(3):245-247.

Bates, H.K. and J.B. LaBorde. 1987. Developmental Toxicity Evaluation of Soman in CD Rats. The Toxicologist 7(1):174 (Abstract 695).

Benignus, V.A., K.E. Muller, E.R. Kafer, K.S. Pieper, and M.V. Smith. 1987. Lack of Effects of High Level Carboxyhemoglobin on Compensatory Tracking and EEG: Protocol 3. Final Report, APO 81PP1812, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Biesinger, K.E., L.R. Williams, and W.H. van der Schalie. 1987. Procedures for Conducting Daphnia magna Toxicity Bioassays. EPA/600/8-87/011. Environmental Monitoring Systems Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, NV.

Brown, L.D., T.P. Kellner, and D.W. Korte. 1987. Primary Eye Irritation of Guanidine Hydrochloride in Rabbits. Institute Report No. 240. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Elder, E.D., S.D. Worley, and D.E. Williams. 1987. Bactericidal Properties of an Organic N-Chloramine Formed In Situ. J. Appl. Bact. 62:457-464.

Elder, E.D., S.D. Worley, and D.E. Williams. 1987. pH dependence of the in situ formation of an organic N-chloramine water disinfectant. J. of Indsut. Microbiol. 2:229-234.

Environmental Protection Agency Office of Drinking Water. 1987. Expert Support on Health Effects of Munitions Chemicals. EPA Report, Health Advisory on Trinitroglycerol (Nitroglycerin), Washington, DC.

Environmental Protection Agency Office of Drinking Water. 1987. Expert Support on Health Effects of Munitions Chemicals. EPA Report, Health Advisory on Nitrocellulose, Washington, DC.

Fisher, D.J., D.T. Burton, and R.L. Paulson. 1987. Toxicity of DEGDN, Synthetic-HC Smoke Combustion Products, Solvent Yellow 33 and Solvent Green 3 to Freshwater Aquatic Organisms. PO 85MM5505, Johns Hopkins University, Applied Physics Laboratory, Laurel, MD.

Grose, E.C., M.J. Selgrade, D.W. Davies, and A.G. Stead. 1986. Inhalation Toxicology of Fog Oil Smoke. Final Report, APO 81PP1810, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Grose, E.C., and J.A. Graham. 1987. Short-Term In-Vitro Screening Studies Related to the Inhalation of Potentially Toxic Aerosols. Final Report, APO 84PP4850, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Henderson, R.F., A.L. Brooks and R.L. Hanson. 1986. Genotoxicity of Dyes Present in Colored Smoke Munitions. Final Report, APO 85PP5801, U.S. Army Medical Research and Development Command, Fort Detrick, Frederick, MD.

Layton, D.W., T.E. McKone, C.H. Hall, M.A. Nelson, and Y.E. Ricker. 1986. Demilitarization of Conventional Ordnance: Priorities for Data-Base Assessments of Environmental Contaminants. Phase I Report, PO 83PP3818. UCRL-15902. Lawrence Livermore National Laboratory, Livermore, CA. AD A182922.

Layton, D.W., B.J. Mallon, D.H. Rosenblatt, and M.J. Small. 1987. Deriving Allowable Daily Intakes for Systemic Toxicants Lacking Chronic Toxicity Data. Regulatory Toxicology and Pharmacology 7:96-112.

Morgan, D.L., V.E. Steele, J.E. Humphreys, and G.E. Hatch. 1987. Nasal Epithelial Cell Cadmium Toxicity Data for Extrapolation from In-vitro to In-vivo. The Toxicologist 7:194.

Morgan, E.W., and D.W. Korte. 1986. Primary Dermal Irritation Potential of Trimethylolethane Trinitrate (TMETN) in Rabbits. Institute Report No. 224. Letterman Army Institute of Research, Presidio of San Francisco,

Morgan, E.W., J.R.G. Ryabuk, and D.W. Korte. 1987. Dermal Sensitization Potential of Ball Powder in Guinea Pigs. Institute Report No. 238. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Schieferstein, G.J., G. Reddy, W.G. Sheldon, and S.A. Cantrell. 1987. Subchronic Toxicity Study of 1,4-Dithiane in the C.D. rat. The Toxicologist 7:20.

Schieferstein, G.J., W.G. Sheldon, S.A. Cantrell. 1987. Subchronic Toxicity on 1,4-Dithiane. Final Report, National Center for Toxicological Research, Jefferson, AZ.

Shinn, J.H., S.A. Martings, P.L. Cederwall, and L.B. Gratt. 1987. Smokes and Obscurants: A Health and Environmental Effects Data Base Assessment. Phase I Report, PO 83PP3819. UCID-20931. Lawrence Livermore National Laboratory, Livermore, CA.

Simbioli, P.B., B. Ho, and D.W. Korte. 1987. The Metabolism of Nitroguanidine and Nitrosoguanidine by Rat Reported Subcellular Fractions. Laboratory Note No. 87-70. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Stewart, D.L. 1987. Mutagenicity Study of Sulfur Mustard in the Salmonella Histidine Reversion Test. Environmental Mutagenesis 9(8):103-106 (Abstract 269).

Sun, J.D., R.F. Henderson, T.C. Marshall, Y.S. Cheng, J.S. Dutcher, J.A. Pickrell, J.L. Mauderly, F.F. Hahn, D.A. Banas, F.A. Seiler, and C.H. Hobbs. 1987. The Inhalation Toxicity of Two Commercial Dyes: Solvent Yellow 33 and Solvent Green 3. Fundamental and Appl. Toxicol. 8:358-371.

Van Voris, P., M.W. Ligotke, K.M. McFadden, S.W. Li, B.L. Thomas, D.A. Cataldo, T.R. Garland, J.K. Fredrickson, R.M. Bean, and D.W. Carlile. 1987. Transport, Transformations, Fate, and Terrestrial Ecological Effects of Red Phosphorus-Butyl Rubber and White Phosphorus Obscurant Smokes. PO 84PP4819, Pacific Northwest Laboratory, Richland, WA.

Wentzel, R.S., and M.A. Guelta. 1987. The Toxicity of Multispectral Strands in Soil to Earthworms. PO 85PP586, U.S. Army Chemical Research, Development and Engineering Center, Aberdeen Proving Ground, MD.

Williams, L.R., K.E. Biesinger, and W.H. van der Schalie. 1986. Collaborative Study of Daphnia Magna Renewal Assays. EPA/600/X-86/115. Environmental Monitoring Systems Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Las Vegas, NV.

Williams, D.E., S.D. Worley, S.B. Barnela, and L.J. Swango. 1987. The Bactericidal Activities of Selected Organic N-Halamines. Appl. Environ. Microbiol. 53(9):2082-2089.

Worley, S.D., D.E. Williams, S.B. Barnela, E.D. Elder, L.J. Swango, and L. Kong. 1987. New Halamine Water Disinfectants. Proc. Conf. Chem. Disinf. 3:61-79.

Worley, S.D., D.E. Williams, and S.B. Barnela. 1987. The Stabilities of New N-Halamine Water Disinfectants. Water Res. 21(8):983-988.

Worley, S.D., D.E. Williams, S.B. Barnela, and L.J. Swango. 1988. New Halamine Water Disinfectants. Water Chlorination Chemical Environmental Impact and Health Effects, Vol 6., pp. 271-288.

FY86

**PUBLICATIONS: Health Effects Research Division/Field Medical Materiel
Development Division**

Open Literature Publications:

Boobar, L.R., J.H. Nelson, L.M. Anderson, and M.R. Sardelis. 1986. A Basic Program for Analysis of Droplet Size Distribution In Insectide Sprays. J. Am. Mosquito Control Assoc. 2:229-231.

Boobar, L.R., L.J. Vorgetts, L.M. Anderson, and J.H. Nelson. 1986. An Efficient Method for Transferring Adult Mosquitoes During Field Tests. J. Am. Mosquito Control Assoc. 1:533-535.

Burrows, E.P., and E.E. Brueggemann. 1985. Reversed Phase Gradient High Performance Liquid Chromatography of Nitramine Munitions and Characterization of Munitions Process Samples by Gas Chromatography/Mass Spectrometry. J. Chromatogr. 329:285-289.

Burrows, E.P., and L.L. Szafraniec. 1986. Hypochlorite-Promoted Transformations of Trichothecenes. 1. Verrucarol. J. Org. Chem. 51:1494-1497.

Burrows, E.P., and L.L. Szafraniec. 1986. Hypochlorite-Promoted Transformations of Trichothecenes. 2. Fragmentation-Rearrangement of the Primary Product from Verrucarol. J. Org. Chem. 51:4706-4708.

Hoke, S.H., E.E. Brueggemann, L.J. Baxter, and T. Trybus. 1986. Determination of Phenoxy Acid Herbicides Using Solid Phase Extraction and High Performance Liquid Chromatography. J. Chromatogr. 357:429-432.

Miller, T.A., Cooper, W.J., and J.W. Highfill. 1986. Susceptibility of Eggs and First Instar Larvae of Callosamia promethea and Antheraea polyphemus to Malathion. J. Res. Lepid. 25(1):48-51.

Misch, D.W., L.M. Anderson. 1986. A Technique and Apparatus for Placement of Test Substances Into the Intestines of Mosquito Larvae. Entomol. Exp. Appl. 41:179-183.

Pace, J.G., M.R. Watts, E.P. Burrows, R.E. Dinterman, C. Matson, E.C. Hauer, and R.W. Wannemacher, Jr. 1985. Fate and Distribution of Tritium-Labeled T-2 Mycotoxin In Guinea Pigs. Toxicol. Appl. Pharmacol. 80:377-385.

van der Schalie, W.H. 1986. Can Biological Monitoring Early Warning Systems be Useful In Protecting Aquatic Ecosystems from Toxic Effluents? In: Proceedings of Aquatic Toxicology and Environmental Fate: Ninth Symposium. American Society for Testing and Materials Committee E-47 (Biological Effects and Environmental Fate), Philadelphia, PA, pp. 107-121.

Vorgetts, L.J. 1985. Factors Influencing Amplification of *Bacillus thuringiensis* (Serotype H-14) Endotoxin in *Aedes aegypti* Larvae. In: Proceedings, 72nd Annual Meeting, New Jersey Mosquito Control Association, Atlantic City, NJ.

Vorgetts, L.J., and M.D. Buescher. 1985. Effects of Microencapsulation on the Persistence of *Bacillus thuringiensis* (Serotype H-14). In: Proceedings, 72nd Annual Meeting, New Jersey Mosquito Control Association, Atlantic City, NJ.

Williams, L.R., K. Biesinger, and W. van der Schalie. 1986. Collaborative Study of *Daphnia magna* Static Renewal Assays. EPA/600/X86/115. U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Las Vegas, NV.

In-House Publications:

Technical Reports

Bausum, H.T., and G.W. Taylor. 1986. A Literature Survey and Data Base Assessment: Microbial Fate of Diesel Fuel and Fog Oils. Technical Report 8408. AD A167799.

Brueggemann, E.E. 1986. Liquid Chromatographic Determination of Explosives and Polynuclear Aromatic Hydrocarbons (PAHs) In Deactivation Furnace Ash. Technical Report 8604. AD A171269.

Burrows, E.P. 1985. Characterization of Trace Organics from Deactivation Furnace Ash by Gas Chromatography/Mass Spectrometry (GC/MS). Technical Report 8503. AD B097558L.

Duncan, J.B. 1985. The Field Production of Water for Injection. Technical Report 8502. AD A168146.

Hanson, K.L. 1986. Modification of Surgical Scrub Skin (NSN 6545-01-117-3894). Technical Report 8612. AD A172819.

Kulkarni, R.K., and A.B. Rosencrance. 1986. Safety and Health Hazards of Disposal of Lithium Thionyl Chloride Batteries In Sanitary Landfills. Technical Report 8507. AD B104335L.

Mitchell, W.R. 1985. Biodegradation of Guanidinium by Aquatic Microorganisms. Technical Report 8506. AD A164728.

Rhodes, C.T. 1986. Technical Feasibility Field (User) Test for Heater Unit, Patient Holding and Evacuation. AD B103835.

Roberts, W.C. 1986. Data Summary for Trinitrotoluene. Technical Report 8611. AD A199118.

Rosenblatt, D.H. 1986. Contaminated Soil Cleanup Objectives for Cornhusker Army Ammunition Plant. Technical Report 8603. AD A169179.

Rosencrance, A.B., and E.E. Brueggemann. 1986. Liquid and Gas Chromatographic Determination of 1,3,5-Trinitrobenzene In Water. Technical Report 8601. AD A167746.

Shedd, T.R., W.H. van der Schalie, and M.G. Zeeman. 1986. Evaluation of an Automated Fish Ventilatory Monitoring System In a Short Term Screening Test for Chronic Toxicity. Technical Report 8505. AD A172116.

Memorandum Reports

Hodge, J., and G. Toms. 1985. MK-II Autoinjector. Memorandum Report 10-85.

Hodge, J. 1986. Rubber Channel Seals, Effect of DS-2. Memorandum Report 1-86.

Hodge, J. 1986. Pouch Loop (RDIC). Memorandum Report 2-86.

Hodge, J., and G. Toms. 1986. Carrier, Casualty (FPSU). Memorandum Report 3-86.

Hodge, J., and G. Toms. 1986. Backrest (FPSU). Memorandum Report 4-86.

Hodge, J., and G. Toms. 1986. Operating Table (FPSU). Memorandum Report 5-86.

Hodge, J., and G. Toms. 1986. Surgical Light (FPSU). Memorandum Report 6-86.

Hodge, J., and G. Toms. 1986. Generator, Electric (FPSU). Memorandum Report 7-86.

Hodge, J., and G. Toms. 1986. Sterilizer (FPSU). Memorandum Report 8-86.

Hodge, J., and G. Toms. 1986. Aspirator, Mechanical (FPSU). Memorandum Report 9-86.

Hodge, J., and G. Toms. 1986. Heater, Pulsed Air (FPSU). Memorandum Report 10-86.

Hodge, J., and J. Shankle. 1986. Microgen, G88 PDU. Memorandum Report 11-86.

Hodge, J., and G. Toms. 1986. Anesthesia Machine (FPSU). Memorandum Report 12-86.

Hodge, J., and G. Toms. 1986. Respirator (FPSU). Memorandum Report 13-86.

Hodge, J., and G. Toms. 1986. Skedco Stretcher. Memorandum Report 14-86.

Hodge, J., and G. Toms. 1986. Heater Unit, Patient Holding and Evacuation. Memorandum Report 15-86.

Hodge, J., and G. Toms. 1986. Refrigerator, Medical, Field (NDI) (4). Memorandum Report 16-86.

Hodge, J., and G. Toms. 1986. Refrigerator, Medical, Field RCB42EH (1). Memorandum Report 17-86.

Gula, P., and J. Shankle. 1986. Hatsuta AM-15, Backpack Sprayer-Duster. Memorandum Report 19-86.

Gula, P. 1986. Demand Oxygen Controller. Memorandum Report 20-86.

Gula, P., and J. Shankle. 1986. Trap, Mosquito, Light. Memorandum Report 21-86.

Extramural Study Reports/Publications:

Ahmed, H., J.L. Aull, D.E. Williams, and S.D. Worley. 1986. Inactivation of Thymidylate Synthase by Chlorine Disinfectants. Int. J. Biochem. 18(3):245-250.

Anspaugh, L.R., R.C. Cooper, J.L. Davids, R.E. Davidson, G. DeNike, K. Heckman, D.P.H. Hsieh, D.W. Layton, A.W. Olivieri, and R. Scofield. 1986. Evaluation of Military Field-Water Quality. Volume 4. Criteria and Recommendations for Standards for Chemical Constituents of Military Concern. Lawrence Livermore National Laboratory, CA.

Aranyi, C. 1986. Pulmonary Responses after Inhalation of Red Phosphorus/Butyl Rubber Combustion Products In Rats. In: Proceedings of Smoke and Obscurants Symposium X. Adelphi, MD, 22-24 April, pp. 631-642. Office of PM Smoke/Obscurants, Aberdeen Proving Ground, MD.

Aranyi, C., S. Vana, and R.D. Gibbons. 1985. Effects of Inhalation of Red Phosphorus/Butyl Rubber (RP/BR) Combustion Products In Rats. In: Proceedings: Smoke and Obscurants Symposium IX, Vol. 11, pp. 643-654. IIT Research Institute, Chicago, IL.

Cameron, B.D. 1986. HMX: Toxicokinetics of 14C-HMX Following Oral Administration to the Rat and Mouse and Intravenous Administration to the Rat. Inveresk International Research Limited, Musselburgh, Scotland.

Carnahan, R.P. 1986. Verification of Industrial Liquid Waste Treatment Plant Model at Holston Army Ammunition Plant. University of South Florida, Tampa, FL.

Cooper, R.C., A.W. Olivieri, R.E. Davidson, and P.G. Badger. 1986. Evaluation of Field-Water Quality. Volume 6. Infectious Organisms of Military Concern Associated with Nonconsumptive Exposure: Assessment of Health Risks and Recommendations for Establishing Related Standards. Lawrence Livermore National Laboratory, CA.

Couch, J.A., and L.A. Courtney. 1986. Hepatocarcinogenesis In an Estuarine Fish: Induced Neoplasms and Related Lesions with Comparisons to Mammalian Lesions. U.S. Environmental Protection Agency, Gulf Breeze, FL.

Craig, B., and J.N. Done. 1985. HMX: The Determination of Free Nitrite In Mouse Stomach Contents. Inveresk International Research Limited, Musselburgh, Scotland.

Cuthbert, J.A., K.J. DArcy-Burt, and S.M.A. Carr. 1985. HMX. Acute Toxicity Tests In Laboratory Animals. Inveresk Research International Limited, Musselburgh, Scotland.

Davies, D.W., E. Lappi, J. McGee, M.E. Hiteshew, and L. Walsh. 1986. Exposure Facility for Generating Fog Oil Obscurant for Inhalation Toxicology Studies. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Dixit, R., H.A.J. Schut, J.E. Klounig, and G.D. Stoner. 1986. Metabolism and DNA Binding of 2,6-Dinitrotoluene In Fischer-344 Rats and A/J Mice. Toxicol. Appl. Pharmacol. 82:53-61.

Etnier, E.L. 1986. Water Quality Criteria for Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX). Oak Ridge National Laboratory, Oak Ridge, TN.

Everett, D.J., and S.M. Maddock. 1985. HMX: 13-Week Toxicity Study In Mice by Dietary Administration. Inveresk International Research Limited, Musselburgh, Scotland.

Everett, D.J., I.R. Johnson, P. Hudson, and M. Jones. 1985. HMX: 13-Week Toxicity Study In Rats by Dietary Administration. Inveresk International Research Limited, Musselburgh, Scotland.

Fisher, D.J., D.T. Burton, M.J. Lenkevich, and K.R. Cooper. 1985. Analytical Methods for Determining the Concentration of Solvent Yellow 33, Solvent Green 3, Synthetic - HC Smoke Combustion Products and DEGDN In Freshwater. The Johns Hopkins University, Laurel, MD.

Greenough, R.J., and P. McDonald. 1985. HMX: 14-Day Toxicity In Mice by Dietary Administration. Inveresk Research International Limited, Musselburgh, Scotland.

Greenough, R.J., and P. McDonald. 1985. HMX: 14-Day Toxicity Study In Rats by Dietary Administration. Inveresk Research International Limited, Musselburgh, Scotland.

Grose, E.C., M.A. Stevens, J.W. Illing, R.H. Jaskot, J. Hardisty, and A. Stead. 1985. Pulmonary and Hepatic Health Effects of Inhalation of Petroleum Smoke. The Toxicologist 6(1):36.

Grose, E.C., M.J.K. Selgrade, J.W. Illing, R.H. Jaskot, M.J. Daniels, J.H. Richards, A.G. Stead, F.J. Miller, J.A. Graham, and J.F. Hardisty. 1986. Systemic Effects of Short-Term Exposure to Oil Fog. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Grose, E.C., M.J.K. Selgrade, J.W. Illing, R.H. Jaskot, M.J. Daniels, J.H. Richards, A.G. Stead, F.J. Miller, J.A. Graham, and J.F. Hardisty. 1986. Systemic Effects of Subchronic Exposure to Oil Fog. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Grose, E.C., M.J.K. Selgrade, K. Dean, G.E. Hatch, J.W. Illing, F.J. Miller, A. Stead, J.A. Graham, R.H. Jaskot, M.A. Stevens, and J. Hardisty. 1985. Pulmonary and Systemic Health Effects of Acute and Subchronic Exposure to Smoke Obscurant SGF-2. In: Proceedings of the Smoke Obscurant Symposium IX, U.S. Environmental Protection Agency, Research Triangle Park, NC.

Hatch, G.E., H. Koren, and R. Slade. 1986. Electrochemically Active Substances In Lavage Fluid and Cells of Rats and Humans. The Toxicologist 6:8.

Hawkins, W.E., J.W. Fournie, R.M. Overstreet, and W.W. Walker. 1986. Intraocular Neoplasms Induced by Methylazoxymethanol Acetate In Japanese Medaka (Oryzias latipes). J. NCI 76(3):453.

Henderson, M.S. 1985. HMX: Analysis of Dosing Formulations Used In Acute, Subacute, and Subchronic Toxicity Studies. Inveresk International Research Limited, Musselburgh, Scotland.

Henderson, M.S. 1985. HMX: Analysis In Plasma Obtained after 90-Day Toxicity Studies with Rats and Mice. Inveresk International Research Limited, Musselburgh, Scotland.

Henderson, R.F., Y.S. Cheng, F.F. Hahn, J.L. Mauderly, J.A. Pickrell, F.A. Seller, and J.D. Sun. 1985. Studies on the Inhalation Toxicity of Dyes Present In Colored Smoke Munitions. Final Report for Phase IV Studies: 90-Day Inhalation Exposures of Rats to Dye Aerosols. Lovelace Biomedical and Environmental Research Institute, Albuquerque, NM.

Hiatt, G.F., E.W. Morgan, and D.W. Korte. 1986. Dermal Sensitization Potential of Guanidine Hydrochloride In Guinea Pigs. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Hiatt, G.F., S.K. Sano, and D.W. Korte. 1986. Primary Eye Irritation Potential of Nitroguanidine In Rabbits. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Hinton, D.E., R.C. Lantz, R.S. McCuskey, P.A. McCuskey, J.A. Hampton, and A. Thiyagarajah. 1986. Enzyme-Altered Foci In Fish Liver Carcinogenesis. U.S. Environmental Protection Agency, Gulf Breeze, FL.

LaBorde, J.B. and H.K. Bates. 1986. Developmental Toxicity Study of Agent GD-DCSM In NZW Rabbits and CD Rats. National Center for Toxicological Research, Jefferson, AK.

LaBorde, J.B. and H.K. Bates. 1986. Developmental Toxicity Study of Agent GB-DCSM Types I and II In CD Rats and NZW Rabbits. National Center for Toxicological Research, Jefferson, AK. AD A168331.

Liljegren, J.C., W.E. Dunn, G.E. DeVaul, and A.J. Policastro. 1986. Field Study of Fog Oil Smokes. Argonne National Laboratory, Argonne, IL.

MacPhall, R.C., Q.D. Walker, and L.L. Cook. 1985. Neurotoxicology of Cyclotrimethylenetrinitramine (RDX). U.S. Environmental Protection Agency, Research Triangle Park, NC. AD A168266.

MacPhall, R.C., Q.D. Walker, and L.L. Cook. 1986. Acute Behavioral Toxicity of Cyclotrimethylene Trinitramine (RDX). Toxicologist 6:217.

Mahler, D.S. 1985. Measurement of Droplet Size Using Hot-Wire Instrumentation. In: Proceedings, 72nd Annual Meeting, New Jersey Mosquito Control Association, Inc., Atlantic City, NJ, pp. 112-127.

Marinas, B.J., Z. Ungun, and R.E. Selleck. 1986. Evaluation of Military Field-Water Quality. Volume 7. Performance Evaluation of the 600 GPH Reverse Osmosis Water Purification Unit (ROWPU): Reverse Osmosis Components. Lawrence Livermore National Laboratory, CA. AD UCRL-21008.

Mayhew, D.A., S.H. Smith, A.M. Muni, and J.E. Goodband. 1986. Dermal, Eye, and Oral Toxicological Evaluations: Acute Oral Toxicity of Benzothiozole, Dithiane, and Oxathiane. American Biogenic Corp., Decatur, IL.

Mayhew, D.A., S.H. Smith, G.L. Doyle, J.C. Kreuger, and K.A. Mellon. 1986. Dermal, Eye, and Oral Toxicological Evaluations of Brass Powder, Fog Oil, Diesel Fuel and Their Mixtures. Phase III Report. American Biogenic Corp., Decatur, IL.

Mayhew, D.A., S.H. Smith, G.L. Doyle, J.C. Krueger, and K.A. Mellon. 1986. Dermal, Eye, and Oral Toxicological Evaluations. Phase IV Report. Disperse Red II, Disperse Blue 3, Solvent Red 1, and Red and Violet Mixtures. American Biogenic Corp., Decatur, IL.

Medinsky, M.A., Y.S. Cheng, S.J. Kampcik, R.F. Henderson, and J.S. Dutcher. 1986. Disposition and Metabolism of ¹⁴C-Solvent Yellow and Solvent Green Aerosols after Inhalation. Lovelace Biomedical and Environmental Research Institute, Albuquerque, NM.

Messenger, M., L. Pritchard, H. Sleszynski, J. Dailey III, M. Morgan, and M. Higgins. 1986. Computerization of the Preliminary Pollutant Limit Value Concept. Technical Report N-86/13. U.S. Army Corps of Engineers Construction Engineering Research Laboratory, Champaign, IL.

Morgan, E.W., J.W. Bauserman, and D.W. Korte. 1986. Primary Eye Irritation of Guanidine Nitrate In Male Rabbits. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Morgan, E.W., L. Mullen, and D.W. Korte. 1986. Primary Dermal Irritation Potential of Guanidine Hydrochloride In Rabbits. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Morgan, E.W., S.K. Sano, and D.W. Korte. 1985. Acute Oral Toxicity (LD50) of Guanidine Hydrochloride In Rats. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Morgan, E.W., S.K. Sano, and D.W. Korte. 1986. Primary Dermal Irritation Potential of Nitroguanidine In Rabbits. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Muni, I.A., E.G. Gordon, and J.B. Goodband. 1985. Acute Toxicity Evaluation of Two Dyes and a By-Product of an Explosive. Toxicologist 5:98.

Muni, A.M., E.B. Gordon, and J.B. Goodband. 1986. Dermal, Eye, and Oral Toxicological Evaluations. Bioassay System Corporation, Woburn, MA. AD A165408.

Newton, G.J., Y-S. Cheng, T.B. Chen, R.L. Hanson, J.D. Sun, and R.F. Henderson. 1986. Aerosol Measurements In the Workplace at a Colored Smoke Munitions Plant. Lovelace Biomedical and Environmental Research Institute, Albuquerque, NM.

Pal, B.C., and M.G. Ryon. 1986. Database Assessment of Pollution Control In the Military Explosives and Propellants Industry. Oak Ridge National Laboratory, Oak Ridge, TN.

Palazzo, A.J., and D.C. Leggett. 1986. Effect and Disposition of TNT in a Terrestrial Plant. J. Environ. Quality 15:49-52.

Palazzo, A.J., D.C. Leggett, P.L. Butler, J.M. Graham, and B.T. Foley. 1985. Effect and Disposition of TNT In a Terrestrial Plant and Validation of Analytical Methods. CRREL-86-15. U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, NH.

Pohland, F.G. 1986. The Fate of Selected Organic Priority Pollutants During Landfill Operations. Georgia Tech Research Institute, Atlanta, GA.

Poston, T.M., K.M. McFadden, R.M. Bean, M.L. Clark, B.L. Thomas, B.W. Killand, L.A. Prohammer, and D.R. Kalkwarf. 1986. Acute Toxicity of Smoke Materials to Aquatic Organisms, White Phosphorus-Felt, Red Phosphorus-Butyl Rubber and SGF No. 2 Fog Oil. Pacific Northwest National Laboratory, Richland, WA.

Ramsey, R.S., J.H. Moneyhun, and R.W. Holmberg. 1986. The Chemical and Physical Characterization of XM819 Red Phosphorus Formulation and the Aerosol Produced by Its Combustion. Oak Ridge National Laboratory Oak Ridge, TN. AD A164442.

Rommereim, R.L., and P.L. Mackett. 1986. Evaluation of the Teratogenic Potential of Orally Administered Sulfur Mustard In Rats and Rabbits. Teratology 33:70C.

Ryabik, J.A.G., C. Lewis, P.W. Mellick, and D.W. Korte. 1986. Acute Dermal Toxicity of Ballpowder In Rabbits. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Ryon, M.G. 1986. Water Quality Criteria for Nitrocellulose. Oak Ridge National Laboratory, Oak Ridge, TN.

Sano, S.K., and D.W. Korte. 1985. Mutagenic Potential of Benzothiazole. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Sano, S.K., and D.W. Korte. 1985. Mutagenic Potential of Guanidine Nitrate. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Sano, S.K., and D.W. Korte. 1985. Mutagenic Potential of p-Dithiane. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Sano, S.K., and D.W. Korte. 1985. Mutagenic Potential of 1-4-Thioxane. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Sano, S.K., T.P. Kellner, and D.W. Korte. 1985. Mutagenic Potential of Guanidine Hydrochloride. Letterman Army Institute of Research, Presidio of San Francisco, CA.

Schut, H.A.J., N. Shivapeekar, M.J. Seepercgynski, and G.D. Stoner. 1986. O-Methyldeoxyguanosine Levels In Liver and Lungs of Dimethylnitrosamine Treated C3HeB/FeJ,A,/J, and C3H x A/J,F Mice. The Pharmacologist 28:173.

Smith, J.G. 1986. Water Quality Criteria for Nitroglycerine. Oak Ridge National Laboratory, Oak Ridge, TN.

Spanggord, R.J., C.A. Tyson, C. Green, C. Myers, and S. LeValley. 1986. Development of a Theoretical Model to Assess the Hepatocinogenic Potential of Chemicals Using Structure Activity Relationships and the Rat Hepatocyte Assay. SRI International, Menlo Park, NJ.

Spanggord, R.J., J-W. Chou, T. Mill, R.T. Podell, J.C. Harper, and D.S. Tse. 1986. Environmental Fate of Nitroguanidine, Diethyleneglycol Dinitrate and Hexachlorethane Smoke. SRI International, Menlo Park, NJ.

Sun, J.D., R.F. Henderson, M.A. Medinsky, G.J. Newton, Y.S. Cheng, T.C. Marshall, J.S. Dutcher, J.A. Pickrell, F.F. Hahn, J.L. Mauderly, and C.H. Hobbs. 1986. Inhalation Toxicity of Two Smoke Munition Dye Materials In F344 Rats. Lovelace Inhalation Toxicology Research Institute, Albuquerque, NM. Proceedings of the Smoke/Obfuscants Symposium IX.

Uhrmacher, J.C., D.O. Weber, P.P. Werschultz, J.W. Warner, and D. Pollack. 1986. A Health and Environmental Effects Data Base Assessment of U.S. Army Waste Material. Carltech Associates, Inc., Columbia, MD.

Wilson, A.B. 1986. HMX: Determination of the Acute and Subchronic Mammalian Toxicity. Inveresk Research International Limited, Musselburgh, Scotland.

FY85

**PUBLICATIONS: Health Effects Research Division/Field Medical Materiel
Development Division**

Open Literature Publications:

Boobar, L.R., J.H. Nelson, L.M. Anderson, and M.R. Sardelis. 1986. A Basic Program for Analysis of Droplet Size Distribution in Insecticide Sprays. J. Amer. Mosq. Control Assoc. 2(2):229-231.

Boobar, L.R., L.J. Vorgetts, Jr., L.M. Anderson, and J.H. Nelson. 1985. An Efficient Method for Transferring Adult Mosquitoes During Field Tests. J. Amer. Mosq. Control Assoc. 1:533-535.

Boobar, L.R., J.L. Stup, L.J. Vorgetts, and J.H. Nelson. 1985. A Thermistor Flowmeter for Stream Ecology. In: Proceedings of the New Jersey Mosquito Control Association, 17-21 March, pp. 126-127.

Burrows, E.P., and E.E. Brueggemann. 1985. Reversed Phase Gradient High Pressure Liquid Chromatography of Nitramine Munitions and Characterization of Munitions Process Samples by Gas Chromatography/Mass Spectrometry. J. Chromatogr. 329:285-289.

Burton, D.T., K.R. Cooper, W.L. Goodfellow, and D.H. Rosenblatt. 1984. Uptake, Elimination and Metabolism of ¹⁴C-Picric Acid and ¹⁴C-Picramic Acid in the American Oyster (Crassostrea virginica). Arch. Environ. Contam. Toxicol. 13:653-663.

Capellos, C., W.J. Fisco, C. Ribaudo, V.D. Hogan, J. Campisi, F.X. Murphy, T.C. Castorina, and D.H. Rosenblatt. 1984. Basic Hydrolysis for Glyceryl Nitrate Esters. II. 1,2-Glyceryl and 1,3-Glyceryl Dinitrate Esters. Int. J. Chem. Kinetics 16:1009-1026.

Capellos, C., W.J. Fisco, C. Ribaudo, V.D. Hogan, J. Campisi, F.X. Murphy, T.C. Castorina, and D.H. Rosenblatt. 1984. Basic Hydrolysis of Glyceryl Nitrate Esters. III. Trinitroglycerin. Int. J. Chem. Kinetics 16:1027-1051.

Cooper, K.R., D.T. Burton, W.L. Goodfellow, and D.H. Rosenblatt. 1984. Bioconcentration and Metabolism of Picric Acid (2,4,6-Trinitrophenol) and Picramic Acid (2-Amino-4,6-Dinitrophenol) in Rainbow Trout Salmo gairdneri. J. Toxicol. Environ. Health 14:731-747.

Taylor, G.W., and W.R. Mitchell. 1985. A New Yeast Bioassay for Mycotoxins Using Cryptococcus luteolus with Tetrazolium Salts. Microbiol. Abstract 044:243.

van der Schalie, W.H. 1985. Can Biological Monitoring Early Warning Systems be Useful in Detecting Toxic Materials in Water? In: Proceedings, Aquatic Toxicology and Environmental Fate: Ninth Symposium, Philadelphia, Pennsylvania, 14-16 April.

Vorgetts, L.J., Jr., and T.J. Smith. 1985. Factors Influencing Amplification of Bacillus thuringiensis (Serotype H-14) Endotoxin in Aedes aegypti Larvae. In: Proceedings of the 72nd Annual Meeting of the New Jersey Mosquito Control Association, 18 April, p. 247.

Other Publications:

Hoke, S.H. 1985. Development of a Real-Time Atmospheric Hydrogen Chloride Monitor. In: Proceedings of the Safety and Environmental Protection Subcommittee Meeting, Monterey, CA, November. Publication 436, Chemical Propulsion Information Agency, Laurel, MD.

Kayser, E.G., N.E. Burlinson, and D.H. Rosenblatt. 1984. Kinetics of Hydrolysis and Products of Hydrolysis and Photolysis of Tetryl. NSWC TR 84-68, Naval Surface Weapons Center, White Oak, Silver Spring, Maryland, 22 October.

Mahler, D.S., and D.E. Magnus. 1984. Hot-Wire Technique for Droplet Measurements. In: Liquid Particle Size Measurement Techniques, ASTM STP 48, J.M. Tishkoff, R.D. Ingelbo and J.B. Kennedy, Eds., American Society for Testing and Materials, pp. 153-165.

Scofield, R., E.P.H. Shich, and J.I. Daniels. 1985. A Refined Approach to the Establishment of Health Criteria for Water Contaminants. The Toxicologist 5(1):104. (Abstract No. 401).

Scofield, R., E.P.H. Shich, and D.W. Layton. 1985. An Evaluation of the Health Hazards From Pesticides in Water Supplies Outside the US. The Toxicologist 5(1):403. (Abstract No. 913).

Williams, D.E., S.D. Worley, W.B. Wheatley, and L.J. Swango. 1985. Bacterial Properties of a New Water Disinfectant. Appl. and Environ. Microbiol. 49(3):637-643.

Worley, S.D., D.E. Williams, H.D. Burkett, L.J. Swango, C.M. Hendrix, and M.H. Attleberger. 1985. G.E. Janauer, Ed. Comparisons of a New N-Chloramine Compound with Free Chlorine as Disinfectants for Water. Proceed. Conference on Chem. Disinfect. II 2:45-60.

In-House Publications:

Technical Reports

Burrows, E.P. and E.E. Brueggemann. 1984. Chemical Characterization of Dimethylsulfoxide (DMSO) Munitions Recrystallization Process Samples. Technical Report 8407. AD A149103.

Burrows, E.P., E.H. McNamee and C.M. Trout. 1984. Spectrodensitometric Quantitative Determination of Trichothecenes in Water: Application to T-2 Toxin and T-2 Tetraol. Technical Report 8406. AD A149404.

Dacre, J.C. 1984. Recommended Interim Criteria for Three Environmental Polluting Compounds of Rocky Mountain Arsenal. Technical Report 8302. AD A154826.

Hoke, S.H., and L.J. Baxter. 1985. Automated Ion Chromatography. Technical Report 8501. AD A159764.

Parmer, D.L., J.C. Dacre, and J.W. Carroll. 1985. Health Effects Research on Munition Contaminated Dimethyl Sulfoxide Recrystallization Process Solvent: Phase 1 Studies, Final Summary Report. Technical Report 8307. AD A159418.

Small, M.J. 1984. Compounds Formed From the Chemical Decontamination of HD, GB and VX and their Environmental Fate. Technical Report 8304. AD A149515.

van der Schalie, W.H. 1985. The Toxicity of Guanidine Nitrate to Freshwater Aquatic Organisms. Technical Report 8504. AD A158822.

van der Schalie, W.H. 1985. The Toxicity of Nitroguanidine and Photolyzed Nitroguanidine to Freshwater Aquatic Organisms. Technical Report 8404. AD A153045.

Memorandum Reports

Schmidt, M.O. and R. Chyrek. 1984. Operator's Manual for Modified, Transportable, Ion Exchange Column. MR 12-84.

Gula, P.R., Jr. and G.E. Toms, Jr. 1984. Comparative Evaluation of the U.S. Army and Israeli Aid Bags. MR 13-84.

O'Connor, R.J. 1984. Memo Report on Israeli Aid Bags. MR 14-84.

Hodge, J.W., Jr. and G.E. Toms, Jr. 1985. Filter System - Resuscitation Device, Individual, Chemical (Burgin Adapter). MR 1-85.

Hodge, J.W., Jr., J.E. Shankle and G.E. Toms, Jr. 1985. Multicapability Pesticide Dispersal Unit, Helicopter Slung; Developmental Test (DT II) Report. MR 2-85.

Hodge, J.W., Jr. and G.E. Toms, Jr. 1985. Environmental Testing of Steam Vacuum Pulse (SVP) and Ethylene Oxide Sterilization (EOS) Systems (Development Test II Supplement). MR 3-85.

Hodge, J.W., Jr. and G.E. Toms, Jr. 1985. Resuscitation Device, Individual, Chemical (Mine Safety Appliances). MR 4-85.

Hodge, J.W., Jr. and P.R. Gula, Jr. 1985. Resuscitation Device, Individual, Chemical (Mine Safety Appliances) (Supplemental). MR 6-85.

Hodge, J.W., Jr. and G.E. Toms, Jr. 1985. Evaluation of the Heat Pac System for the Protection of Casualties During Evacuation in Low Temperature Environments. MR 7-85.

Hodge, J.W., Jr. 1985. Resuscitation Device, Individual, Chemical (Mine Safety Appliances) (Supplemental). MR 8-85.

FY84

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Buescher, M.D., L.C. Rutledge, R.A. Wirtz, and J.H. Nelson. 1985. Laboratory Repellent Tests Against Rhodnius prolixus (Heteroptera: Reduviidae). Med. Entomol. 22:49-53.

Burrows, E.P., E.E. Brueggemann, and S.H. Hoke. 1984. Chromatographic Trace Analysis of Guanidine, Substituted Guanidines and s-Triazines in Water. Chromatography 294:494-498.

Dacre, J.C. 1984. Toxicology of Some Anticholinesterases Used as Chemical Warfare Agents, A Review. In: Cholinesterases - Fundamental and Applied Aspects. Edited by M. Brzin, et al., 425-426.

Goethals, G.B. 1984. Radiation Therapy. AORN Journal 39:724.

Goethals, G.B. 1984. An Introduction to Your Operation. AORN Journal 40:330.

Goethals, G.B. 1984. So, You Want to be in Movies? Today's OR Nurse 6:36-37.

Goyal, S.M., S.A. Schaub, F.M. Wellings, D. Bernard, J.S. Glass, C.J. Hurst, D.A. Brashear, C.A. Sorber, R.E. Moore, C. Ritter, P.H. Gibbs, and S.R. Farrah. 1984. Round Robin Investigations of Methods for Recovering Human Enteric Viruses From Sludge. Applied Environmental Microbiology 48(3):531-538

Mitchell, W.R., S.H. Hoke, and A.B. Rosencrance. 1984. Microbial Degradation of 2,4,6-trichloroaniline in Aquatic Samples and Laboratory Enrichment Cultures. Environmental Science Health A19(6):679-696.

In-House Publications:

Technical Reports

Burrows, E.P., E.E. Brueggemann, S.H. Hoke, E.H. McNamee, and L.J. Baxter. 1984. Nitroguanidine Wastewater Pollution Control Technology: Phase II. Wastewater Characterization and Analytical Methods Development for Organics. Technical Report 8311. AD A141176.

Burrows, W.D. 1983. Tertiary Treatment of Effluent From Holston AAP Industrial Liquid Waste Treatment Facility. III. Ultraviolet Radiation and Ozone Studies. TNT, RDX, HMX, TAX and SEX. Technical Report 8306. AD A137672.

Carnahan, R.P., P. Marsack, and W.D. Burrows. 1984. Evaluation of Industrial Liquid Waste Treatment Plant Design at Holston Army Ammunition Plant Phase I, Part I. Technical Report 8401. AD A149636.

Dacre, J.C. 1984. A Preliminary Toxicological Evaluation of Eight Chemicals Used as Wood Preservatives. Technical Report 8405. AD A144526.

Dennis, W.H., Jr., A.B. Rosencrance, T.M. Trybus, C.W.R. Wade, and E.A. Kobylinski. 1983. Treatment of Pesticide-Laden Wastewaters From Army Pest Control Facilities by Activated Carbon Filtration Using the Carbolator Treatment System. Technical Report 8203. AD A138399.

Kobylinski, E.A., and W.D. Burrows. 1983. Tertiary Treatment of Effluent From Holston AAP Industrial Liquid Waste Treatment Facility. II. Corona Oxidation Studies: TNT, RDX, HMX, TAX and SEX. Technical Report 8215. AD A136877.

Noss, C.I. 1983. Evaluation of Alkaline Chemical Addition and Organic Loading Schemes for Enhancement of Secondary Treatment and Ancillary Nutrient Removal. Technical Report 8303. AD A141178.

Noss, C.I., and R.H. Chyrek. 1984. Tertiary Treatment of Effluent From Holston AAP Industrial Liquid Waste Treatment Facility. IV. Ultraviolet Radiation and Hydrogen Peroxide Studies: TNT, RDX, HMX, TAX and SEX. Technical Report 8308. AD A141135.

Noss, C.I., and R.H. Chyrek. 1984. Nitroguanidine Wastewater Pollution Control Technology: Phase III. Treatment With Ultraviolet Radiation, Ozone and Hydrogen Peroxide. Technical Report 8309. AD A139389.

Small, M.J. 1984. The Preliminary Pollutant Limit Value Approach: Procedures and Data Base. Technical Report 8210. AD A150767.

Small, M.J. 1984. Nitroguanidine Wastewater Pollution Control Technology: Phase III. Ion Exchange and Carbon Adsorption Treatment. Technical Report 8310. AD A141161.

van der Schalie, W.H. 1983. The Acute and Chronic Toxicity of 3,5-Dinitroaniline, 1,3-Dinitrobenzene and 1,3,5-Trinitrobenzene to Freshwater Aquatic Organisms. Technical Report 8305. AD A138408.

Memorandum Reports

Gula, P.R., Jr., G.E. Toms, Jr., J.E. Shankle, and J.W. Hodge, Jr. 1984. Developmental Test (DT I) Report. MR 1-84, January.

Gula, P.R., Jr., J.E. Shankle, and G.E. Toms, 1984. Jr. First Article Test of One Gallon Sprayer, Insecticide, Manually-Carried Hand-Operated-Compression. MR 2-84, January.

Hodge, J.W., Jr., J.E. Shankle, and G.E. Toms, Jr. 1984. Litter Covers Polypropylene Mesh. MR 3-84, January.

Hodge, J.W., Jr. 1984. Litter Pole Handle Load-Deflection Test. MR 4-84, February.

Gula, P.R., Jr., J.E. Shankle, and G.E. Toms, Jr. 1984. First Article Test of Two Gallon Sprayer, Insecticide, Manually-Carried Hand-Operated-Compression. MR 5-84, March.

Mitchell, W.R. 1984. Preliminary Results of Biodegradation Studies for Guanidine Nitrate. MR 6-84.

Hodge, J.W., Jr., J.E. Shankle, G.E. Toms, Jr., and P.R. Gula, Jr. 1984. Developmental Test Report (DT I). MR 7-84, May.

Hodge, J.W., Jr., and G.E. Toms, Jr. 1984. SKEDCO Stretcher. MR 8-84, May.

Gula, P.R., Jr., and G.E. Toms, Jr. 1984. Developmental Test Report, Puritan-Bennett Gas-Powered Ventilator. MR 9-84, July.

Gula, P.R., Jr., and G.E. Toms, Jr. 1984. Developmental Test Report, Mine Safety Appliances Gas-Powered Ventilator. MR 10-84, July.

Gula, P.R., Jr., and G.E. Toms, Jr. 1984. Comparative Evaluation of the U.S. Army and Israeli Aid Bags. MR 13-84, November.

Hodge, J.W., Jr., and G.E. Toms, Jr. 1983. Engineering Evaluation of Bilan Refrigerator. MR 16-83, November.

Other Publications:

Bratt, G.M. 1984. The Role of the U.S. Army's Health Hazard Assessment Program in the Acquisition of Smoke/Obscurants. In: Proceedings of Smoke/Obscurants Symposium VIII, Harry Diamond Laboratories, 24-26 April, pp. 399-403.

Burrows, W.D., R.H. Chyrek, E.A. Kobylinski, C.I. Noss, and M.J. Small. 1984. Treatment for Removal of Munitions From Army Industrial Wastewaters. In: Proceedings of the Sixteenth Mid-Atlantic Industrial Waste Conference, Technomic Publishing Co., Lancaster, PA, pp. 331-342.

Burrows, W. D., S.A. Schaub, and B.W. Peterman. 1984. Field Reuse of Army Laundry and Shower Waters: Health Considerations. In: Proceedings of the Water Reuse Symposium III, AWWA Research Foundation, Denver, CO, pp. 973-981.

Eaton, J.C. 1984. Chemical Characterization and Toxicologic Evaluation of Diesel Fuel Aerosol. In: Proceedings of Smoke/Obscurants Symposium VIII, Harry Diamond Laboratories, 24-26 April.

Goethals, G.B. 1984. Surgical Instruments: Care and Handling. Film. David & Geck, Danbury, Connecticut.

Henry, M.C. 1984. Mutagenic Screening of Six Candidate Dyes for Colored Smoke Munitions in the Salmonella Reversion Assay. PO Report 9600.

Kenyon, K.E. 1984. EQT Information Exchange Bulletin/USAMBRDL. Environmental Quality Technology Exchange Bulletin, 3rd Issue.

Rosenblatt, D.H. 1984. The Name of the Game (Guest Editorial). Environmental Science and Technology 18:39A.

FY83

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Anderson, L.M., J.H. Nelson, C. Thies, and M.V. Meisch. 1983. Evaluation of a Controlled-Release Silicate Formulation of Temephos against Aedes Aegypti Larvae in the Laboratory and Psorophora Columbiae Larvae in Rice Field Plots. J. Med. Entomol. 20:325-329.

Bausum, H.T., Schaub, S.A., et al. 1983. Microbiological Aerosols from A Field-Source Wastewater Irrigation System. J. Water Pollution Control Federation 55(1):65-75.

Bratt, G. 1983. Smoke/Obскурants Health Effects Research Overview. In: Proceedings, Smoke/Obскурants Symposium VII, 26-28 April.

Broich, S.G., W.H. van der Schalie, and W.R. Hartley. 1982. A Comparison of Early Life Stage Effects and Histopathology with the Chronic Life Cycle Effects of 2,4-Dinitrotoluene on the Fathead Minnow (Pimephales promelas). In: Proceedings, Third Annual Meeting, Predictability in Environmental Toxicology and Chemistry, Arlington, VA, November.

Buescher, M.D., L.C. Rutledge, J. Roberts, and J.H. Nelson. 1984. Observations on Multiple Feeding by Lutzomyia longipalpis in the laboratory (Diptera: Psychodidae). J. Amer. Mosq. Cont. Assoc. 44(1):76-77.

Buescher, M.D., L.C. Rutledge, R.A. Wirtz, and J.H. Nelson. 1983. The Dose-Persistence Relationship of Deet against Aedes aegypti. J. Amer. Mosq. Cont. Assoc. 43(3):364-366.

Buescher, M.D., L.C. Rutledge, R.A. Wirtz, J.H. Nelson, and J.L. Inase. 1984. Repellent Test against Leptotrombidium (Leptotrombidium) fletcheri (Acarii Trombiculidae). J. Med Entomol. 21(3):278-282.

Burrows, E.P., S. Hoke, and W. Mitchell. 1983. Bioassays for Mycotoxins in Water. In: Proceedings of the 1983 DOD Toxin Defense Coordination Meeting. Special Publication CRDC-SP-84008, p. 62. Chemical Research and Development Center, Aberdeen Proving Ground, MD

Dacre, J. 1983. Toxicology of Some Anticholinesterases Used as Chemical Warfare Agents - A Review. Second International Meeting on Cholinesterases-Fundamental and Applied Aspects, Bled, Yugoslavia, 17-21 September. Abstracts, p. 125.

EG&G Bionomics Aquatic Toxicology Laboratory. 1983. An Assessment of the Suitability of Several Media for Culturing and Testing Daphnia magna. EG&G Contract No. DAMD17-80-C-0011. Bionomics Aquatic Toxicology Laboratory, Wareham, MA.

Frommer, R.L., J.H. Nelson, P.H. Gibbs, and L.J. Vorgetts. 1983. Dose-Time Response Between Simulium Vittatum (Diptera:Simuliidae) Larvae and Abate 220E (Temephos). J. Amer. Mosq. Cont. Assoc. 43:70-71.

Gibbs, P.H., W.J. Cooper, and E.M. Ott. 1983. A Statistical Experimental Design for Comparison Testing of Analytical Procedures. J. of AWWA, pp. 578-582. AD A137444.

Hartley, W.R. 1983. Uptake, Distribution and Elimination of 2-4-Dinitrotoluene in the Bluegill Sunfish, Lepomis macrochirus. In: Proceedings, Water Quality and Wetlands Management Conference, New Orleans, LA.

Kulkarni, R.K. 1983. Specific Adsorbents for Wastewater Pollutants. ACS Meeting, Washington, DC, August. ACS Preprints Vol. 23, No. 2.

Miller, T.A., W.J. Cooper, and J.W. Highfill. 1982. Relationships Between Pupal Size and Egg Production in Reared Female Antheraea polyphemus. Ann. Entomol. Soc. Am. 75(1):107-108.

Miller, T.A., Cooper, W.J., and Highfill, J.W. 1983. Egg Production in Female Callosamia promethea Lepidoptera Saturniidae as a Function of Pupal Size and Adult Longevity. Ann. Entomol. Soc. Am. 76(4):668-670

Rosenblatt, D.H., M.J. Small, and R.J. Kainz. 1983. Application of the "PPLV" Environmental Risk Assessment Approach to Selected Land Uses. In: Fate of Chemicals in the Environment, eds. Swan and Eschenroeder, Chapter 14, pp. 263-284.

Wade, C.W.R., and H.T. Bausum. 1984. Occupational Health Research in Mycotoxins. In: Proceedings of Chemical System Laboratory's Department of Defense Toxin Defense Coordination Meeting, Aberdeen Proving Ground, MD.

In-House Publications:

Technical Reports

Brueggemann, E.E. HPLC Analysis of SEX, HMX, TAX, RDX, and TNT in Wastewater. Technical Report No. 8206. AD A127348.

Burrows, E.P., and S.A. Schaub. Identification of Xenobiotic Contaminants of Field Water Supply System Designed for Rapid Deployment Force. Technical Report No. 8301. AD A127387.

Dennis, W.H. An Investigation of the Presence of N, N'-bis (2,4,6 trichlorophenyl) Urea in Estuarine Sediments of Aberdeen Proving Ground Edgewood Area. Technical Report No. 8211. AD A129731.

Dennis, W.H., E. Burrows, and B. Siggins. The Environmental Fate of 2,4,6-Trichloroaniline Chemical and Physical Pathways. Technical Report No. 8202. AD A133937.

Hoke, S.H., L.J. Baxter, and M. Burns. Catalytic Degradation of Trihalomethanes. Technical Report No. 8402. AD A151516.

Kenyon, K. A Data Base Assessment of Environmental Fate Aspects of Nitroguanidine. Technical Report No. 8214. AD A125591.

Small, M.J. Preliminary Pollutant Limit Value Analysis to Target Soil Detection Limits for Potential Residual Chemical Warfare - Related Contaminants at Fort McClellan, Alabama. Technical Report No. 8208. AD B077091L.

Memorandum Reports

Hodge, J.W., J.E. Shankle, and G.E. Toms. Bilan Refrigerator Test Report (Supplemental). Memorandum Report No. 1-83.

Hodge, J.W., and G.E. Toms. Environmental Protection Container for Medical Supplies - Supplemental Test Report. Memorandum Report No. 2-83.

Burrows, W.D. Nitroguanidine Wastewater Pollution Control Technology: Phase I Report. Memorandum Report No. 3-83.

Anderson, L.M., J.H. Nelson, and P.E. Pierce. Laboratory Evaluation of the Posi-Drive Volumetric Flow Control System. Memorandum Report No. 4-83.

Troychock, J. USAMBRDL Mobilization Planning. I. Concept of Rapid R&D Response Team to Resolve Health Problems Arising from Indigenous Pollutants and Contaminants of Field Water Supplies during Wartime. Memorandum Report No. 5-83.

Gula, P.R., G.E. Toms, and J.E. Shankle. Steam Vacuum Pulse (SVP) and Ethylene Oxide Sterilization (EOS) Systems - Developmental Test (DTII) Report. Memorandum Report No. 8-83.

Hodge, J.W., and G.E. Toms. Evaluation of Norwegian Personnel Heater SN 079. Memorandum Report No. 9-83.

Gula, P.R. Proposed Revision of Military Specification MIL-A-52940A - Aerosol Generator, Non-Thermal Insecticide, Ultra Low Volume. Memorandum Report No. 10-83.

Gula, P.R., and J.E. Shankle. Engineering Evaluation of LECO Model HD Aerosol Generator. Memorandum Report No. 11-83.

Gula, P.R., and J.E. Shankle. Engineering Evaluation of Curtis Dyna Aerosol Generator. Memorandum Report No. 12-83.

Burrows, E.P. GC/MS and HPLC Analysis of Munition-Contaminated Dimethyl Sulfoxide (DMSO) Samples. Memorandum Report No. 13-83.

Gula, P.R., and G.E. Toms. First Article Test of Sterilizer, Surgical Instrument and Dressing, NSN 6530-01-098-5827. Memorandum Report No. 14-83.

Hodge, J.W., and J.E. Shankle. Field Gurney - Task No. 874.00-236, Development Test Report (DTI). Memorandum Report No. 15-83.

Pierce, P.E., R.L. Scott, and R.L. Baugh. First Article Operational Evaluation of LECO Model MD Aerosol Generator. Memorandum Report No. 17-83.

Pierce, P.E., R.L. Scott, and R.L. Baugh. First Article Operational Evaluation of Curtis Dyna-Products Aerosol Generator. Memorandum Report No. 18-83.

FY82

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Albertson, J.N., Jr. 1982. Materiel Studies "Mission Oriented." U.S. Medicine 18(15):35-36.

Bausum, H.T., W.H. Dennis, and S.H. Hoke. 1982. Persistence and Partition of Pesticides in Primary Sewage Sedimentation - Kansas City, MO. Abstracts, 184th National Meeting ACS, Div. Pest. Chem., No. 50.

Bausum, H.T., S.A. Schaub, W.E. Rose, and P.H. Gibbs. 1981. Enteric Virus Removal in Wastewater Treatment Lagoon Systems. Technical Report, USEPA 600/S1-83/012.

Brueggemann, E., J.E. Wajon, C.W.R. Wade, and E.P. Burrows. 1982. Analysis of Unquenched Reaction Mixtures of Chlorine Dioxide and Phenols by Reversed Phase High Performance Liquid Chromatography. J. Chromatogr. 237:484-488.

Burlinson, N.E., L.A. Lee, and D.H. Rosenblatt. 1982. Kinetics and Products of Hydrolysis of 1,2-Dibromo-3-chloropropane (DBCP). Environ. Sci. Technol. 16:627-632.

Burrows, E.P., and D.H. Rosenblatt. 1982. Conversion of Acyclic Amines to Amides by Chlorine Dioxide. J. Org. Chem. 47:892-893.

Burrows, E.P., and D.H. Rosenblatt. 1983. Mechanism of Oxidation of Trialkylamines by Ferricyanide in Aqueous Solution. J. Org. Chem. 48:992-995.

Cairns, J., Jr., and W.H. van der Schalie. 1982. Biological Monitoring. Part I- Early Warning Systems. In J. Cairns Jr. Biological Monitoring in Water Pollution, Pergamon Press, New York. pp. 1179-1199.

Cooper, W.J., M.F. Mehran, R.A. Slifker, D.A. Smith, J.T. Villate, and P.M. Gibbs. 1982. Comparison of Several Methods for the Determination of Chlorine Residuals in Drinking Water. J. Amer. Water Assoc. 74(10):546-552.

Dennis, W.H., Jr., and E.A. Kobylinski. 1983. Pesticide-Laden Wastewater Treatment for Small Waste Generators. J. Environ. Sci. Health Part B Food Contam. Agric. Wastes 18(3):317-332.

Dilley, J.V., C.A. Tyson, R.J. Spanggord, D.P. Sasmore, G.W. Newell, and J.C. Dacre. 1982. Short-Term Oral Toxicity of 2,4,6-Trinitrotoluene in Mice, Rats, and Dogs. J. of Toxicology and Environmental Health 9:565-585.

Dilley, J.V., C.A. Tyson, R.J. Spanggord, D.P. Sasmore, G.W. Newel, and J.C. Dacre. 1982. Short-Term Oral Toxicity of A 2,4,6-Trinitrotoluene and Hexahydro-1,3,5-Trinitro-1,3,5-Triazine Mixture in Mice, Rats, and Dogs. J. of Toxicology and Environmental Health 9:587-610.

Frommer, R.L., J.H. Nelson, P.H. Gibbs, and L.J. Vorgetts. 1983. Dose-Time Response Between Simulium Vittatum (Diptera:Simuliidae) Larvae and Abate 200E (Temephos). J. Amer. Mosq. Cont. Assoc. 43(1):70-71.

Johnson, D.L. 1982. Integration of Health Effects Research with Systems Development: Recent Funding Policy Guidance. In: Proceedings, Smoke Symposium VI, Adelphia, MD, 27-29 April.

Kainz, R.J., and L.E. White. 1983. Consequences Associated with the Inhalation of Uncombusted Diesel Vapor. In: Proceedings, Toxicol. Pet. Hydrocarbons, pp. 320-327.

Kainz, R.J., and L.E. White. 1982. Neurotoxic Effect and Performance Deterioration Resulting from Uncombusted Diesel Vapor Inhalation. In: Abstracts, Society of Environmental Toxicology and Chemistry, Arlington, VA, 14-17 November.

Leonard, F.W., and C.W.R. Wade. 1982. Electrically Induced Hydrolysis of Adenosine-5' Triphosphate. Journal of Bioelectricity 1(2):231-237.

Miller, T.A., and W.J. Cooper. 1983. Daily Oviposition Rates in Reared Female Antheraea polyphemus (Saturniidae). J. Lepid. Soc. 37(4):319-320.

Miller, T., J.W. Highfill, and W.J. Cooper. 1982. Relationships Between Pupal Size and Sex in Giant Silkworm Moths Saturniidae. J. Lepid Soc. 36(3):207-216.

Mitchell, W.R., and W.H. Dennis, Jr. 1982. Biodegradation of 1,3-Dinitrobenzene. J. Environ. Sci. Health A17(6):837-853.

Rosenblatt, D.H. 1981. Two Recommended Decisions about Environmental Pollutants: o-Chlorobenzalmalonitrile and Diphenylamine. Second Annual Meeting, Society of Environmental Toxicology and Chemistry, 24 November.

Rosenblatt, D.H., and E.P. Burrows. 1982. Oxidation of Amines. In: The Chemistry of Amino, Nitroso and Nitro Compounds and Their Derivatives, S Patai, ed., Supplement F, pp. 1085-1150. Wiley: Chichester, England.

Rosenblatt, D.H., J.C. Dacre, and D.R. Cogley. 1982. An Environmental Fate Model Leading to Preliminary Pollutant Limit Values for Human Health Effects, In: Environmental Risk Analysis for Chemicals, chapter 15. Van Nostrand Reinhold Company.

Rosenblatt, D.H., and R.J. Kainz. 1982. Technical Issues Raised during Risk Assessment Case Studies. National Conference on Environmental Engineering, American Society of Civil Engineers, Minneapolis, MN, 14 July. Abstracts, pp. 123-126.

Rosenblatt, D.H., and R.J. Kainz. 1982. Solving Environmental Problems Using the PPLV Approach and Guild Theory. Guild Theory Workshop, U.S. Corps of Engineers, and University of Illinois, Chicago, IL, 22 April.

Rosenblatt, D.H., M.J. Small, and R.J. Kainz. 1982. Application of the "PPLV" Environmental Risk Assessment Approach to Selected Land Uses. PEST Abstract No. 34, 184th ACS National Meeting, Kansas City, MO, 15 September.

Schaub, S.A., H.T. Bausum, and G.W. Taylor, 1982. Fate of Virus in Wastewater Applied to Slow-Infiltration Land Treatment Systems. Applied and Environmental Microbiology, pp. 383-394.

Tyson, C.A., J.W. Dilley, D.P. Sasmore, R.J. Spanggord, G.W. Newell, and J.C. Dacre. 1982. Single-Dose and Repeated Exposure Toxicity of A Complex Wastewater from Munitions Manufacturing Plants. J. of Toxicology and Environmental Health 9:545-564.

van der Schalie, W.H. 1982. Utilization of Aquatic Organisms for Continuously Monitoring the Toxicity of Industrial Waste Effluents. In: Proceedings of Twelfth Conference on Environmental Toxicology, November 3-5, 1981. Paper No. 22. Report No. AFAMRL-TR-81-149, pp. 370-392. Air Force Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, OH.

van der Schalie, W.H., and J.G. Pearson. Estimation of the Toxicity of Munitions-Related Materials to Fish and other Aquatic Organisms. In: Proceedings, Warm Water Workshop, American Fisheries Society, Northeastern Division. Environmental Contaminants and Warm Water Fishes, Kearnsville, WV.

Van Essen, F.W., and S.C. Hembree. 1982. Simulated Field Studies with Four Formulations of Bacillus thuringiensis var. israelensis Against Mosquitoes: Residual Activity and Effect of Soil Constituents. Mosq. News 42:66-72.

Wajon, J.E., D.H. Rosenblatt, and E.P. Burrows. 1982. Oxidation of Phenol and Hydroquinone by Chlorine Dioxide. Environmental Science and Technology 16:396-402.

In-House Publications:

Technical Reports

Burrows, E.P., and D.H. Rosenblatt. Competitive Pathways in Chlorine Dioxide Oxidation of Amines: Amide Formation from Cyclic Amines. Technical Report No. 8109. AD A107242.

Burrows, W.D. Tertiary Treatment of Effluent from Holston AAP Industrial Liquid Waste Treatment Facility: I. Batch Carbon Adsorption Studies: TNT, RDX, HMX, TAX, and SEX. Technical Report No. 8207. AD A121244.

Dennis, W.H., Jr., C.W.R. Wade, A.B. Rosencrance, T.M. Trybus, and E.E. Bruggemann. Concentration of Trace Amounts of Organophosphorus Pesticides from Water by Sep Pak C₁₈ Cartridges. Technical Report No. 8107. AD A107555.

Kenyon, K. Free Available Chlorine Disinfection Criteria for Fixed Army Installation Primary Drinking Water. Technical Report No. 8108. AD A114482.

Kobylnski, E.A., and B.A. Bell. Anaerobic Digestion of Lime Sludge. Technical Report No. 8205. AD A118502.

Mitchell, W.R., W.H. Dennis, and E.P. Burrows. Microbial Interactions with Several Munitions Compounds: 1,3-Dinitrobenzene, 1,3,5-Trinitrobenzene, and 3,5-Dinitroaniline. Technical Report No. 8201. AD A116651.

Rosenblatt, D.H. Environmental Risk Assessment for Four Munitions-Related Contaminants at Savanna Army Depot Activity. Technical Report No. 8110. AD A116650.

Rosenblatt, D.H., R.J. Kaintz, and G.F. Fries. Options and Recommendations for a Polybromo-biphenyl Strategy in the Vicinity of the Gratiot County, Michigan Landfill. Technical Report No. 8204. AD A121243.

Small, M.J., J.B. Duncan, and P.H. Gibbs. The ROWPU Prefiltration System: Removal of Microorganisms. Technical Report No. 8104. AD A115542.

Memorandum Reports

Bausum, H.T. A Data Base Assessment - Microbiological Aspects of the Environmental Fate of Diesel Fuels and Fog Oils. Memorandum Report 1-82.

Hodge, J.W., Jr., J.E. Shankle and G.E. Toms. X-Ray Apparatus, Dental, Portable, Field (Siemens) Developmental Test (DT I) Report. Memorandum Report 2-82.

Thayer, C.R. Vital Signs Monitors Testing in the M113 Personnel Carrier. Memorandum Report 3-82.

Schmidt, M.O. Brine Shrimp Toxicity Testing of Suspect Water. Memorandum Report 4-82.

Hodge, J.W., Jr. Vibration Test, Nerve Agent Antidote Kit, Mark-I (MK-I). Memorandum Report 5-82.

Hodge, J.W., Jr. Tension Test of Load Suspension System for Liquid Dispersal Unit, Helicopter Slung. Memorandum Report 6-82.

Conway, W.H. Evaluation of Herculite 80 as A Canvas Replacement for Field Hospital Bed Covers. Memorandum Report 7-82.

Chyrek, R.H., and E.A. Kobylinski. Operator's Manual for Modified, Transportable, Ultrafiltration Unit. Memorandum Report 8-82.

Hodge, J.W., Jr., J.E. Shankle, and G.E. Toms. Evaluation of Norwegian Personnel Heater SN001. Memorandum Report 9-82.

Taylor, G.W. A Data Base Assessment - Microbial Fate of Military-Relevant Petroleum Fog Oils. Memorandum Report 10-82.

Chyrek, R.H., W.R. Rose, and E.A. Kobylinski. Operator's Manual for Modified, Transportable, Reverse Osmosis Unit. Memorandum Report 11-82.

Hodge, J.W., and G.E. Toms. Environmental Protection Container for Medical Supplies. Memorandum Report 12-82.

Gula, P.R., J.E. Shankle, and G.E. Toms. Pesticide Dispersal Unit, Liquid, Helicopter Slung Developmental Test (DT IIa) Report. Memorandum Report 13-82.

Hodge, J.W., Jr., J.E. Shankle, and G.E. Toms. Mark-I Kit, Vibrations Test Report. Memorandum Report 14-82.

Hodge, J.W., Jr., and G.E. Toms. Evaluation of Bilan Thermoelectric Refrigerator. Memorandum Report 15-82.

Gula, P.R. Proposed Revision of Mil Spec MIL-S-238901B Sprayer-Duster, Backpack Type: GED Blower (Commercial). Memorandum Report 16-82.

FY81

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Frommer, R.L., S.C. Hembree, J.H. Nelson, M.P. Remington, and P.H. Gibbs. 1981. The Evaluation of Bacillus thuringiensis var. israelensis in reducing Simulium vittatum (Diptera: Simuliidae) Larvae in their Natural Habitat with No Extensive Aquatic Vegetative Growth. Jour. Amer. Mosq. Cont. Assoc. 41(2):339-347.

Frommer, R.L., S.C. Hembree, J.H. Nelson, M.P. Remington, and P.H. Gibbs. The Distribution of Bacillus thuringiensis var. israelensis in Flowing Water with No Extensive Aquatic Vegetative Growth. Jour. Amer. Mosq. Cont. Assoc. 41(2):331-338.

Frommer, R.L., J.H. Nelson, M.P. Remington, and P.H. Biggs. 1981. The Effects of Extensive Aquatic Vegetative Growth on the Distribution of Bacillus thuringiensis var. israelensis in flowing water. Jour. Amer. Mosq. Cont. Assoc. 41(4):713-724.

Hembree, S.C. 1981. Evaluation of the Microbial Control Potential of a Helicosporidium sp. (Protozoa: Helicosporida) from Aedes aegypti and Culex quinquefasciatus from Thailand. Mosq. News 41:770-783.

Hembree, S.C. 1982. Dose-Response Studies of a New Species of Per Os and Vertically Transmittable Microsporidian Pathogen of Aedes aegypti from Thailand. Mosq. News 42(1):55-60.

Hembree, S.C., and J.R. Ryan. 1982. Observations on the Vertical Transmission of a New Microsporidian Pathogen of Aedes aegypti from Thailand. Mosq. News 42(1):49-54.

Kardatzke, J.T., P.R. Gula, and J.H. Nelson. 1981. Engineering Evaluation of Commercial Backpack Sprayer/Dusters. Mosq. News 41:327-330.

Van Essen, F.W., and S.C. Hembree. 1982. Simulated Field Studies with Four Formulations of Bacillus thuringiensis var. israelensis Against Mosquitoes: Residual Activity and Effect of Soil Constituents. Mosq. News 42(1):66-71.

In-House Publications:

Technical Reports

Chang, Y.H., and S.H. Hoke. The Determination of Volatile Free Acids in Sewage by Gas Chromatography Using an Internal Standard Method. Technical Report No. 8106. AD A105114.

Cowen, W.F., Y.H. Chang, M.W. Smith, and W.J. Baczynskyj. Evaluation of Methods for the Analysis of Small Molecular Weight End-Products of Wastewater Ozonation. Technical Report No. 8011. AD A091666.

Craker, L.E. The Determination of Phytotoxicity. Technical Report No. 8102. AD A099107.

Kardatzke, J.T., and J.H. Nelson. Aerosol Generator, ULV, Skid Mounted. Technical Report No. 8009. AD B053908.

O'Connor, R.J., R.B. Brewer, and L.T. Geasey, Jr. A New Aid Bag for the Combat Medical Corpsman. Technical Report No. 8103. AD B055818L.

Rosenblatt, D.H., and M.J. Small. Preliminary Pollutant Limit Values for Alabama Army Ammunition Plant. Technical Report No. 8105. AD A104203.

Shiotsuka, R.N., P.H. Biggs, and S. Allongo. Photobacterial Response to Cadmium Chloride, Mercuric Chloride, and Selenium Dioxide: Dose Response and Interaction Studies. Technical Report No. 8012. AD A094903.

Memorandum Reports

Hodge, J.W. Delivery Systems for CW Medicaments, Phase II, Test Report. Memorandum Report No. 1-81.

Bausum, H.T., and S.A. Schaub. Compilation and Analysis of Existing Data on Virus Translocation In Soils. Memorandum Report No. 2-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Refrigerator Test Report. Memorandum Report No. 3-81.

Thayer, C. Vital Signs Monitoring Instrument Tested in the M113 Armored Personnel Carrier. Memorandum Report No. 4-81.

Gula, P.R., J.W. Hodge, J.E. Shankle, and G.E. Toms. Test Results and Evaluation of London Aire Model XKA ULV Aerosol Generator. Memorandum Report No. 5-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Modified MUST Surgical Light Power Supply, Test Report. Memorandum Report No. 6-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. High Capacity X-Ray System for Field Use, Test Report (DTI). Memorandum Report No. 7-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Modified MUST Surgical Light Power Supply, Final Test Report. Memorandum Report No. 8-81.

Siggins, B. Proposal for Chemistry Support Scheduling and Quality Control Procedures. Memorandum Report No. 9-81.

Gula, P.R., J.E. Shankle, and G.E. Toms. Pesticide Dispersal Unit, Solid Helicopter Slung, DTII (Developmental Test) Report. Memorandum Report No. 10-81.

Thayer, C. Evaluation of the West German Gurney. Memorandum Report No. 11-81.

Gula, P.R., G.E. Toms, and J.E. Shankle, High Temperature Test Results for Surgical Scrub Sink. Memorandum Report No. 12-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. X-Ray Film Processor, Dental, Portable, Field, Developmental Test Report (DTII, Supplemental). Memorandum Report No. 13-81.

Thayer, C. Vital Signs Monitoring Instruments Tested in the M113 Armored Personnel Carrier. Memorandum Report No. 14-81.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Litter Load-Deflection Test. Memorandum Report No. 15-81.

FY80

PUBLICATIONS: Health Effects Research Division/Field Medical Materiel Development Division

Open Literature Publications:

Cairns, J., Jr., and W.H. van der Schalie. 1980. Biological Monitoring. Part 1. Early Warning Systems. Water Research 14:1179-1196.

Clivieri, V.P., M.C. Snead, and W.H. Dennis, Jr. 1980. Biological Evaluation of the Methods for Determination of Free Available Chlorine. Chem. Water Reuse 1:401-427.

Dacre, J.C. 1980. Potential Health Hazards of Toxic Organic Residues in Sludge. In: Sludge-Health Risks of Land Application, eds. G. Bitton, B.L. Damron, G.T. Edds, and J.M. Davidson, chapter 4, pp. 85-102. Ann Arbor: Ann Arbor Science Publishers, Inc., The Butterworth Group.

Frommer, R.L., S.C. Hembree, J.H. Nelson, M.P. Remington, and P.H. Gibbs. 1980. Potential Sources of Error in Preparing Doses of Microbial Insecticides. Bull. Ent. Soc. Amer. 26(4):445-446.

Frommer, R.L., S.C. Hembree, J.H. Nelson, M.P. Remington, and P.H. Gibbs. 1980. The Susceptibility of Immature Simulium vittatum (Diptera: Simuliidae) to Bacillus thuringiensis var. israelensis in the Laboratory. Jour. Amer. Mosq. Cont. Assoc. 40(4):577-584.

Hembree, S.C., R.L. Frommer, and M.P. Remington. 1980. A Bioassay Apparatus for Evaluating Larvicides Against Black Flies (A Research Note). Mosq. News 40:647-650.

Hembree, S.C., M.V. Meisch, and D. Williams. 1980. Field Test of Bacillus thuringiensis var. israelensis against Psorophora columbiae Larvae in Small Rice Plots. Mosq. News 40:67-70.

Kardatzke, J.T. 1980. Effect of Calcium Chloride on Larval Snow-Melt Aedes (Diptera: Culicidae). Mosq. News 40:153-160.

Leber, A.P., L.T. Bavda, and D.C. Mays. 1980. Pharmacokinetic and Metabolic Study of p-Chlorophenyl Methyl Sulfide, p-Chlorophenyl Methyl Sulfoxide and p-Chlorophenyl Methyl Sulfone in Rats and Monkeys. Toxicol. Lett. 5(1):226. Abstract 198.

McClave, J.T., J.H. Sullivan, and J.G. Pearson. 1981. Statistical Analyses of Fish Chronic Toxicity Test Data. ASTM Spec. Tech. Publ. 737:359-376.

Rosenblatt, D.H. 1980. Toxicology of Explosives and Propellants. In: Encyclopedia of Explosives and Related Items, ed. S.M. Kaye. Volume 9, pp. T332-T345. Large Caliber Weapon Systems Laboratory, U.S. Army Armament R&D Command, Dover, NJ.

Rowlett, C.D., R.N. Shiotsuka, M.C. Henry, and J.G. Pearson. 1980. The Role of Health Hazard Assessments in the Development of Improved Smokes and Obscurants. In: Proceeding of Smoke/Obscurants Symposium IV, 22-23 April. Harry Diamond Laboratory.

Thake, D.C., and D.C. Mays. 1980. Toxicological Manifestations of p-Chlorophenyl Methyl Sulfide, p-Chlorophenyl Methyl Sulfoxide and p-Chlorophenyl Methyl Sulfone in Rats, Mice, and Rabbits. Toxicol. Lett. 5(1):32. Abstract 0.33.

Thake, D.C., D.C. Mays, and D.L. Metcalf. 1980. Toxicological Manifestations of p-Chlorophenyl Methyl Sulfide, p-Chlorophenyl Methyl Sulfoxide and p-Chlorophenyl Methyl Sulfone in Rhesus Monkeys. Toxicol. Lett. 5(1):32. Abstract 0.34.

Van Essen, F.W., and S.C. Hembree. 1980. Laboratory Bioassay of Bacillus thuringiensis israelensis Against All Instars of Aedes aegypti and Aedes taeniorhynchus Larvae. Mosq. News 40:424-431.

In-House Publications:

Technical Reports

Anderson, L.M., J.H. Nelson, J.T. Kardatzke, and D.P. Driggers. Laboratory Evaluation of the USDA Rapid Nondestructive Stored Products Insect Detector. Technical Report No. 8001. AD A084090.

Dacre, J.C., W.D. Burrows, C.W.R. Wade, A.F. Hegyeli, and T.A. Miller. Problem Definition Study on Potential Environmental Pollutants. Physical, Chemical, Toxicological and Biological Properties of Seven Chemicals Used in Pyrotechnic Compositions. Technical Report No. 7704. AD A090631.

Dennis, W.H., Jr., E.P. Meier, A.B. Rosencrance, W.F. Randall, M.T. Reagan, and D.H. Rosenblatt. Chemical Degradation of Military Standard Formulations of Organophosphorus and Carbamate Pesticides. II. Degradation of Diazinon by Sodium Hypochlorite. Technical Report No. 7904. AD A081098.

Hegyeli, A.F., R.N. Shiotsuka, P.H. Gibbs, and B.A. Siggins. A Short-Term Toxicity Screening Test Using Photobacteria - A Feasibility Study. Technical Report No. 8002. AD A087035.

Highfill, J.W. Guidelines for Acute Toxicological Tests. Technical Report No. 7907. AD A079438.

Kardatzke, J.T., and J.W. Hodge. Evaluation of Manually Operated Sprayers. Technical Report No. 8004. AD B053907.

Kardatzke, J.T., and P.R. Gula, Jr. Engineering/Evaluation/Development Test of Pesticide Dispersal Unit Backpack, Portable. Technical Report No. 8010. AD B053993L.

Miller, R.D., C.I. Noss, A. Ostrofsky, and R.S. Ryczak. 1979. Rotating Biological Contactor Process for Secondary Treatment and Nitrification Following a Trickling Filter. Technical Report No. 7905. AD A074172.

Noss, C.I., and R.D. Miller. Rotating Biological Contactor Process for Secondary Treatment and Recarbonation Following Low-Level Lime Addition for Phosphorus Removal. Technical Report No. 8007. AD A084944.

Rosenblatt, D.H., J.C. Dacre, and D.R. Cogley. An Environmental Fate Model for Soil and Water Leading to Preliminary Pollutant Limit Values for Human Health Effects. Technical Report No. 8005. AD B049917L.

Ryan, E.E., W.J. Cooper, E.P. Meier, and D.H. Rosenblatt. Developments of FACTS Procedures from Bromine Chlorine Dioxide and Iodine in Aqueous Solutions. Technical Report No. 8003. AD A091590.

Memorandum Reports

Gula, P.R., and J.E. Shankle. Evaluation Summary and Test Protocol for MicroGen ED2-20A Skid Mounted Aerosol Generator. Memorandum Report No. 1-80.

Hodge, J.W., and J.E. Shankle. Chair and Stool Unit, Dental, Operating, Portable. Developmental Test (DTIIA). Memorandum Report No. 2-80.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Environmental Protection Container for Medical Supplies Test Report. Memorandum Report No. 3-80.

Hodge, J.W., and J.E. Shankle. X-Ray Film Processor, Dental, Portable, Field, Developmental Test Report (DTII). Memorandum Report No. 4-80.

Hodge, J.W. Sanitizer, Portable, Field, Special Forces. Memorandum Report No. 5-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary and Test Design Plan for the Mitty Moe Hand-Held Insecticide Sprayer. Memorandum Report No. 6-80.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Spineboards Test Report (DTI). Memorandum Report No. 7-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary and Test Design Plan for the Micro-Gen Model HCS1-2 AA Hand-Held Insecticide Sprayer. Memorandum Report No. 8-80.

Hodge, J.W., J.E. Shankle, and G.E. Toms. Field Combat Optometry Set, Test Report (DTII). Memorandum Report No. 9-80.

Bausum, H.T., and S.A. Schaub. Preliminary Aerosol Evaluation of Latrine Pumpout Devices. Memorandum Report No. 10-80.

Trybus, T. Conversion of Sodium Isoprophylmethyl-Phosphonate (NaIMP) to Isopropylmethyl-Phosphonic Acid (IMPA) Followed by Methylation. Memorandum Report No. 11-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary for the Micro-Gen Model M-16 Hand-Held Insecticide Sprayer. Memorandum Report No. 12-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary for the Micro-Gen Model S-4 Cart-Mounted Insecticide Sprayer. Memorandum Report No. 13-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary for the Micro West Mini-ULVA Insecticide Sprayer. Memorandum Report No. 14-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary for the Micron ULVA Fan Insecticide Sprayer. Memorandum Report No. 15-80.

Hodge, J.W. Delivery Systems for Chemical Warfare (CW) Medicaments, Phase I Test Report. Memorandum Report No. 16-80.

Gula, P.R., J.E. Shankle, and G.E. Toms. Evaluation Summary for the London Aire Model AE Electric Aerosol Generator. Memorandum Report No. 17-80.

Gula, P.R. Evaluation Summary and Test Protocol for KWH Model 66TT Motorized Backpack. Memorandum Report No. 23-79.

Gula, P.R. Evaluation Summary and Test Protocol for SOLO Port Model 423 Motorized Backpack. Memorandum Report No. 24-79.

Hodge, J.W. Evaluation of Manually Operated Sprayers (1-2 Gallons). Memorandum Report No. 25-79.

Hodge, J.W. Developmental Test (DTI) of Aidman's Bag, Task No. 838.00.047. Memorandum Report No. 26-79.

Gula, P.R. Evaluation Summary and Test Protocol for Arimitsu Model MD35DX Motorized Backpack. Memorandum Report No. 27-79.