

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO.

51-F-0019

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

2. HEADQUARTERS RESEARCH FACILITY (Name and Address, as registered with USDA, include Zip Code)

Technical Director
U.S. Army Edgewood Chemical Biological Center
Veterinary Services Team, Rsch & Tech Dir
Bldg E3150, ATTN: (b)(6),
Aberdeen Proving Ground, MD 21010-5424 (b)(7)(c)

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets if necessary.)

FACILITY LOCATIONS (Sites)

Building E3150

DEC 02 1999

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS FORM 7023A.)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report.)	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits		151	34	71	256
9. Non-human Primates					
10. Sheep	3				
11. Pigs					
12. Other Farm Animals					
Goats	6				
13. Other Animals					
Rats		381	52	200	633
Mice		45	6	26	77
Ferrets		1	11		12

ASSURANCE STATEMENTS

- Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- Each principal investigator has considered alternatives to painful procedures.
- This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL

(b)(6)
(b)(7)(c)

NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)

(b)(6)
(b)(7)(c)

DATE SIGNED

11-29-99

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PAIN NOT ALLEVIATED JUSTIFICATION
(RAT, MOUSE, RABBIT)

Two hundred (200) rats were used to test a militarily unique compound via the inhalation route to establish relative importance of exposure concentration and duration on the probability of toxic and lethal responses. Historically, in studies designed to generate lethal dose-response curves, it has been assumed that approximately half of the exposed animals would be expected to die and that this level of response may potentially be associated with pain, discomfort, and/or distress. For this study, the use of anesthetic/analgesic drugs during exposure may compromise the results of the proposed studies due to the fact that this class of compound may alter the respiratory minute volume and thus the dose of test compound that the animal receives. In addition, the expression of toxic signs may be altered by such treatment. Clement and Coperman (1984) suggest that chemical agent-induced convulsion and death are not necessarily associated with pain. Clement and Coperman (1984) have reported that Soman and Sarin induce a long-lasting naloxone-reversible analgesia in mice, which was not due to physical incapacitation.

Twenty-six (26) mice and 71 rabbits were tested with a previously untested chemical of military interest. The material was tested intravenously in mice and both intravenously and dermally in rabbits. The animals either died or suffered convulsive seizures during the test. These severe toxic signs could not be alleviated so that accurate test data could be collected. The data collected were important for several reasons: 1) to establish the toxicological profile of the chemical; 2) establish data to be used for human estimates; 3) establish data from which therapy/prophylaxis could be established; and 4) data would be included in material safety data sheets as a warning to potential users or in support to chemical staff in case of accidental exposures.

PAIN ALLEVIATED JUSTIFICATION
(RAT, MOUSE, RABBIT, FERRET)

The U.S. Army Edgewood Chemical Biological Center conducts a quality control/quality assurance program to ensure that rodents are free of adventitious murine viruses. The animals (36 rats, 14 mice, and 8 rabbits) were used for the health-monitoring program. These animals were anesthetized prior to bleeding and necropsy. Eleven (11) ferrets were anesthetized; anesthesia was required because animals need to be immobilized for testing.