SHAUGHNESSEY NO.

(41)
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 8-30-83 OUT 11-9-83

FILE OR REG. NO. 6704-EUP-14

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 11-9-82

DATE RECEIVED BY HED 8-29-83

RD REQUESTED COMPLETION DATE 11-22-83

EEB ESTIMATED COMPLETION DATE 11-15-83

RD ACTION CODE/TYPE OF REVIEW 746/EUP

TYPE PRODUCT(S): I, D, H, F, N, R, S Predacide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. W. Miller (16)

PRODUCT NAME(S) Compound 1080

COMPANY NAME USDI

SUBMISSION PURPOSE Request for extension of EUP

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.

Environmental Safety Review
Fish and Wildlife

100.0 Submission Purpose: The United States Department of the Interior, Fish and Wildlife Service, Denver Wildlife Research Center has requested an extension of their Experimental Use Permit No. 6704-EUP-14 for evaluating the use of the 1080 toxic collar. The Registrant applied for renewal on 11/9/82; however, the submission was not forwarded to EEB until 8/29/83.

100.4 Proposed EUP Program

100.4.1 Objectives - To continue evaluating the use of the 1080 toxic collar.

100.4.2 Duration/Date/Amount Shipped

The submission requests the EUP be extended until November 30, 1983. Due to the delay in processing this request, we would suggest, if issued, it be for one year from date of issuance. Information obtained from Mr. Guy Connolly, USDI's field research leader on this project, indicated that no more than 0.6 lbs of 1080 would be deployed in the field under this permit renewal.

100.4.3 Application procedures
See previous reviews

100.4.4 Target Pest
Coyote (Canis latrans)

100.4.5 Geographical Site Features

Study sites from information given by Mr. Connolly over the phone are to be located in the states of Idaho, Montana, and Texas. The proposed study sites within these states have not been identified; however, Mr. Connolly believed that most of the research would center in the following counties where tests have been conducted:

Texas
- Bosque
- Hamilton
- Travis

Idaho
- Custer

Montana
- Roosevelt
- Phillips
- Custer

Mr. Connolly also indicated he hoped the EUP would not restrict study sites to only these counties. He would like to have the flexibility to test the 1080 collar in other counties if a situation is found that appears the 1080 collar could be used to lower depredation.

100.4.6 Test Program Description/Features

The following information was obtained from Mr. Connolly on the proposed tests:

1) The total amount of treated area, (i.e., pastures where target flock, including collared animals, are placed) will not exceed 16,000 acres. The total amount of treated area at any one study site will not exceed 3,000 acres. Total sizes of areas where livestock are grazed may exceed these limits, but acreages on which target flocks are deployed will not. Posted areas may extend beyond pastures where collared live stock are placed. Any additional areas subsumed by such broader perimeter placements will not be included in calculating the acreage of treated areas.

2) The total number of toxic collars used in field trials under this permit will not exceed 500. The amounts of large (60 ml) and small (30ml) collars to be used may vary, but no more than 0.6 lbs (272g) of 1080 will be used.

3) The other aspects of the test to be conducted under this proposed extension would remain similar to the previous extension request. That is, test sites will be ranches that are having regular and recurrent coyote depredation. Following verification of kills sheep or goat flocks will be removed from the damage zone. A target flock of adults and their young will be selected from the ranch flock and toxic collars placed on some or all of these depending on the circumstances. The target flock will be returned to the pasture where killing was occurring. The remaining sheep will be kept out of the damage area (at least during the night) until one or more of the collared sheep is attacked by coyote(s). Collars would be closely inspected at intervals not to exceed 30 days, and would not be maintained longer than 180 days continuously on any one sheep or goat. Maximum number of collared animals per test would be limited to 60 in any one pasture, with a maximum of 120 collars per square mile of test area.

104.0 Discussion

The potential hazards posed to non-target wildlife from the use of 1080 in the toxic collar have been discussed in several previous reviews. The reader is referred to these reviews for an indepth discussion. In summary, the major hazards to non-target wildlife from the proposed use of 1080 appears to be limited to only after a collar is punctured. Following puncturing the greatest potential risks to non-targets are:

1) the potential secondary hazard to animals that scavenge remains of target coyotes,

2) hazards to animals that scavenge vomitus from poisoned coyotes, and

3) primary hazard to animals that scavenge carcasses of coyote killed collared livestock.

Theoretical calculations indicate that each of these sources of risk could be in the lethal range for either avian or mammalian scavengers that may be in an area of use. This coupled with the high probability that scavengers in the area would be attracted to these sources of hazards indicates potential risk.

However, as discussed in previous reviews, due to the scanty toxicity data, questions with the accuracy of quantitative estimates of 1080 residues in tissues, and limited tests evaluating secondary and primary poisoning, the severity of these problems cannot be fully assessed.

Until suggested research (see previous reviews) is completed to better define these hazards we believe that close monitoring of 1080 toxic collar trials would reduce potential impacts to a minimum. However, the registrant has argued (see letter dated 6/4/81) that frequent monitoring is neither feasible nor desirable, and that this current proposed field work is to document the efficacy and hazard of the collar as it would be used operationally.

While frequent monitoring of the use of the 1080 toxic collar may reduce its utility for operational control, how the collar is to be used operationally (what use restrictions would be imposed, if any, like monitoring) cannot be determined until the severity of hazards are better defined.

The registrant in their request for extension make the following comment:

> As you know the U.S. Fish and Wildlife Service applied for registration of this product (September 21, 1981) and this and other applications formed the basis for extensive Administrative Law Judge hearings. Pursuant to completion of these hearings the registration application has not been addressed by EPA. Thus we are unsure, if any additional research on the toxic collar will be required to support registration. When we are advised by EPA of the status of our application we will revise our research program as required and proceed with submission of additional data.

From this statement, the registrant seems to be indicating they would entertain revising their research; something we recommend. Then depending on the results of this work they could proceed with trials designed to evaluate operational use.

While we feel this approach would be the most prudent, the proposed studies, due to the limited number of collars, the relative small number of tests, and the relative limited acrerage involved in any one test, does not appear to pose a significant hazard to nontarget wildlife species, except for endangered species. That is, with the stated exception even if non-target populations are reduced on or around ranches where collars are used, populations should recover through reinvasion and other population adjusting factors.

However, the program could pose a hazard to endangered species, if any of several listed species occurr in areas where tests are to be conducted. In the states where tests are proposed the following species could be at risk:

Grizzly Bear
Gray Wolf
Bald Eagle
Red Wolf
Ocelot
Jaguarundi
Northern Swift Fox

This "may effect" situation can be avoided by prohibiting the use of 1080 collars in the range of these species.

Therefore, to insure our list is accurate and to obtain definitive descriptions of the known ranges of these species a formal consultation with the Office of Endangered Species is warranted.

107.0 Conclusions

EEB has completed a review of the requested extension of USDI's EUP to evaluate the use of the 1080 toxic collar to reduce depredation by coyotes. While we believe the registrant would be well advised to focus their research efforts on tests designed to better define hazards of the 1080 collar, we conclude that the program should not significantly impact non-target species with the possible exception of endangered species. If these tests are conducted in the range of any of several endangered species a "may effect" situation could exist. This situation can be avoided through use restrictions prohibiting these trials in the range of these species. However, a final recommendation on this point must be deferred until consultation with the Office of Endangered Species is completed.

Ed Fite 11/14/83
Ed Fite
Wildlife Biologist

Norman Cook 11.14.83
Norm Cook
Section Head #2

Clayton Bushong 11/15/83
Clayton Bushong, Chief
Ecological Effects Branch, HED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

U.S. Department of the Interior
Fish and Wildlife Service
Office of Endangered Species
Washington, D.C. 20240

Attention: Mr. John Spinks

Re: Formal Sec. 7 Consultation Request on EPA Experimental Use Permit - 6704-EUP-14 for use of the 1080 Toxic Collar

The Ecological Effects Branch has recently reviewed a submission from the U.S. Fish and Wildlife Service requesting an extension of an Experimental Use Permit to allow further testing of the 1080 Toxic Collar in three states, Idaho, Montana, and Texas. We have concluded, due to requested program modifications, that if these tests are conducted in the range of several listed species a "may effect" situation would exist. Therefore we are requesting from your office a biological opinion to help clarify potential impacts of the experimental program to endangered species and to obtain a definitive description of known ranges of endangered species potentially at risk.

To assist you in formulating your biological opinion, we have included a copy of this Branch's review of the proposed Experimental Program and other related documents. If you have any questions concerning this consultation, please contact Rick Stevens (557-7370) or Ed Fite (557-7600).

Sincerely,

Clayton Bushong, Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769)