DATE IN: 11-14-91  OUT: 9/2/92

CASE #: 015757
SUBMISSION #: S406651
ID #: 056228-00022

DATE OF SUBMISSION 11-05-91
DATE RECEIVED BY EFED 11-14-91
SRRD/RD REQUESTED COMPLETION DATE 03-01-92
EEB ESTIMATED COMPLETION DATE 03-01-92
SRRD/RD ACTION CODE/TYPE OF REVIEW 400 - Data-Misc
MRID #(S)

DP TYPE 001 - Submission Related Data Package
PRODUCT MANAGER, NO. R. Forrest (14)
PRODUCT NAME(S) Compound 1080
TYPE PRODUCT F R I N H D Predacide
COMPANY NAME USDA/APHIS
SUBMISSION PURPOSE Review study on hazards associated
INCLUDE USE(S) with use of livestock protection
COMMON CHEMICAL NAME Sodium fluoroacetate
ECOLOGICAL EFFECTS BRANCH

Chemical: Compound 1080, Sodium fluoroacetate

100.0 Purpose of Submission

The Registrant (USDA/APHIS) has submitted information on non-target hazards resulting from the use of the 30 ml Livestock Protection Collar (LPC) that was collected as a result of its use in Montana, Wyoming, New Mexico, South Dakota and Texas. This information was requested by R. Felthousen in a meeting with USDA/APHIS representatives.

101.0 Data Summary

The USDA/APHIS has submitted a data summary on the use of the livestock protection collar during FY's 88, 89 and 90 as well as a report on the field and laboratory research conducted from 1978 to 1980 (See attached summary sheet as well as report). The major findings from the actual use are:

- the contents of a small portion (13%) of the collars placed on livestock were actually released into the environment. The total amount of 1080 involved in the release (assuming that each collar was completely emptied) was 88.2 grams. This is an average of 29.4 grams/year over the four state area where the collars were used (none used in South Dakota).

- there were no reports of deaths of non-target animals associated with the use of the LPC collars during this period.

- only limited scavenging occurred on coyote carcasses by 2 species of vulture and a caracara.

- livestock carcasses were scavenged by vultures, magpies, ravens, red-tailed hawks, caracaras, skunks and coyotes but none of these non-target species were poisoned as a result.

- scavenger species tended to feed mainly on viscera and muscle of hind quarters.

- of the 13% (294) of the collars, that had there contents released during the time period, only 5% (108) were punctured by coyotes.

102.0 Discussion

The USDA/APHIS has submitted information on the actual use of the livestock protection collar from 4 different
states over a period of three years (1988-90). Results indicate that during this period of time, exposure to non-target organisms was extremely low and that even when scavenging animals were exposed, the hazards did not exceed the Agency's unacceptable risk criteria for ecological effects. Based upon the results of these monitoring reports as well as the residue analysis results on the total amount of 1080 likely to be released into the environment, the EEB believes that the use of the Compound 1080 LPC will not exceed the Agency's unacceptable risk criteria for non-target wildlife species.

However, the EEB still has concerns about the use of the collar in areas where endangered species may be affected. As such, restrictive stipulations relative to the use of the collar in currently occupied habitats for the grizzly bear, grey wolf, and bald eagle must be maintained.

The EEB also believes that the monitoring requirement is an important tool governing the proper use of the LPC as well as insuring the prompt detection of any adverse ecological effects if they do occur. As such, the EEB strongly recommends that this stipulation be maintained on the label.

Finally, in the past the EEB has repeatedly made comment relative to the pasture size where use of the collar is permitted, the EEB maintains that the 10,000 square acre requirement amounts to an open-range use and that the pasture stipulation be reduced to 2,500 acres regardless of the dominant topography and vegetative cover.

Richard W. Felthousen, Wildlife Biologist
EFED/EEB

Allan Vaughan, Acting Head-Section 2
EFED/EEB

Doug Urban, Acting Chief
EFED/EEB