



EEB
FILE

215838
RECORD NO.

105001
SHAUGHNESSEY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 3/9/88 OUT APR 5 1988

FILE OR REG. NO 241-241

PETITION OR EXP. NO

DATE OF SUBMISSION: 2/29/88

DATE RECEIVED BY HED: 3/7/88

RD REQUESTED COMPLETION DATE: 4/4/88

EEB ESTIMATED COMPLETION DATE: 4/4/88

RD ACTION CODE/ TYPE OF REVIEW: 177

TYPE PRODUCT(S): INSECTICIDE/NEMATICIDE

ACCESSION NUMBER(S):

PRODUCT MANAGER: W. MILLER (16)

PRODUCT NAME(S): Terbufos (COUNTER 15G)

COMPANY NAME: American Cyanamid Company

PURPOSE OF SUBMISSION: Registrant response/proposals
concerning avian field studies.

SHAUGHNESSEY NO. CHEMICAL AND FORMULATION %A.I.

105001 Terbufos 15



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

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: American Cyanamid Company request for extension of report due dates for terbufos terrestrial field testing.

Record No. 215838

FROM: David Warburton, Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

THRU: Doug Urban, Section Head 3
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

THRU: Harry Craven, Acting Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

TO: William Miller, PM 16
Insecticide-Rodenticide Branch
Registration Division (TS-767C)

This is in response to American Cyanamid Company's request (letter dated 29 February 1988) for: 1) an extension of reporting due dates as required by the Data Call-In (3(c)(2)(B)) Letter of 3 June 1987; and 2) a meeting with EEB personnel to discuss the Level II terrestrial field study for terbufos. EEB notes the registrant's concerns in their letter, but does not believe an extension in data reporting due dates is warranted. The registrant has had sufficient opportunity and input from previous EEB reviews and the Terrestrial Field Studies Guidance Document to plan and implement a study assessing effects of terbufos to non-target populations. Further, EEB questions the basis for the registrant's extension request. It is not unreasonable to request that during 1988 the registrant address the problem of study plot replication (identified in EEB's 21 March 1988 review of the registrant's field study protocol), conduct baseline (pre-trial) censuses (also identified in EEB's protocol review), and report on this progress by 31 December 1988 (the first annual report due date noted in the Data Call-In Letter, 3 June 1987). EEB

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recognizes that actual pesticide application and non-target population effects monitoring will not be initiated until spring 1989, but this field schedule may also be accomodated by the existing reporting due dates requirement.

EEB is willing, however, to discuss the field study design at a meeting between American Cyanamid, RD, and EEB, as suggested in EEB's 21 March 1988 review of the field study protocol. EEB recommends that the registrant's contractor for the study also be present at the meeting.



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

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MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Protocol review of American Cyanamid terrestrial field study (Level II) for terbufos.

Record No. 203351

FROM: David Warburton, Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

Dail Walton
3/13/88

THRU: Doug Urban, Section Head 3
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

Douglas J. Urban
3/20/88

THRU: Harry Craven, Acting Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

Harry Craven
3/20/88

TO: William Miller, PM 16
Insecticide-Rodenticide Branch
Registration Division (TS-767C)

Attached is EEB's review of the Level II terrestrial field study protocol (Protocol No. 981-86-101.1) for terbufos use in corn submitted by American Cyanamid Company (Record No. 203351). Please note, this is the third attempt by the registrant to develop an adequate field study to quantify the impacts of terbufos to non-target wildlife species. Previously, EEB provided comments, suggestions, and guidance as to how such a study should be conducted. It is apparent from this proposal that the registrant still has not developed an adequate study design to meet Agency requirements for a definitive study. Proposed study sites (number and locations of plots), replication, census methods, sample size, and statistical analysis are all inadequate to address EEB concerns of terbufos effects on mortality, reproduction, and survival of non-target populations.

Also note that the Ecological Effects Chapter of the Terbufos (FRSTR) Registration Standard identified that field

testing must also be done to support terbufos use on sorghum (General Data Requirements, Table A). No protocol for field studies in sorghum has been submitted to date. This requirement is important due to the higher permitted use rates, and therefore greater potential for adverse effects to non-target organisms, in sorghum.

Specific aspects of these and other issues are discussed in the attached review. Should the registrant have further questions or comments after receiving the review, a meeting between EEB, RD, and American Cyanamid is suggested.