108501
SHAUGHNESSY NO.

45
REVIEW NO.

EE BRANCH REVIEW

DATE: IN 9-30-85 OUT 11-20-85

FILE OR REG. NO. 241-245

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 7/15/85

DATE RECEIVED BY HED 9/24/85

RD REQUESTED COMPLETION DATE 11/25/85

EEB ESTIMATED COMPLETION DATE 11/18/85

RD ACTION CODE/TYPE OF REVIEW 660

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. R. Taylor(25)

PRODUCT NAME(S) Prowl Herbicide

COMPANY NAME Am. Cyanamid

SUBMISSION PURPOSE Registrant response to registration standard

SHAUGHNESSY NO.	CHEMICAL & FORMULATION	% A.I.
108501	pendimethalin	

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

NOV 26 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Data Waiver Request from American Cyanamid on Prowl [241-245]

THRU: Michael Slimak, Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769)

TO: Robert Taylor, PM-25
Registration Division (TS-767)

American Cyanamid disagrees with the need to conduct an aquatic residue monitoring study in rice fields treated with Prowl herbicide which was a requirement imposed by the pendimethalin registration standard. American Cyanamid contends that residue data previously submitted (Accession Number 099889) are sufficient to negate any ecological concerns for rice uses of Prowl herbicide. The Ecological Effects Branch responds that the study as required by the registration standard is still necessary. The data in Accession Number 099889 are unacceptable for various reasons, including no description of the study site, no description of flood water level or proportion to treated soil area, and no inclusion of receiving water residues. The data do indicate that pendimethalin residues are as high as 50 ppb in plot water when fields are treated at twice the recommended rate and flooded 8 days after treatment. Life-cycle toxicity data with finfish indicate that residues as low as 10 ppb adversely affect reproduction. EEB is concerned that residues in receiving waters could exceed those which impair finfish reproduction. This concern arises from the fact that pendimethalin is relatively stable in aquatic environments, is applied aerially to rice fields (which could allow unacceptable drift to adjacent waters), flooding (flushing) of fields is recommended within 7 days of treatment and could commence almost immediately, and estimated concentrations (J. Reinert, EAB) in receiving waters are at 7 ppb. To negate EEB concerns an aquatic residue study which addresses both drift exposure and drainage in receiving waters is required. A protocol for the study should be approved by EEB prior to initiation of the investigation.

Les Touart,
Fisheries Biologist
Ecological Effects Br.

2