To Be Assigned
SHAUGHNESSEY NO.

REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 10/14/82 OUT 12/27/82

FILE OR REG. NO. 279-EUP-OG

PETITION OR EXP.

DATE OF SUBMISSION October 1, 1982

DATE RECEIVED BY HED November 13, 1982

RD REQUESTED COMPLETION DATE January 3, 1983

EEB ESTIMATED COMPLETION DATE December 27, 1982

RD ACTION CODE/TYPE OF REVIEW 700 / EUP / New Food Uses

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. R. Taylor (PM25)

PRODUCT NAME(S) FMC 57020

COMPANY NAME FMC Corporation

SUBMISSION PURPOSE EUP for use as a preplant incorporated, pre-emergent, or post-emergent herbicide on soybeans.

SHAUGHNESSEY NO.	CHEMICAL & FORMULATION	% A.I.
To Be Assigned	2-(2-Chlorophenyl) methyl-4, 4-dimethyl-3-isoxazolidinone	47.06
	Inert	5.94

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100. Pesticide Use

This application requests the use of 600 gallons of FMC-57020 4 EC to treat 800 acres of soybeans for each of the two (2) years of the permit.

100.2 Application Rates / Use Directions

See attached experimental label.

100.3 Precautionary Labeling

Do not contaminate water by cleaning of equipment or disposal of wastes [See proposed changes in Section 107.5].

100.4 Proposed EUP Program

See attached copy of Section G for a complete list of EUP participants, FMC contacts, details of proposed program, and program objectives.

100.5 Duration of Permit

The registrant has requested a two (2) permit year (March 1983 to March 1985).

103.0 Toxicological Properties

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: Acute oral bioassay (EPA accession number 248475)

Test organism: Bobwhite quail (Colinus virginianus)

		(95% C.I)
Results:	Male LC_{50} = >2510 mg/kg	N.A.
	Female LC_{50} = >2510 mg/kg	N.A.

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: Acute oral bioassay (EPA accession number 248475)

Test organism: Mallard duck (Anas platyrhynchos)

		(95% C.I)
Results:	Male LC_{50} = >2510 mg/kg	N.A.
	Female LC_{50} = >2510 mg/kg	N.A.

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103.0 Toxicological Properties (Continued)

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: Acute oral bioassay (EPA Accession No. 248475)

Test Organisms: Mallard duck (Anas platyrhynchos)

	(95% C.I.)
Results: LC_{50} > 5620 ppm	N.A.

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: 8-day avian dietary study (EPA Accession No. 248475)

Test Organism: bobwhite quail (Colinus viginianus)

	(95% C.I.)
Results: LC_{50} = > 5620 mg/kg	N.A.

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: 96-hour acute bioassay (EPA Accession No. 248475)

Test Organisms: Rainbow trout (Salmo gairdneri)

	(95% C. I.)
Results: LC_{50} = 19 mg/l	(19 -22 mg/l)

103.0 Toxicological Properties (Continued)

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: 96-hour acute bioassay (EPA Accession No. 248475)

Test Organisms: bluegill sunfish (Lepomis macrochirus)

(95% C.I.)

Results: LC_{50} = 34.0 mg/kg (29 -40 mg/l)

Chemical: FMC 57020

Formulation: Technical (88.8% A.I.)

Test Type: 48-hour static bioassay (EPA Accession No. 248475)

Test Organism: Daphnia magna

(95% C.I.)

Results: LC_{50} = 5.2 mg/l (4.4 - 6.1 mg/l)

104. Discussion

The registrant (FMC Corporation) is requesting the experimental - use of FMC-57020 4EC as pre-plant incorporated, pre-emergent, or post emergent herbicide on soybeans. States of use, acreage to be treated, and amount of chemical to be used at each location are shown in the attached copy of Section G.

Because of the limited acreage requested and the relatively low acute toxicity of the active ingredient in FMC-57020, the labeled use of this herbicide is not expected to adversely impact non-target organisms.

The Ecological Effects Branch (EEB) does, however, suggest that the likelihood of non-target exposure can be further reduced by amending the proposed label to included the precautionary statements proposed in Section 107.5

104.1 Endangered Species Consideration

The available data indicate that the experimental use of FMC-57020 on soybeans should not pose an acute hazard to federally endangered or threatened species. The are no federally protected plants known to occur in areas containing row crops.

107.0 Conclusions

107.5 Labeling

EEB recommends that the registrant's proposed EUP label be amended to include the following precautionary statements:

"Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes. Keep out of lakes, streams, or ponds."

107.7 EEB's Findings

Based upon the available data, EEB concludes that the proposed EUP provides for minimal exposure and no acute risks to non-target organisms.

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Hazard Evaluation Division (TS-769)

Date 12/27/82

Charles A. Bowen for

Raymond W. Matheny
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Date 12/27/82

Norman Cook for 12.28.82

Clayton Bushong, Chief
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