

ENVIRONMENTAL IMPACT ANALYSIS REPORT

FAP 2174

- A. Date: March 13, 1979
- B. Name of Petitioner: Kelco, Division of Merck & Co., Inc.
- C. Address: c/o Markel, Hill & Byerley  
1625 K Street, N.W.  
Washington, D.C. 20006
- D. Environmental Information:

1. The Proposed Action

The proposed action is an amendment to Section 573 of Title 21 of the Code of Federal Regulations to permit the use of food additive "Xanthan Gum" in animal feed. Possible environments affected if the proposed action is taken include: air, water, and quality of life.

2. The Probable Impact of the Proposed Action on the Environment

- a. Probable adverse and beneficial environmental effects of the use, consumption and disposal of the article that is the subject of the action.

We can see no possible adverse environmental effects due to the slight increase in use, consumption or disposal of xanthan gum, as a result of the proposed action. Xanthan gum is presently in wide use as a direct human food additive and in a variety of industrial applications. Any increase in the use of xanthan gum as a result of the proposed action will be slight in relation to the present total xanthan gum use. It should be kept in mind that xanthan gum does, in fact, occur in nature, most commonly on cabbage plants. The product is biodegradable to the non-toxic substances carbon dioxide, water, and sodium and potassium salts.

Because of its function as a feed stabilizer, emulsifier and thickener, any additional quantities of natural resources or energy consumed are off-set by energy and material savings in the resulting feed preparation.

Beneficial environmental effects of the proposed action are:

- (1) possible reduced energy use by feed manufacturers and users since the use of xanthan gum in liquid feeds makes them easier to pump and reduces the need for circulation pumps to keep insoluble materials in suspension, (2) possible reduction in feed waste because of increased feed stability, (3) possible increased employment and wage opportunities through increased production and sales.

Following are the anticipated impacts in specific environmental areas as noted in the EIAR Guidelines:

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- (1) Pollution: None  
Biodegradable to carbon dioxide, water, and potassium and sodium salts.
- (2) Solid and Liquid Wastes: None
- (3) Toxic Substances: None
- (4) Populations: No effect
- (5) Human Values: No effect
- (6) Food Contamination: Not applicable. Subject is an approved food additive.
- (7) Natural Resources: Insignificant additional use offset by reduced feed waste.
- (8) Energy: Possible reduction in use.

b. Measures taken to mitigate potential adverse environmental effects. Because no potential adverse environmental effects are foreseen, no mitigating measures are necessary.

c. Environmental impact of manufacturing processes.  
The article which is the subject of this action, xanthan gum, has been manufactured for some nineteen (19) years in full compliance with all applicable Federal, State and local emission requirements. These include air and water emission standards.

The applicable Federal, State and local emission requirements that are being complied with are as follows:

FEDERAL

Air:

- (1) National Emission Standards for Hazardous Air Pollutants
- (2) OSHA Subpart Z, Air Contaminants, 29 CFR 1910.1000

STATE (Oklahoma)

Air:

Oklahoma Air Emission Standards.

- (1) Regulation No. 8 - Particulate matter from Industrial Operations
- (2) Regulation No. 16- Sulfur oxides
- (3) Regulation No. 18- Nitrogen oxides

LOCAL

Water:

All water effluents are discharged to the Okmulgee, Oklahoma, Municipal Waste Treatment facility in compliance with that organization's requirements.

3. Probable adverse environmental effects that cannot be avoided: None.
4. Alternatives to the proposed action:

Denial of the proposed admendment.

The benefits of this possible alternative to the proposed action is an unchanged existing environment.

The risk of this alternative is that the public will be denied the benefits of the technological innovation involved.

These include: (1) possible energy savings as noted above, (2) possible lower food prices due to more efficient use of feeds, (3) possible reduction in waste feeds.

5. Relationship between local short-term use of the environment and the maintenance and enhancement of long-term productivity. Short-term gains from the proposed action are reflected in improved feed stability. The only possible long-term environmental loss would be from an insignificant additional expenditure of energy and an insignificant additional consumption of raw materials.
6. Irreversible and Irretrievable Commitment of Resources as a Result of the Action.

As noted in paragraph 5, the only irreversible and irretrievable resources consumed would be insignificant additional energy and raw materials. These are essentially offset by the noted benefits.

7. Known Objections to Proposed Action by Other Agencies, Organizations or Individuals.

None

8. Explanation of Why Proposed Action Should be Taken Prior to Circulation of Environmental Impact Statement, If Required

No environmental impact statement requirement anticipated.

9. Risk-Benefit Analysis

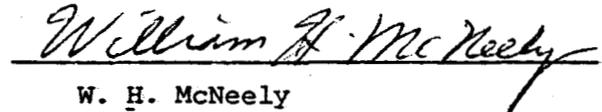
Anticipated Benefits: (1) Improved uniformity and stability of liquid feed products, (2) Improved feed processing methods, (3) Lower potential feed waste, (4) Possible lower energy consumption by feed manufacturers and users.

Anticipated Risks: (1) Possible slight increase in energy use in the manufacture of xanthan gum, (2) Possible slight increase in raw material consumption in the manufacture of xanthan gum.

Since no additional risks to the environment will arise because of the proposed action, it is apparent that the potential benefits exceed the potential risks.

E. THE UNDERSIGNED PETITIONER CERTIFIES THAT THE INFORMATION FURNISHED IN THIS ENVIRONMENTAL IMPACT ANALYSES REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF HIS KNOWLEDGE.

March 13, 1979



W. H. McNeely  
Vice President, Research & Development

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