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GENERAL ELECTRIC

REAL ESTATE
AND CONSTRUCTION
OPERATION

GENERAL ELECTRIC COMPANY, ONE RIVER ROAD, SCHENECTADY, NEW YORK 12345
Phone (518) 385-2211

November 27, 1979

Mr. David Wood
Market Manager - Heat Transfer and Process
Monsanto Industrial Chemicals Co.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

Dear David:

Thanks for sending me a copy of Monsanto's response to the PCB inquiries from Congressman Eckhardt. Enclosed are the answers that GE submitted to the questions asked of us.

Very truly yours,

Dr. E. L. Simons, Manager
Environmental Protection Operation

ELS:emp

ENC:

SERVING PROGRESS

MONS 079178

GENERAL ELECTRIC RESPONSE

TO QUESTIONS FROM

CONGRESSMAN BOB ECKHARDT

IN LETTER OF OCTOBER 24, 1979

November 7, 1979
Pittsfield, Massachusetts

MGNS 079179

GENERAL ELECTRIC RESPONSE TO QUESTIONS IN OCT. 24, 1979 LETTER

1. WHEN DID GENERAL ELECTRIC STOP MAKING PCB TRANSFORMERS FOR COMMERCIAL DISTRIBUTION? WHAT WERE THE REASONS FOR THAT CESSATION?

General Electric stopped making PCB transformers for commercial distribution in April, 1977, more than two years ahead of the date set by the Federal Toxic Substances control Act for cessation of products containing PCBs (see Attachments 1-A, B, C).

We took this step then because (1) it became obvious that federal prohibitions against any use of PCBs were inovitable and (2) our in-house development work had proceeded to the point where the use of silicone as a safe and suitable substitute appeared to be practical.

2. DO YOU MAINTAIN A LIST OF THOSE TO WHOM YOU SUPPLY PCB TRANSFORMERS? IF SO, AFTER THE AMENDED DISPOSAL AND MARKING RULE WENT INTO EFFECT ON AUGUST 2, 1978, WHAT EFFORTS WERE MADE TO NOTIFY PAST CUSTOMERS OF THE POTENTIAL DANGER POSED BY PCB TRANSFORMERS? WHAT EFFORTS IF ANY HAVE BEEN MADE TO ASSIST PAST CUSTOMERS IN THE DISPOSAL OF PCB TRANSFORMERS? PLEASE PROVIDE ANY AND ALL DOCUMENTATION OF SUCH NOTICE OR ASSISTANCE.

We have lists of transformer customers. Once the potential hazards of PCBs became known, we communicated to our customers via our field sales personnel.

As early as May 11, 1970, we notified several thousand utility and industrial customers that PCBs may pose problems in the environment (see Attachment 2-A). To that correspondence we attached a copy of a letter from the Monsanto Company, the sole domestic manufacturer of PCBs. The Monsanto letter, which is included in Attachment 2-A, called attention to newspaper and magazine articles which contained some of the initial descriptions of potential environmental hazards from PCBs. In the letter, Monsanto urged care in the application, processing and disposal of the chemical.

Subsequently, PCB-filled transformers shipped from General Electric bore cautionary labels similar to the ones attached to this report (see Attachment 2-B).

Through our field sales personnel, we have kept customers posted on developments regarding our exiting the PCB business (Attachment 2-C), potential contamination problems and changes in the EPA rules on PCBs (Attachment 2-D).

(CONTINUED)

2. (continued)

Additionally, the American National Standards Institute in 1974 published guidelines for the handling and disposal of transformer-grade askarels containing PCBs (see extract Attachment 2-B). These standards were widely distributed throughout the electrical industry.

3. ONCE THE DISTRIBUTION BAN BECAME EFFECTIVE ON JULY 2, 1979, WHAT PRECAUTIONS WERE TAKEN TO ENSURE THAT EQUIPMENT USED IN THE MANUFACTURING PROCESS WAS EITHER DE-CONTAMINATED OR REPLACED?

Once we exited the PCB business, we began a total program to remove the entire system that had been used for the filtering, handling and storage of Pyranol and Pyranol products at our Pittsfield, Massachusetts, and Rome, Georgia transformer plants. Pyranol was the GE trade name for the insulating fluid containing PCBs.

It involved the removal of Pyranol holding and return tanks, and in many cases the equipment had to be cut in smaller pieces for shipment to EPA-approved or approved landfills. In other cases, a cleaning facility was set up where PCB-contaminated metals were cleaned with approved chemical solutions before shipment to smelters.

Additionally, we began a program in key target areas of both plants aimed at eliminating possible contamination of material or equipment which may have come in contact with PCBs. This involved digging up pipes, drains and removing thousands of pounds of contaminated materials, flooring and earth and disposal in legal, approved ways. (see Attachment 3-A-3-I).

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3. (continued)

In our Pittsfield plant, for instance, we cleaned and relined more than 2,000 feet of piping and used unique technology, inserting polyethelene liners. In our Rome plant we cleaned and rehabilitated some 9,000 feet of pipe and replaced other piping.

The Pittsfield and Rome abatement efforts, exceeded $4 million in cost.

4. WHAT MEANS WERE USED TO DISPOSE OF CONTAMINATED EQUIPMENT, TOOLS, RAGS, ETC., AS WELL AS PCB FLUIDS? DOES GENERAL ELECTRIC HAVE READY ACCESS TO AN APPROPRIATE DISPOSAL AREA FOR SUCH ITEMS? WHAT ARE THESE AREAS?

Solid Pyranol wastes have over the past decade been shipped to various EPA-approved chemical landfill sites, including the following:

-Texas Ecologists, Robstown, Texas.

-Nuclear Engineering Company, Inc., Sheffield, Illinois.

-Chem-Trol Company, Model City, N. Y.

-Newco Chemical Wastes Systems, Inc., Niagara Falls, N.Y.

-Chemical Waste Management, Emelle, Alabama.

There are no approved liquid-disposal facilities at the present time anywhere in the U. S.

From 1973 until the time certain EPA restrictions became effective in 1978 and 1979, we disposed of liquid Pyranol wastes in an EPA-approved high-temperature incinerator at the Pittsfield, Massachusetts site.

New regulations concerning incineration of materials containing PCBs were contained in the Toxic Substances Control Act of 1976. Because of these new burning regulations our ability to destroy liquid Pyranol was limited after July 1978 and totally halted after July 1979.

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4. (continued)

In the past, our Rome plant sent liquid wastes to Monsanto Company in Saugus, Illinois; Nuclear Engineering Company, Inc., in Sheffield, Illinois, and Rollins Environmental in Baton Rouge, Louisiana.

With no place to send such liquid wastes today, they are stored on site at the Pittsfield and Rome plants in EPA-approved facilities.

5. WHAT MEASURES WERE ADOPTED TO PROTECT WORKERS EXPOSED TO THESE MATERIALS OR TO PCBS OTHERWISE BOTH PRIOR TO AND FOLLOWING THE BAN?

As a precaution, since 1970, General Electric employees who were engaged in handling or disposal of PCB products or materials and facilities worked under specific, written instructions. These included safe handling procedures and housekeeping instructions (see Attachment 5-A and 5-B). During 1977-1979 decontamination programs, plant engineering standards were issued covering personnel practices and work methods necessary for the safe handling and disposal of Pyranol contaminated piping, equipment and facilities (see Attachment 5-C). Among the extra-precautionary steps required were the use of respirators, rubber or approved plastic gloves and special disposable clothing.

6. WHAT DIELECTRIC FLUID IS BEING USED TO REPLACE PCBS?

We have yet to find a material that duplicates PCBs unique dielectric characteristics and nonflammability. However, since April, 1977, in place of PCBs we have used (1) silicone liquid and (2) R-113, also known as trichlorotrifluoroethane.

Even before the potential environmental impact of PCBs became known, General Electric sought to find a substitute that would have the necessary fire safe and electrical characteristics. Between the 1930s and the recent decision to use silicone and R-113, more than 100 potential substitutes were examined in depth and found to be inadequate for use as a transformer insulating fluid.

It's important to understand that a primary concern in finding a substitute was the potential for fire in transformers located where people congregate such as buildings, schools, hospitals and on railroad commuter cars. The earlier potential substitutes did not offer the necessary protection. General Electric would not market a substitute insulating fluid until the Company was sure that the new material was safe and would not merely replace one environmental problem with another.

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6. (continued)

The safety aspects of PCBs were recognized by the federal government's own Interdepartmental Task Force on PCBs, which in 1972, called for continued use of the chemical in transformers (see Attachment 6).

7. DOES GENERAL ELECTRIC ENGAGE IN THE SERVICING AND/OR REBUILDING OF PCB TRANSFORMERS?

General Electric services PCB-transformers under strict operating procedures primarily at certain service shops operated by our Apparatus Service Division or at the customer's site.

In compliance with new EPA regulations we no longer can rebuild a Pyranol or PCB transformer. The EPA's regulations of July 2, 1979 prohibit removal of core and coils which precludes rewinding or rebuilding.