Performance Review 18
1970 Objectives

16 Polychlorinated Biphenyl Environmental Problem
28

1. Objective: Reduce and effectively control the PCB content of all effluent from Monsanto plants. All plants to achieve 50 ppb in effluent by January, 1971. All plants to achieve target of 10 ppb by September, 1971

Status: The Newport, Anniston and Sauget plants have reduced losses considerably. Losses are still above the 50 ppb target primarily because of prior years' contamination of soil, sewers and the like as well as improperly maintained Therminol heating systems. At Sauget tank truck washing is a prime source of contamination. Measures have been taken to control disposal of the wash liquids. At year end Sauget reports 177 ppb, Anniston reports 321 ppb and Newport reports 54 ppb. The 10ppb target can be achieved in 1971 with continued tightening of control and probably with the installation of carbon absorption equipment

DSW 333141

Objective: Inform customers of the PCB problem and the importance of preventing environmental pollution both at their plants or by their products. Inform customers in U.K, Canada and Japan by May 1, 1970; Europe and South America as indicated.

Status: Customers in Canada and the U.K were informed by July 1, 1970. Customers in Japan, Europe and South America have not been informed pending coproducers actions.

3. Objective: To assure tight control on Aroclor usage the use of distributors by the Plasticizers Group will be discontinued by September, 1970.

Status: Achieved. Distributors were informed in May, 1970 that they would not be selling Aroclors after August 30, 1970.

4 Objective: Replace Aroclor 1242 in NCR paper coating with monoisopropylbiphenyl for U.S. applications by May 1970 and with HB-40 for U.K. applications by July, 1970.

DSW 333142

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Status: U.K application achieved. U.S. application on target.

5. Objective: Develop acceptable substitutes and complete conversion from Aroclor 1254 and Aroclor 1260 in sealants and coatings by August 31, 1970.

Status: Achieved

6. Objective: Develop acceptable substitutes and selectively phase out of persistent Aroclor containing industrial fluids Complete 20% August 1970, 40% November 1970, 100% April, 1971.

Status: On target. Pydraul 312 and Pydraul 150 pose major problems

7. Objective: Discontinue sale of polychlorinated biphenyl for cutting oils, pesticide extender, medicinal, dental and cosmetic use by June, 1970

Status: Achieved

DSW 333143

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8. Objective: Develop reliable analytical procedures for determining PCB content of liquids, gases and solids. Continue to refine methodology until we reach a level of competence which will provide data whose accuracy will not be challenged. Complete by July 1, 1970

Status: Achieved.

9. Objective: Continue biodegradation work of existing and substitute products at both Ruston and St Louis to establish degree of degradation possible and optimum conditions required. Complete by October 1, 1970

Status: Work continuing and expanding. Program for 1971 will be better defined.

10. Objective: Evaluate alternate methods of disposal by incineration - Monsanto operated or contract Complete by July 1, 1970

Status: Decision was made to install a scrap liquid incinerator at Sauget. Performance of this unit will help determine need for additional units, Monsanto operated or contract operated.

DSW 333144

11. Objective: Continue the work at Anniston, Krummrich and Dayton on the removal of PCB from water streams. Complete by September, 1970

Status: Results at Krummrich and Dayton although technically successful were determined to be too costly to be of practical value. Work at Anniston on carbon adsorption, flocculation, settling and filtration is highly promising. Engineering evaluation will be completed in first quarter 1971.

12. Objective: Evaluate the merits of applying for a government grant to install a prototype unit for removal of PCB's from plant effluents at one of our plants. Complete by September 1, 1970

Status: The apparent success of the Anniston studies utilizing fairly well known technology led to a decision not to seek a grant for this application.

13 objective: Pursue possible contribution by Monsanto Enviro-Chem Systems, Inc. to disposal of Aroclor wastes. Complete by September 1, 1970

Status: A test run was completed in early December, 1970 which demonstrated that solid wastes contaminated with Aroclors could be successfully destroyed by pyrolysis-incineration-scrubbing techniques. Equipment designers, including Enviro-Chem, have been requested to submit bids for a unit which will probably be located at Sauget, Ill.

DSW 333146

14. Objective: Develop methods for reclaiming and reusing off-grade fluids containing PCB. Develop processing procedures by May 1, 1970, modify existing equipment at Krummrich plant by January 1, 1971.

Status: Some reclaiming has been achieved in existing equipment. Reclaimed material was used in non-electrical applications. Appropriation for further modifications to the equipment has been approved. Completion of field work now scheduled for June, 1971 completion.

Objective is to make reclaimed fluid suitable for dielectric applications. No opportunities for reclaiming have been missed because of the delay.

15. Objective: Determine effects of PCB's on birds, aquatic life and mammals. Continue studies underway. Evaluate need for extending studies to include chlorinated terphenyls, hydrogenated terphenyls, alkylated biphenyls and Pyrocel treated chlorinated biphenyls Resume fish toxicity studies. Complete by mid-1971

Status: On target. Plan has been developed and is being executed

16. Objective: Establish and maintain favorable relationships with customers, the press governmental agencies, other producers, the public and the universities.

Status: Overall our relationships are excellent

DSW 333147

POSITION DESCRIPTION

MANAGER, ENVIRONMENTAL CONTROL

SPECIALTY PRODUCTS BUSINESS GROUP

ORGANIC CHEMICALS DIVISION

DSW 333148

FUNCTION

Manages on a world-wide basis the resources made available from existing Business Groups and Staff Departments to minimize the adverse effects of the polychlorinated biphenyl environmental contamination problem. on Business Group, Division or Corporate goals.

RESPONSIBILITIES

A. Monsanto Plants

The PCB content of all effluent from Monsanto plants will be reduced and effectively controlled.

INDICATORS

1. Routine Monitoring Reports
2. Regulatory Agency Actions

Goals-1971

1. All plants to achieve target of less than 1 #/day in water effluent by September, 1971
2. All plants to achieve target of less than 1#/day in atmospheric effluent by December, 1971
3. Complete studies on removal of PCB from water effluent by 5-1-71

Co: Responsibility with:

1. Manufacturing manager
2. Manufacturing manager
3. Manager, Research

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B. Customers.

Customers will be advised of the importance of preventing PCB pollution and will be given assistance on control, reclamation, proper disposal and substitute products.

1. Marketing Plans and Results
2. Customer Plant Inspections
3. Regulatory Agency Actions

DSW 333149

1a. Execute existing PCB marketing plans for U.S.-Canada, UK-Europe and Japan.	1a. Sales Director
b. Develop marketing plan for South American, Australian and Southeast Asian markets by year end.	b. Sales Director
2. Complete modification of reclamation facilities at W.G. Krummrich plant by June, 1971	2. Manufacturing Manager
3. Complete installation of liquid incinerator at W.G. Krummrich plant by June, 1970	3. Manufacturing Manager
4. Complete installation of solid waste incinerator at W.G. Krummrich Plant by year end	4. Engineering Manager
5. Complete installation MCS-1016 distillation unit by June, 1971	5. Manufacturing Manager

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6. Develop and institute drum control program by 10-1-71

6. Sales Directo

DSW 333150

2. ENVIRONMENTAL

The effect of PCB's and their replacements on the environment will be determined.

1. Biodegradation Program and Results

2. Toxicity Studies and Results

1. Develops biodegradation program by 4-1-71. Execute as planned.

2. Execute toxicity Studies per existing plan.

1. Manage, Resear

2. Manage Environ Health

) RELATIONSHIPS

Favorable relationships will be established and maintained with customers, the press, governmental agencies, competitors, the public and Universities.

1. Unsolicited comments from all sources

2. Amount and type of press coverage

1. Continue to cooperate fully with all responsible parties

2. Agencies and laboratories visited during 1970 will be revisited at least once during 1971.

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